



**Retail Insurance Market Study
MARKT/2008/18/H**

Final Report by Europe Economics

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EXECUTIVE SUMMARY

- 1 This is the Final Report of the Retail Insurance Market Study. This work has been performed under contract ETD/2008/IM/H2/130. The Study looks at various aspects of three markets: Third Party Liability Motor Insurance (M3PL), comprehensive motor insurance and home/household insurance. Our study looks across the whole of the EU27. In addition, it incorporates comparisons to either the USA or to six individual USA States (the Selected USA States), namely Connecticut, Maine, New Jersey, New York, Pennsylvania and Vermont.
- 2 We have used a variety of data sources and research techniques in compiling this study. The primary sources have been: the collection of data from national supervisors relating to premiums, market structure, profitability and cross-border trade, and a mystery shopping exercise spanning the EU and the Selected USA States which generated many 100s of insurance quotations. These have been complemented by published literature and statistics, the collection of data from industry bodies, stakeholder surveys tailored to supervisors, insurers, insurance intermediaries and consumer bodies, interviews with stakeholders, the use of econometric and comparative analysis, and access to proprietary databases.
- 3 We wish to express our thanks to all the individuals and organisations that spared us the time and resources to help us in our work.

Market Structure

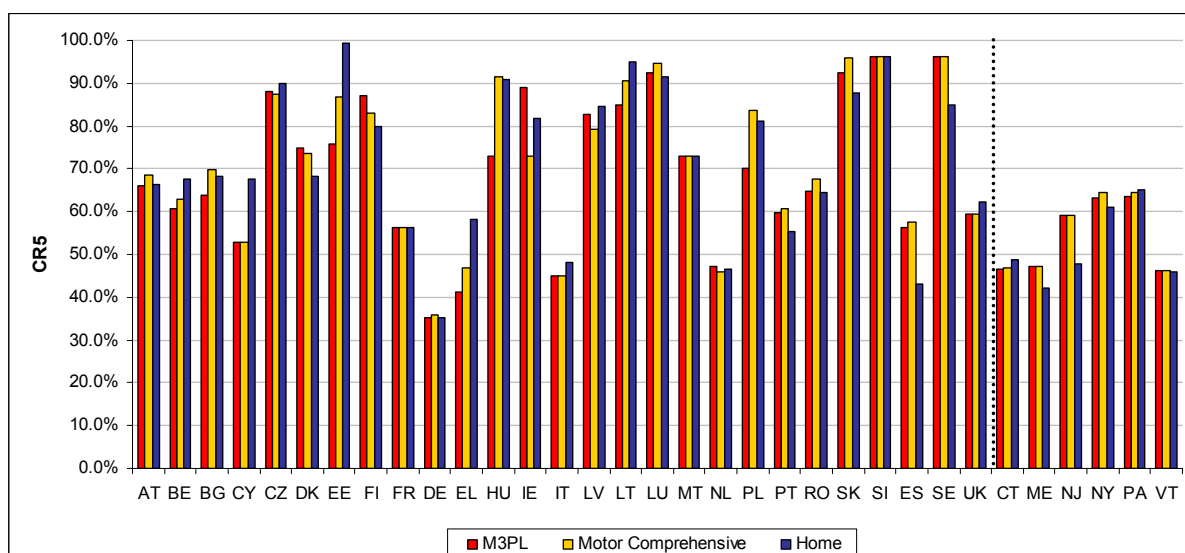
- 4 In each Member State, whilst specialist motor and property insurers exist, the leading operators are generalist, multi-line insurers operating in all three product markets. That said, in most countries there are more operators active in property insurance than in motor insurance. Indeed, in Luxembourg, the Netherlands and the UK our data indicate that the number of property insurers exceed those providing motor insurance by a factor of about 2 to 1. On the other hand, in Finland, Greece and Hungary motor insurers are in greater preponderance.
- 5 The Central and East European Member States tend to have fewer firms active and the largest share of non-domestically owned firms amongst these active operators.
- 6 Our data indicate that in the provision of M3PL insurance the number of national operators (including subsidiaries with non-national parents) is equal to or exceeds the combined total of Freedom of Establishment (FOE) and Free Provision of Services (FPS) operators active in that segment. This applies to all Member States.
- 7 This relationship begins to break down for non-M3PL motor insurance. In Belgium, Estonia, Finland, Latvia, Luxembourg and Malta there are more operators on either a FOE or FPS basis than those supervised by the host regulators.
- 8 In the property segment, it is more generally true that the number of operators on a FOE or FPS basis exceed local ones. This is suggestive of greater internationalisation in this



product line. However, the data available to us unavoidably combine commercial and personal property insurance and this is likely to be the main driver of the prevalence of both the number of firms reported as being active in this segment and of the scale of the business described in this report.

- 9 For the vast majority of Member States there is a clear link between the number of firms operating in the domestic market and the concentration ratio, i.e. a larger number of insurance firms corresponds typically to a lower concentration ratio. A key exception is represented by the UK market where, despite a high number of operators, the concentration remains significant. This may imply that there are a number of smaller, specialist operators in the UK, operating in niche parts of the market. The CR5 (the market share of the five largest operators) is illustrated in Figure 1 below.

Figure 1: Concentration Ratios (CR5)



Source: National regulators except where stated here. The relevant data were derived by Europe Economics from the trade associations of Austria, Cyprus, Greece, Hungary, Ireland, Luxembourg, Slovenia and the UK. For France and Malta the CR5 was calculated using data from the CEA relating to the non-life sector as a whole. The Slovenian CR5 also relates to the non-life sector as a whole. The market share data for the Selected USA states were derived from publications of the NAIC. In the USA, Auto Liability has been taken as the closest proxy to M3PL; Auto Total for Motor Comprehensive and Home-owners Multi-peril insurance as the best proxy for Home.

- 10 As can be seen, Germany has the least concentrated retail insurance market in the EU. On the other hand, the CR5 is above 90 per cent in all three product markets in Luxembourg and Slovenia and above 70 per cent in many markets, particularly those of Central and East European Member States. Concentration tends to be higher in the EU27 than in those USA States that we have considered.
- 11 The Herfindahl-Hirschman Index (HHI) is defined as the sum of the squares of the market shares of the largest firms and so gives greater weight to the larger firms. We have used



data on the market share of the leading operators to calculate a simple HHI.¹ In a number of the product markets (and in some countries, all three markets) the market leader has a market share in excess of 40 per cent resulting in a very high HHI. In many of these cases, this is largely driven by the continuing transition from a state monopoly that existed previously and which has often retained market leadership. For instance, in Poland, the market leader has between 40 per cent of the market in M3PL and about 50 per cent in the other two segments. Similarly, in Slovenia the market leader has over 50 per cent of the non-life market measured by premiums written. The Scandinavian countries also tend towards high levels of market concentration.

¹ For reference, a HHI of 100 or less is seen as highly competitive; 1000 indicates that a market is unconcentrated; an index score above 1000 indicates a moderate degree of concentration and a score in excess of 1800 indicates high concentration. As we explain in Section 2, the calculation of the HHI based on the leading five operators only will underestimate the score, perhaps by 2–3 per cent. A three per cent difference, for example, would mean that cut-off point between not being concentrated and moderate concentration would drop to 970. However, the associations of the HHI in this respect are not so rigorously founded such that fine-slicing in this way would be sensible.



Table 1: HHI in EU27

	M3PL	Motor comprehensive	Home
AT	951	1,011	942
BE	826	933	1,191
BG	869	1,013	1,042
CY	632	632	1,146
CZ	1,986	2,067	2,440
DK	1,698	1,626	1,383
EE	1,459	1,753	3,006
FI	1,681	1,635	1,644
FR	693	693	693
DE	352	404	272
EL	393	505	932
HU	1,756	3,016	2,102
IE	2,119	1,269	1,502
IT	455	455	522
LV	1,457	1,532	1,806
LT	1,748	2,639	2,973
LU	2,433	2,608	2,310
MT	na	na	na
NL	475	471	474
PL	1,878	2,861	2,600
PT	783	821	710
RO	854	1,164	996
SK	2,686	2,414	2,601
SI	3,406	3,406	3,406
ES	781	797	445
SE	2,370	2,479	1,837
UK	700	700	762

Source: National regulators except where stated here. The relevant data were derived by Europe Economics from the trade associations of Austria, Cyprus, Greece, Hungary, Ireland, Luxembourg, Slovenia and (in part) the UK. The Slovenian HHI also relates to the non-life sector as a whole. For France the HHI was calculated using data from the CEA relating to the non-life sector as a whole.

- 12 The retail insurance markets in the Selected USA States are, in nearly all cases, unconcentrated. In contrast, for the reasons discussed above, the retail insurance markets in around half of the Member States of the EU are characterised by moderate to high concentration.

Mergers & Acquisitions Activity

- 13 The UK, France, Germany and Italy have seen the most M&A transactions (about 48 per cent of the total M&A activity in the EU27 in the ten year period 1999–2008 occurred in these four countries). These countries have seen a significant degree of domestic consolidation with no more than one in four transactions having a cross-border component.



- 14 However, if we index total M&A activity as measured by the number of transactions with the data that we have collected on the total number of operators, then a different picture emerges. On the basis of this indexing, it is the Member States of Central and Eastern Europe that tend to have proportionately experienced the most activity between 1999 and 2008, with the level of activity in Estonia, Lithuania and Romania being notably prominent. In Lithuania for example, the number of M&A transactions exceeded the current number of market operators — this indicates a considerable degree of consolidation, albeit with some churning whereby the same business is bought and sold more than once. In these countries, the key driver of activity has generally been insurers based elsewhere in the EU27. Looking at just those cross-border transactions that have occurred in the EU27, fully 38 per cent have been acquisitions of firms based in a Member State of Central and Eastern Europe. This is significantly higher than the share of market operators based in those countries (which is just over ten per cent in home and about 15 per cent in motor insurance). Only Slovenia has failed to see a cross-border transaction in this region.
- 15 The highest levels of domestic (i.e. consolidating) M&A activity, relative to the number of operators currently extant, have been seen in Italy, Finland and Romania.
- 16 Austrian insurers have been highly acquisitive in Central and Eastern Europe (all but one of the acquisitions by Austrian companies was of a business headquartered there). Belgian firms focused their activity largely on the Netherlands and also Central and Eastern Europe. Dutch firms have also been active in Central and Eastern Europe (e.g. Poland and the Czech Republic). In way of contrast, French and German insurers have made acquisitions more broadly. This includes German firms buying well-established market operators in developed markets such as France, Italy, the UK and the USA. French firms have been rather less active in Central and Eastern Europe at least directly — a firm acquired in, for example, Spain could have operations in Central and Eastern Member States.
- 17 The preferred destination of cross-border M&A activity for UK firms has been the USA, Italy and Ireland. Firms from the USA have turned mostly to the UK, France and Italy. Swiss firms have also focused acquisitions on the larger, more developed markets, with French and German firms being the main targets.

Cross-border Activity

The scale of cross-border activity

- 18 We estimate that motor insurance premiums written on the Freedom of Establishment basis represent 1.7 per cent of the total motor insurance market in the EU. A further 0.6 per cent of the total market is written under Free Provision of Services.
- 19 In property (again, covering both home and commercial) Freedom of Establishment accounts for about 5.2 per cent of the total property insurance market. We estimate the quantum of property insurance written on a Free Provision of Services basis to be about 2.8 per cent of the total market. Anecdotally, we have been consistently informed by



- regulators — from whom the underlying data were collected — that the vast majority of this business relates to commercial insurance.
- 20 The most important firms in motor insurance written on an outgoing, branching (or FOE) basis — relative to the size of their home market — are based in Ireland, the UK, Latvia and Belgium. In absolute terms, it is UK, French, Irish and Belgian firms that dominate (accounting for 77 per cent of the total business written on a Freedom of Establishment basis). UK firms alone account for about one third of the total.
 - 21 Belgium, Germany, Ireland, Italy and the UK are, in absolute terms, the top destinations for motor insurance written on an FOE basis (relative to market size, it is the motor insurance markets of Belgium, Estonia, Ireland and Luxembourg where operators on a Freedom of Establishment basis are most important). Looking at Free Provision of Services, fully 80 per cent of the motor insurance sold on this basis in the EU is written by UK and Irish firms. Luxembourgish and Maltese firms are also important, relative to the scale of their respective local markets.
 - 22 It follows that there is significant reciprocity (particularly between the UK and Ireland). Over 27 per cent of all of the motor premiums written on a Freedom of Establishment basis within the EU were either sold by the branches of UK firms in Ireland or by the branch of an Irish firm in the UK. In Free Provision of Services activity, the proportion is lower, but still above 15 per cent.
 - 23 Similarly, one Czech insurer has a branch in the Slovak Republic (this being the only branching in the motor sector by Czech insurers), but volumes are not significant. The reverse holds for Slovak firms with one branch selling motor in the Czech Republic, albeit at higher volumes of business. However, such reciprocity is far from automatic — for example in the Baltic States one Lithuanian-based insurer is active in Latvia and one Latvian firm is active in Estonia (with an 8 per cent market share in the motor market), with two Latvian firms active in Lithuania. However, Estonian firms do not appear to be active in Latvia or Lithuania either under Freedom of Establishment or Free Provision of Services.
 - 24 In the property segment, it is Belgium, Ireland, the UK and Cyprus from which most insurance business is written under Freedom of Establishment (relative to the scale of the domestic market). Firms from Ireland and the UK are the most important in absolute terms. On an incoming basis, business is well-diversified geographically. This is likely to be a reflection of the mixing of commercial and domestic business streams in the available data.
 - 25 Free Provision of Services business remains relatively small scale, but it still performs a constructive role — for instance, servicing niche markets such as an expatriate community. For example, Luxembourgish companies are active predominantly in the neighbouring states of Belgium, Germany and France servicing the insurance needs of the estimated 6–8,000 Luxembourgish who have relocated to these countries to access more affordable housing.



- 26 Overall, we have found that, unsurprisingly, cross-border activity tends to come from those firms based in countries with more developed insurance markets and is destined for larger, nearer markets. The data that we have do not discretely identify active firms — however, whilst it is likely that it is the larger firms that predominate it is clear that the Freedoms are not monopolised by the largest firms. The greater share of business developed under the Freedoms in property (particularly commercial) insurance correspond to the idea that demand from businesses exceeds retail demand. Commercial insurance is more likely to be bespoke in design (i.e. it may require skills or knowledge less readily available locally) and have larger risk exposures.
- 27 We were able to access data on activity levels from all Member States. For nearly all of these, we were able to obtain country by country breakdowns for the scale of activity in each segment. We used this dataset to create an econometric model to identify robustly the drivers of FOE and FPS activity. In general, this analysis found that cross-border insurance provision is mostly driven by the availability of supply-side resources, by the size of the destination market (and hence the opportunity), and by geographical distance (which, even in the internet age, will still tend to reduce the marginal cost of service provision). Richer countries (high GDP per capita) typically have the larger firms (correlated to higher non-life premiums) which are looking for opportunities abroad. In the first instance, these firms will look at neighbouring countries (contiguous borders), with a preference for those locations where the market opportunity is (GDP per capita, higher revenues). Interestingly, a common language did not have a strong statistically significant influence on business volumes.

Obstacles to cross-border business

- 28 The perception is that the absence of a local presence in the policyholder's country of residence significantly impacts upon customer demand. From the supply-side: differences in insurance contract law limit the cross-border opportunities, leading to costs being incurred in checking compliance with local law (and also potentially related to the re-design of those products) or even expose the insurer to additional risk; availability of the statistical data necessary to populate the actuarial models underpinning the calculation of premiums is also perceived to be an issue in at least some markets; and cross-border claims management remains complex and expensive for insurers.
- 29 We found no evidence for the existence of products that are currently sold to consumers on a pan-European basis. Whilst products are offered that provide cross-border coverage (over and above the minimum levels set out in M3PL products) many insurers are reluctant — as a matter of course — to incorporate such offerings into their standard product line. Some of those insurers with extensive networks outside their domestic market may simply prefer to hand over such business to the local office. In addition, the claims management is seen as too complex and too sensitive: it requires a local touch to be cost effective. These insurers believe that it would not be cost effective to offer such a policy in the normal course.



- 30 However, in a narrower sense, the insurance industry does provide products that offer additional, extra-territorial cover (e.g. over and above those minimums set down within M3PL legislation to protect EU citizens in the event of an accident outside the country in which the insurance product was bought).
- 31 Similarly, for products such as motor and home insurance, many product features will be common across the various countries in which a specific firm operates. For example, a firm may seek to gather the same variables about customers in each market in which it operates. One leading insurer that we interviewed confirmed this intuition explicitly — it has a centre of excellence in price optimisation of motor insurance that applies to all of its European operations (although it does not have a permanent presence in all EU national markets). The price calculation model that it uses has mostly (but not exclusively) common components across all of these markets.

Initiatives to enhance cross-border claims management

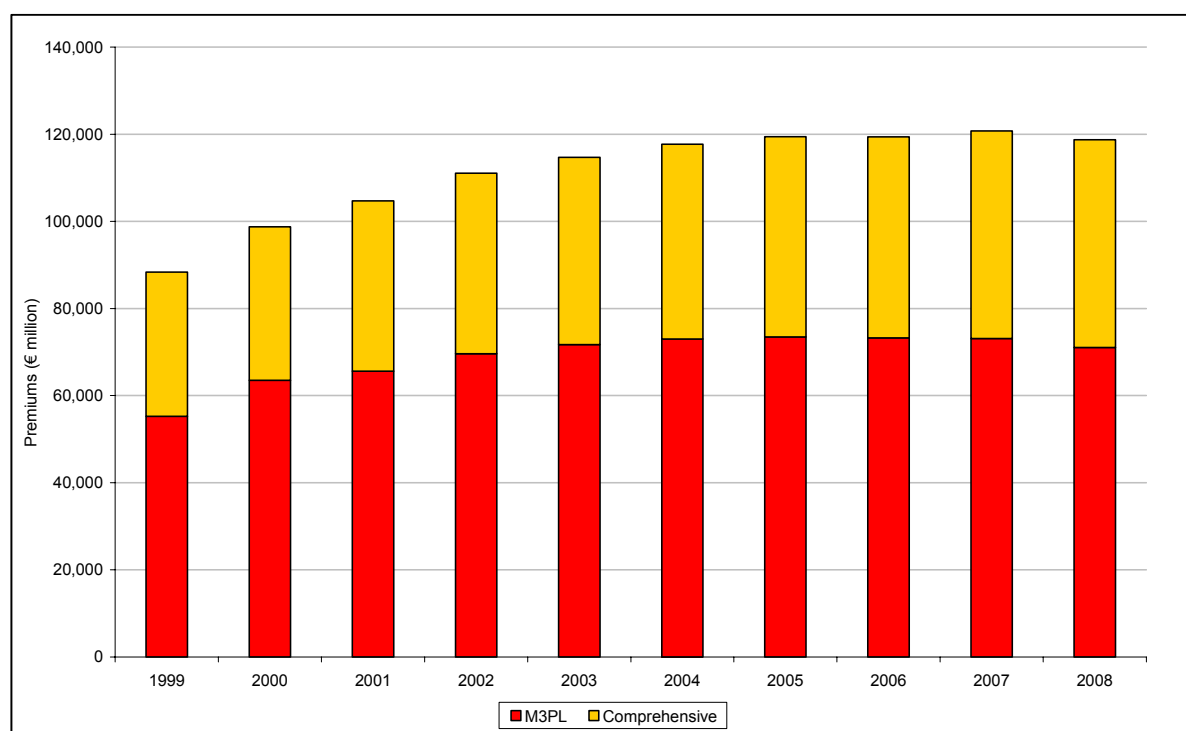
- 32 A number of potential mechanisms have been put forward to enhance cross-border claims management:
- Improved awareness of consumer rights (e.g. through factsheets).
 - Improved, or more consistent, access to Alternative Dispute Resolution.
 - The harmonisation of EU consumer disclosure obligations and other consumer laws (i.e. common law of misrepresentation and unfair contracts regime, etc)
 - Improved relationships between the claims representatives and the company.
 - The harmonisation of claims handling procedures and standards (e.g. compensation time limits and improved enforcement) in order to reduce consumer uncertainty.
 - Amendments to data protection rules to enable the improved exchange of information about fraud (a reduction in the perceived risk should streamline the process for insurers).
- 33 In addition, to the extent that improvement in cross-border claims management processes would reduce cost (directly or else through improved customer retention), the industry has a pecuniary incentive to take action independently. To some extent, this overlaps with existing efforts to reduce the time spent on claims administration. However, for those insurers with extensive cross-border interests, it could involve the improved sharing of know-how and the implementation of common IT platforms (e.g. to reduce the re-input of data and documents and waiting time).



Evolution in Premiums and Profitability in Motor Insurance

- 34 Europe has the largest motor insurance market in the world, with almost 300 million vehicles on the road and total motor insurance premiums in the EU27 of just under €119 billion in 2008. However, the market has not exhibited real growth since 2005 and shrank in nominal terms in 2008.

Figure 2: Total Motor Premiums for EU27 by Sector, 1999–2008



Source: Comité Européen des Assurances (CEA), Europe Economics (EE) analysis

- 35 The market in the EU27 is largely dominated by that in France, Germany, Italy, Spain and the UK, which together account for just under 75 per cent of all motor insurance premiums. Of these major markets Italy, Germany and the UK are all struggling to achieve positive growth even on a non inflation-adjusted basis. Indeed, the onset of more challenging economic conditions in 2008 resulted in an increased number of markets with declining aggregate premiums. In 2007, year-on-year motor insurance premiums declined in Germany, Ireland, Italy, the Netherlands, Portugal and Sweden. In 2008, all the markets in all of these countries continued to shrink, but were joined by Austria, Hungary, Malta and the UK (with the latter recording the sharpest decline). France and Finland were, on the other hand, stable in nominal terms in 2007 and returned to (small-scale) growth in 2008.



- 36 Hungary was the sole CEE Member State to record a year-on-year decline in aggregate premiums.² However, a number of others saw significant declines in growth rates — in particular in Estonia, Latvia, Lithuania and Romania. The rate of year-on-year growth accelerated in the Czech Republic.
- 37 The penetration of motor insurance tends to be around one per cent of GDP (slightly below this level in the EU27, slightly above this level in the Selected USA States).
- 38 M3PL is a homogenous product (at least within national boundaries), driven in part by statutory obligations to have at least this minimum level of insurance. This has tended to make it a very price sensitive market. Growth has been driven to a large extent to changes in motorisation (i.e. the proportion of the population with a car), changes in the quality of the stock of vehicles and increases in the compensation limits associated with M3PL policies (all of these trends are particularly apparent in the CEE Member States).
- 39 Retail insurance is a market where distribution is frequently separate to “manufacture”. Key forms of distribution include:
- Direct sale by the insurance companies. Historically, this implied a significant network of offices staffed by salespeople. However, over the last decade or so, “direct insurers” have emerged, focused only (or at least primarily) on direct sale to policyholders over the telephone or (latterly) over the internet. This is in essence a low cost concept. Whether the lack of face-to-face contact affects quality is for an individual policyholder to determine.
 - Sale through a network of tied agents. This can be characterised as an outsourced sales network (particularly where the agents are tied to one insurer only). This can be a highly cost-effective form of distribution: however, it is important that the policy-holder is aware of the status of the agent (specifically, that there is no confusion in status with an independent intermediary, as described below). This form of distribution is in retreat nearly everywhere. However, distribution at Point of Sale (POS) is somewhat similar and this is on the increase. POS is similar in the sense that the choice of insurer is generally limited (often to a single insurer); the fundamental difference is that the sale of insurance is ancillary to the main business.³
 - Sale through independent intermediaries (frequently known as brokers). In this model, it is the consumer who is outsourcing an activity — in this case the search for the “best” policy — to the intermediary. It is generally accepted that where

² For the avoidance of doubt, we include here: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.

³ As we have argued elsewhere (e.g. our study on Credit Intermediation in Europe, 2009, on behalf of DG MARKT) there is a trade-off between the convenience of purchase of financial services products at POS (with a reduction in the search cost for the consumer) but also (mostly) an increased cost (i.e. in case, a higher premium).



products are relatively homogenous, a significant market share in distribution for independent intermediaries has economic advantages.⁴ In some markets this role is being cannibalised by internet-based price comparison websites.

- Sale through bancassurance partners and by other means. Where banks and insurers share common ownership (or some other form of contractual arrangement), an attempt will normally be made to exploit distributional synergies and to cross-sell financial services products.

Table 2: Distribution Models in the EU

Source(s)	Direct	Intermediaries: agents (tied and multiple)	Intermediaries: Brokers	Other (bancassurance, post office, etc)	
Austria	CEA / BIPAR	40%	15%	35%	10%
Belgium	CEA / BIPAR / Interview	20%	10%	60%	10%
Bulgaria	FSC / CEA	10%	45%	45%	na
Cyprus	Stakeholder interview	50%	40%	10%	na
Czech Republic	na	na	na	na	na
Denmark	BIPAR	40%	na	15%	45%
Estonia	BIPAR	30%	10%	50%	10%
Finland	BIPAR / Interview	70%	10%	15%	5%
France	CEA	35%	35%	18%	12%
Germany	BIPAR / Interview	5%	40-45%	25-30%	25%
Greece	BIPAR	0%	70%	18%	12%
Hungary	Stakeholder interview	13%	67%	10%	10%
Ireland	BIPAR	25%	5%	70%	na
Italy	CEA	5%	85%	10%	na
Latvia	Stakeholder interview	25-30%	40-50%	20%	10%
Lithuania	BIPAR	na	na	33%	67%
Luxembourg	CEA / BIPAR / Interview	na	90%	10%	na
Malta	MFSA / BIPAR	15%	45%	40%	na
Netherlands	VVV / BIPAR / CEA	35%	10%	55%	na
Poland	CEA / BIPAR	25%	55%	15%	5%
Portugal	CEA / BIPAR	10%	60%	17%	13%
Romania	na	na	na	na	na
Slovakia	CEA / BIPAR	8%	40%	50%	2%
Slovenia	CEA / Interview	20%	70%	8%	2%
Spain	CEA / BIPAR / Interview	15%	50%	20%	15%
Sweden	BIPAR / Interview	10%	40%	5%	45%
United Kingdom	Interview / ABI	44%	8%	35%	13%

Key: CEA is the Comité Européen des Assurances; VVV is Verbond van Verzekeraars; MFSA is Malta Financial Services Authority; ABI is Association of British Insurers; FSC is Financial Supervision Commission; BIPAR is La Fédération européenne des intermédiaires d'assurances (the European Federation of Insurance Intermediaries).

- 40 We wish to highlight two aspects of the above diversity. First, tied agents clearly remain the main distribution channel in Germany, Greece, Hungary, Italy, Latvia, Luxembourg, Poland, Portugal, Slovenia and Spain.
- 41 Second, there is a second group where independent intermediaries have in excess of one third of the distribution: Austria, Belgium, Bulgaria, Estonia, Ireland, Malta, the Netherlands, the Slovak Republic and the UK (with just the markets in Belgium, Ireland

⁴ See, for example, work by Autorita' Garante della Concorrenza e del Mercato, AGCM, the Italian Competition Authority, in its commentary on the Bersani Decree (Press release 2, 2007).

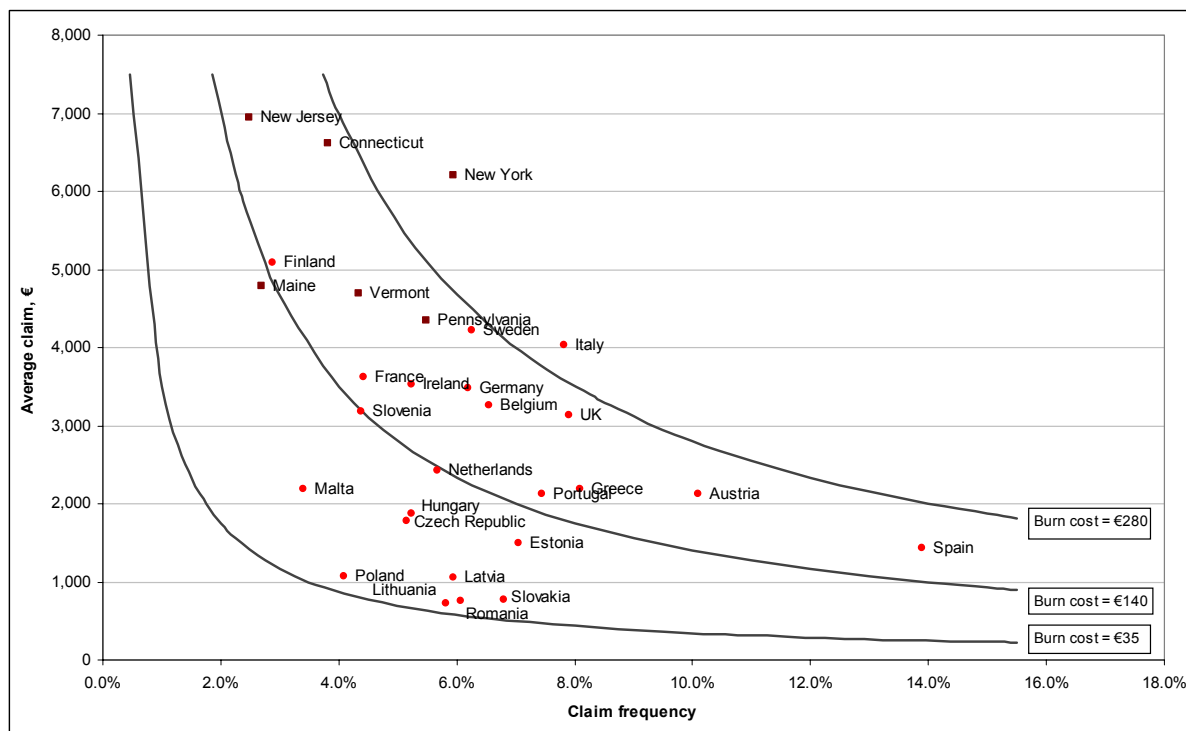


and the Netherlands having a clear majority of distribution handled by brokers). What is apparent from a comparison of these two listings is the absence of evident rhyme and reason to the two: the distribution models have developed in somewhat idiosyncratic fashion and, if there is to be convergence, it is not at all clear what that model would be (although it is likely that technology — particularly internet-based solutions — will act as a key force for any change).

- 42 One further determinant of the insurance market's efficiency is the willingness of policyholders to switch provider. At present, switching rates vary very significantly across Europe: from a low of less than 10 per cent in, for example, Italy to the highest rates (perhaps above 30 per cent) in the UK. Switching tends to be higher in motor insurance than in home insurance. A major factor here is that claims are more frequent in motor insurance and the result of making a claim tends to be that (i) a policyholder becomes better informed about the actual service quality of the insurer — for good or bad), and (ii) the tariff is likely to be revisited by the insurer, since the insurer also has a new information set (based upon the claim made). In addition, a further spur to a policyholder to revisit his or her insurance provider is when the insured property changes — and people change car more often than they change house.
- 43 The key drivers of cost in the insurance industry are claim frequency and average claim value. The product of these is the “burn cost” which is equivalent to the average claim per insured (regardless of whether that policyholder makes a claim or not). In a fully efficient market — one without the friction caused by the insurer's costs and that was wholly actuarially fair — this would be the price of insurance in these markets. The significant variation here is illustrated below in Figure 3 for M3PL (Bodily and Auto Liability in the USA).



Figure 3: Variation in Claim Frequency and Claim Value in the EU27 and the Selected USA States

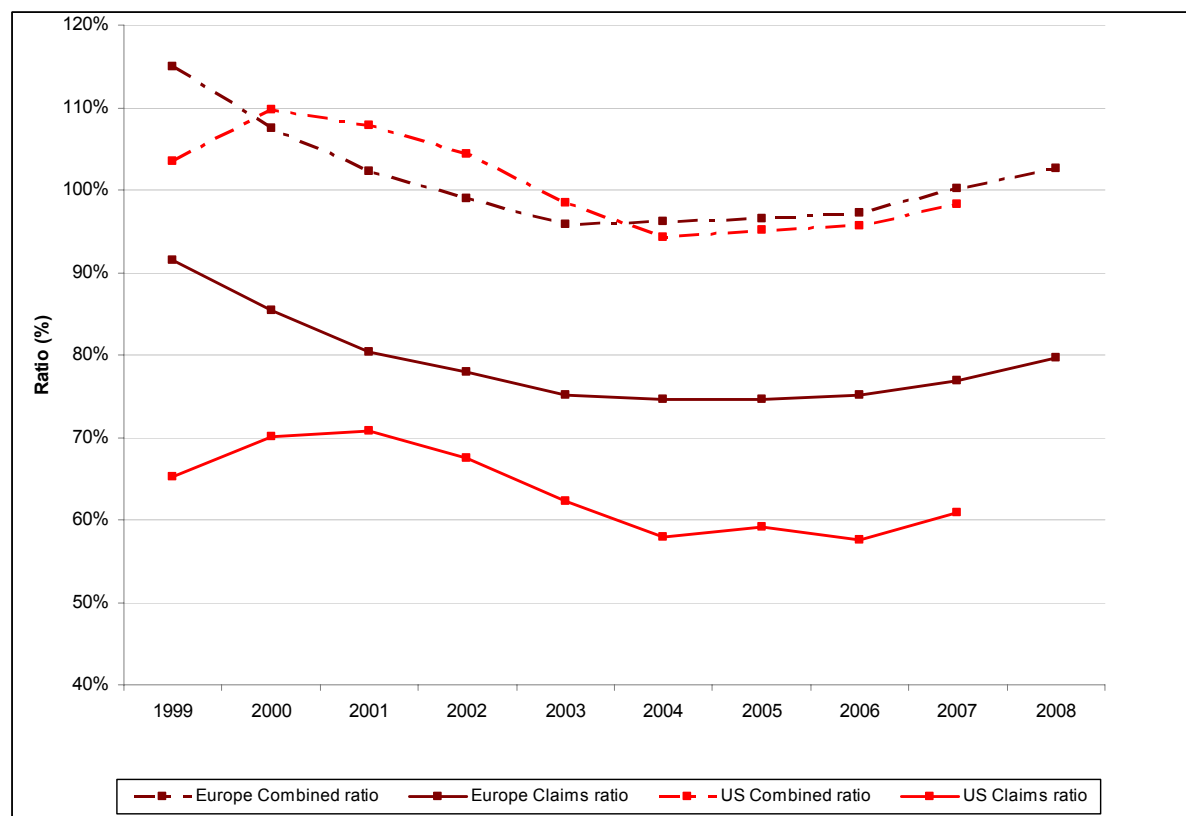


Source: Comité Européen des Assurances (CEA), National Association of Insurance Commissioners (NAIC) (Selected USA States), Association of British Insurers (ABI) (UK), Irish Insurance Federation (IIF) (Ireland), Malta Financial Services Authority (MFSA) (Malta), Magyar Biztosítók Szövetsége (MABISZ) (Hungary), Verbond van Verzekeraars (VVV) (the Netherlands), EE calculations

- 44 In the USA, claims frequency tends to be lower but average claim values is significantly higher — the latter driven in particular by medical costs. There is also a clear divide between the Member States of much of Central and Eastern Europe and the rest of the EU27. In this context, very significant variation in insurance prices is inevitable.
- 45 Motor insurance prices in the EU increased between 1999 and 2003, but have since declined in real terms. The claims ratio in the EU27 motor insurance market experienced some improvement in this period, falling from over 90 per cent to about 75 per cent over this time before stabilising at this latter level. However, the combined ratio, taking both claims and expenses into account, only fell below 100 per cent from 2002. Improved efficiency of the industry (measured relative to premiums) and the secular decline in claim frequencies also contributed to this improvement. This is illustrated below.



Figure 4: Evolution of the Combined and Claims Ratios for Europe and USA, 1999–2008



Source: CEA, NAIC

- 46 Since 2003, the real depreciation in premiums (at least in some of the most significant markets such as the UK and Germany) has offset a continuing fall in claims frequency so that the claims ratio has stabilised. The expense ratio has increased (this implies that wage inflation has exceeded efforts at improving productivity) so that the combined ratio has crept back upwards in the EU.
- 47 In the USA the claims ratio is lower than in the EU whilst the expense ratio is higher. There has been increased convergence of the combined ratios in the USA and the EU over the period. This may be symptomatic of increased globalisation of the insurance industry.
- 48 There is evidence here for an insurance cycle whereby insurers have periods both of strong competition when margins are squeezed and of recuperation when reserves can be accumulated. The slight increases in the combined ratio in 2006, 2007 and 2008 may suggest the industry is about to enter into the next 'reduced profit' cycle.
- 49 It is also interesting to note that the Selected USA States appear more homogeneous — drivers of this must include cultural similarities (all of the States are in the north-east) and also the fact that the companies that are the market leaders vary significantly less from State to State in the USA than from country to country in the EU27. An examination of the listing of the leading five operators (Appendix 2) immediately reveals this.



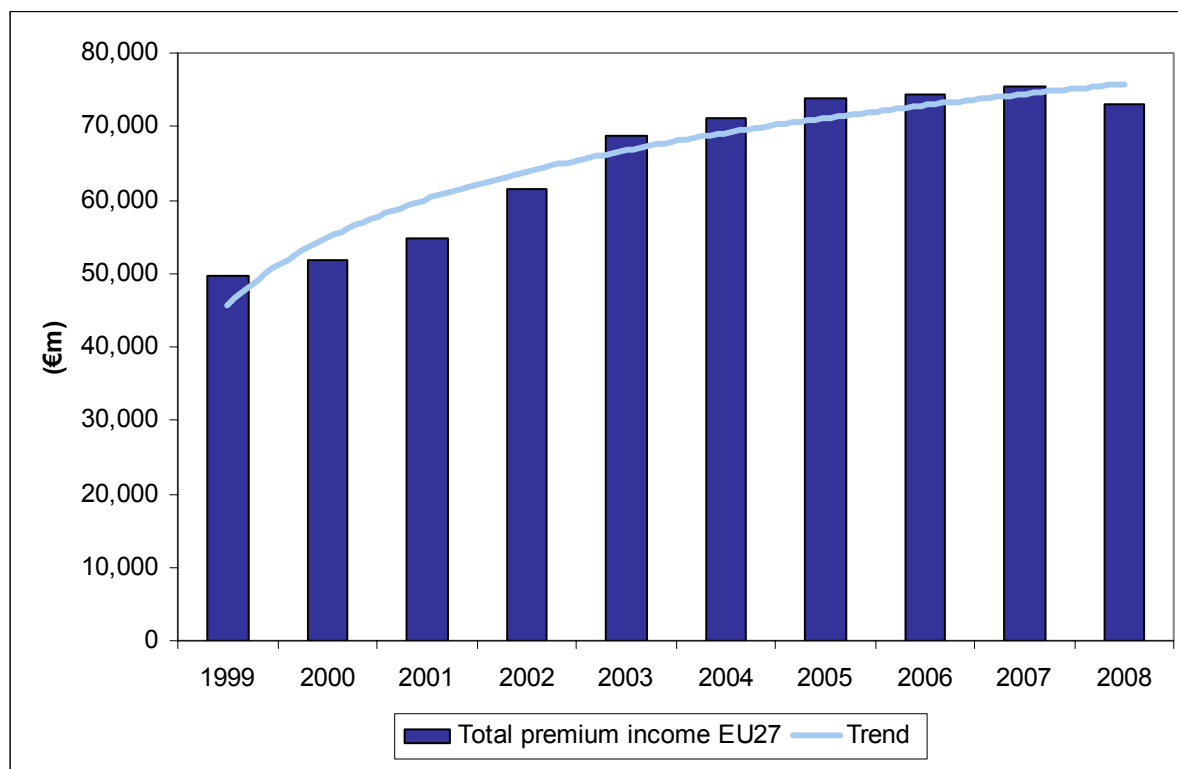
- 50 In the EU, the divergence is much more significant. German insurers have tended to have the highest claims ratios in motor insurance, averaging in excess of 90 per cent over the last decade. Insurers in the UK, Finland, Sweden and France have all averaged claims ratios in excess of 80 per cent. The motor insurers in all of these countries are relatively efficient, as indicated by low expense ratios (ranging from 17 per cent in Germany to 24 per cent in the UK). However, despite this, the insurers in these countries have tended towards chronic loss-making at the underwriting level, with net profitability (where achieved) being reliant upon investment returns based upon the premiums received.
- 51 At the other end of the scale, motor insurance in the Czech Republic, Hungary, Lithuania and Slovakia have averaged claims ratios of below 60 per cent over the past five years (since tariff liberalisation is a recent event in these countries, a shorter timeframe is appropriate). Whilst the expense ratios are higher in these countries (implying lower efficiency), motor insurance has been profitable even at the underwriting level.

Evolution in Premiums and Profitability in Home Insurance

- 52 Similar to the experience in motor insurance, the last few years have not seen any growth in real terms in the size of the market, which stood at just over €74 billion in 2008. The earlier period of growth was driven largely by increasing penetration of insurance in the CEE Member States and significant market growth (in absolute terms) in the UK, Ireland, Sweden and Spain. Indeed, the UK accounted for 25 per cent of the change in total premiums in the EU in the period 1999–2008.



Figure 5: Total Premiums in the EU27, 1999-2008



Source: CEA, EE calculations

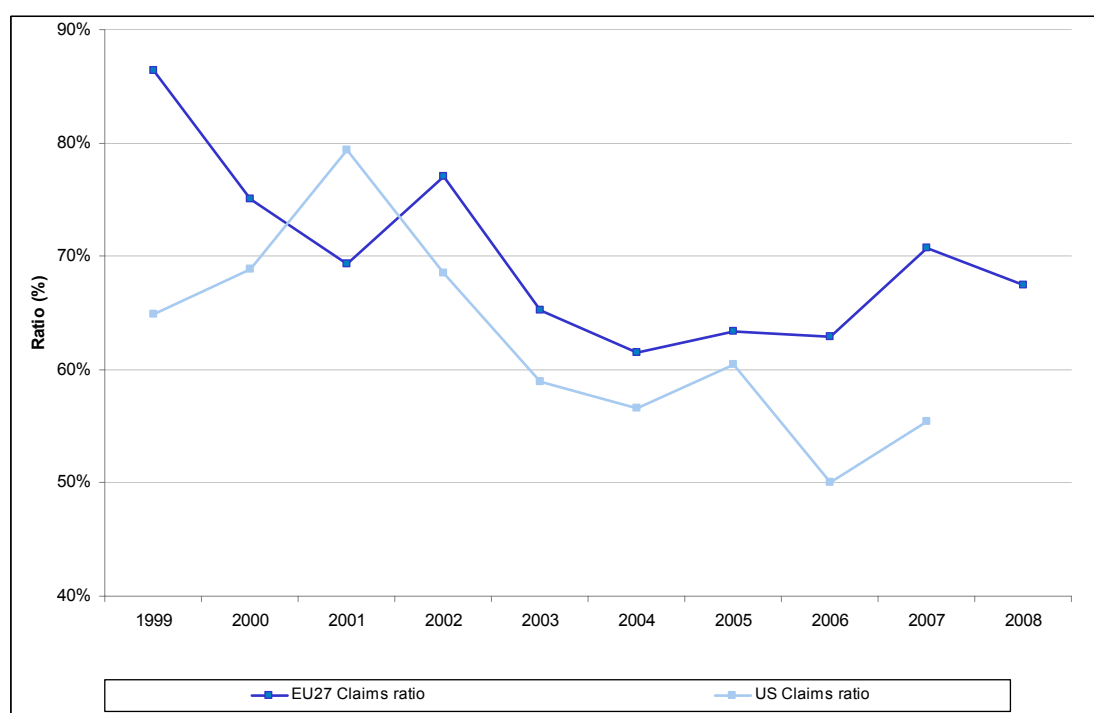
- 53 As a general rule, the fastest growth was focused in the CEE Member States, Malta and Cyprus. Indeed, looking at those ten markets recording the fastest rate of growth between 1999 and 2008, the only exceptions to this general rule were the markets in Greece and Spain.
- 54 As is apparent from Figure 5, aggregate premiums reversed in 2008. This was driven by events in the UK, Spanish, Swedish and Greek markets. There is a certain symmetry here to the markets that have had grown the most in the previous years.
- 55 In home insurance claim frequency is driven by a mix of factors: meteorology (both the normal weather and natural catastrophes⁵); fire; burglary (for contents insurance); and subsidence. Of these, it is weather-driven events that drive much of the volatility in the claims ratio and hence profitability. In Europe, these are typically related to winter and wind storms and (where insured by the market) summer floods. The other factors are generally either stable or subject to secular trends that an insurer can, at least in theory, anticipate and pricing anticipated changes into products. The value of claims is related to

⁵ Natural catastrophes can, of course, also arise from non-meteorological causes (e.g. earthquakes). Some of the damage linked to the weather can be somewhat indirect — subsidence is, for instance, causally linked with very dry weather.



the cost of restitution: the key drivers are the cost of building repair (and, in extreme cases, the cost of re-building) and of making good the items within the home.

Figure 6: Evolution of the Claims Ratio in Property Insurance in the EU and the USA, 1999–2008



Source: National supervisors, CEA, NAIC, EE analysis

- 56 In 2007 the combined ratio in the EU27 for property insurance was just above 100 per cent (driven significantly by severe meteorological events such as Winter Storm Kyrill) and this ratio dropped below 100 per cent in 2008. In the previous three years the combined ratio had moved in the range of 89 to 95 per cent. This is somewhat above the experience in the USA (i.e. the European business is less profitable).
- 57 The claims ratio tends to be lower in property and home insurance than in motor insurance. Insurers in Denmark, Finland, France, Germany and Spain have had the highest claims ratios (in excess of 70 per cent) over the past ten years. Expense ratio are equivalent or higher than in motor insurance — ranging between the low twenties per cent in Denmark and Finland up to 30 per cent in Germany. Again, this means that performance at the underwriting level has been weak.
- 58 This is in striking contrast to the experience of insurers in Bulgaria, Hungary, Cyprus, Malta, Romania and Slovakia, where over the past five years the claims ratio has averaged below 40 per cent per annum. On the one hand, one can rightly argue that an important difference between motor and home insurance is the likelihood of a catastrophic event that will affect many insured assets in a highly correlated way (e.g. due to a major flood or even an earthquake). As such, insurers need to build reserves to fund these



exposures (to the extent that they cannot be reinsured). However, these are very low levels of payout. Whilst expense ratios are often typically a little higher in property insurance relative to motor insurance, these do not exceed 40 per cent in any of these countries — profitability is at least 20 per cent of premiums earned.

- 59 There is a degree of commonality between the above list and that for motor insurance, both in terms of those countries with high profitability and those with low. Of course, the differential in historic underwriting performance that this identifies has an explanatory role in the direction of the M&A activity described above (and in greater depth in Section 2).

Mystery Shopping

- 60 We conducted an extensive data gathering exercise across the EU27 as well as a number of US states. In total more than 2,000 quotes were gathered across nine different profiles (six for motor insurance and three for home insurance).
- 61 A number of econometric models were then developed and estimated in order to assess the main determinants of premiums. Of course, there are limitations upon what the econometrics can explain: it is not possible to adjust robustly for quality differences (say in terms of service differences between an online only insurer and one with a more traditional model) or eliminate all of the differences in a policy's small print. Nevertheless, the results are, for the most part, in line with expectations and we consider the resulting analysis useful.
- 62 Our econometrics focused on premiums quoted excluding taxes. Differences in taxation would otherwise be a significant explanatory variable in its own right.

Motor insurance

Main determinants

- 63 For all forms of motor insurance the main determinant of the premium is the experience of the driver. On average a driver with an additional year of experience would save between 1.5 and 3 per cent on his or her quotation.
- 64 The power of the car is also an important determinant of the level of premiums as is the per capita GDP of the country where the cover is obtained. Both these variables are likely to be associated with the value of claims and so have the effect of increasing the premium. Increased power of the car can also be associated with increased claim frequency (e.g. as a target for vehicle theft). Unsurprisingly, a higher excess is associated with lower insurance premiums.
- 65 A comprehensive policy incorporating first and third party elements is, on average, 80 per cent more expensive than M3PL cover.



Gender and age

66 There remain a number of Member States that allow insurance companies to differentiate pricing on the basis of gender. And among those Member States only a subset of insurance companies do take this variable into account. On *average* therefore there is no evidence of male drivers paying higher premiums than female drivers. In some countries however differences are present and are non-trivial (see 75 to 78 below).

Nationality

67 We have found very little evidence of companies differentiating in price on the basis of nationality. In the vast majority of Member States, no distinction was made (indeed, nationality did not always feature as a question). In the few countries where it made a difference, there are plausible ways of rationalising the result. For instance, in the UK and Cyprus it seems likely that inexperience of left hand driving is taken into account; in Germany, inexperience of autobahn driving. There was also very limited evidence of discrimination (i.e. the situation where a quotation would be available to locals but not foreign nationals), and this was typically in the same countries as the price differentiation was found. As such it is capable, at least, of being rationalised in the same way.

Regional variation

68 There is considerable variation in the level of quotes within Member States as well as across Member States. In some cases the same policy holder can pay twice as much depending on the place of residence.

69 Unsurprisingly the variation tends to be larger in the larger countries — Italy, Germany and the UK frequently had the greatest degree of intra-country variation in quoted premiums. On the other hand, the insurers serving Spain and France — at least in terms of the sample of quotations that we received — exhibited rather less variation in pricing.

70 We were not able to access data on regional variation on all countries. However, for that set for which we have data, it is worth noting that the least variation tended to be found in the following (smaller) Member States: Belgium, Bulgaria, the Czech Republic, Estonia, Finland, Greece and Slovakia. In fact there was no substantial variation *by region* in the quotations that we obtained from the insurers serving the Slovak motor insurance market.

Home insurance

71 In our mystery shopping we constructed three profiles against which we gathered quotations for structural and contents insurance.

Main determinants

72 Our econometric analysis shows that there are two main determinants of the level of home insurance premiums: the value of the property to be insured and the value of the



contents to be covered. This corresponds to the evidence that we have obtained in dialogue with market participants.

- 73 Somewhat surprisingly, we could not match up the results of our mystery shopping exercise to either the incidence of natural disasters (measured by floods, storms, etc) or of crime (measured by registered burglaries). This was despite efforts both to localise the datasets in each case (using European Environment Agency data in flood prevalence in the UK, for instance) and to take into account the detail of the policy upon which the quotations were obtained (i.e. in order to check whether damage from say flooding was part of the policy's exclusions).

Regional variation

- 74 Although some variation is present for home insurance quotes within countries this is considerably less than for the motor quotes. Where found, it was again the larger countries which had greatest scope for variation in pricing, in particular Italy, Germany and the UK once again. Austria, Greece (again) and Portugal exhibited the least intra-country variation in pricing.

The Impact of Legislative Change

- 75 In our mystery shopping, we investigated the price difference between male and female quotes received by us for otherwise identical individuals. Gender-driven price differences are normally greatest in motor insurance — when found — in drivers aged under 30–35. To illustrate, one of our mystery shopping profiles was for a 22-year-old driver seeking M3PL, Fire and Theft cover. The difference between the lowest male and female quotes expressed as a percentage of the lowest female quote was about 75 per cent in Ireland (however, only one quotation was obtained each), 40 per cent in Spain, 30 per cent in the UK, 20 per cent in Italy and 5 per cent in Germany.
- 76 One of the factors underlying the superior safety record of female drivers is believed to be a tendency (on average) towards higher risk aversion (at least relative to young males). This implies that the price elasticity of demand for insurance from the average woman will be more inelastic than that of the average man. This argument means that there is an *a priori* reason to anticipate insurers setting unisex rates for voluntary cover types (such as accidental own damage and legal expenses) closer to the pre-existing male premium than to the female premium.
- 77 This was particularly notable for young drivers in Ireland, Italy, the UK, Spain and Germany. However, in a profile looking at the cheapest quotations for M3PL insurance of a performance car (a BMW X5) by a 38-year-old, a lower price was available to the *male* driver in Germany, Italy and Sweden. It follows that some care is required to avoid overly simplistic generalisations.
- 78 In our stakeholder survey, respondents from Belgium, Bulgaria, and Slovenia were either neutral about average premium effects or believed that average premiums had increased as a result. Indeed, an interview with a Belgian insurer revealed the following: that prior to



the implementation of the Gender Directive, the insurer had distinguished between male and female drivers between the ages 18–30 (with some other Belgian insurers differentiating across the policyholder’s entire lifespan). Post-implementation, the insurer had increased prices for women but had not been able to discern any change in the demand for non-mandatory insurance covers, over and above the normal fluctuations in demand that are inherent in any market.

- 79 Looking at the last ten years, tariff liberalisation has applied to most of the M3PL markets of the countries acceding to the EU in that time. These markets are now perceived to be more competitive than was the case prior to liberalisation. This is attributed fairly evenly to increased competitive pressure from domestic firms and also to increasing competition due to foreign firms either entering the market (through M&A activity) or (to a lesser extent) setting up under either a Freedom of Establishment or Free Provision of Services basis.
- 80 Increased competition should result in lower prices than would otherwise be the case. At the same time, product innovation has occurred (with, say, the introduction of additional product elements such as breakdown cover) and the compensation limits attached to M3PL products have increased (in some cases, quite dramatically). A reasonable conclusion would be that liberalisation has worked to some extent to offset other factors that would otherwise lead to (greater) increases in price. Only if the state- or supervisor-set prices in place previously had been set at an artificially low level would prices have increased *exclusively as a result of liberalisation*. In our analysis of the motor insurance markets (in Section 6) we comment where possible on the experience of individual countries.

Innovation in Insurance Pricing

- 81 Pay as you drive (PAYD) is a significant innovation aimed at matching pricing to actual risks taken. PAYD involves the usage of GPS technology to match pricing to mileage, time of day and type of road used.
- 82 The fundamental idea behind PAYD is that a driver’s behaviour changes in response to the clearer price incentives that the system presents. For example, if driving at night increases the likelihood of accidents then the cost of insuring driving at night will be higher — relative to distance travelled. The result is that drivers will drive less at night. Experience indicates that in general with PAYD mileage reduces (and emissions with it) and that accidents also decline. Similarly, the in-car technology required to monitor usage can be engineered so that it can assist in the recovery of stolen vehicles or in the provision of emergency services in the case of an accident.
- 83 However, PAYD is not without its problems: for policyholders, it can be overly intrusive; for insurers, the fundamental problems are that it is costly to install (since the relevant “black box” is not fitted as standard) and to maintain. As a result PAYD is perceived as being difficult to turn into a mainstream product.



- 84 At present, PAYD remains in a developmental phase with rather more insurers awaiting events than actually deploying it. It may be that PAYD is awaiting further technological development in order to reduce its costliness.

Initiatives to Reduce Claim Frequency and Claim Value

- 85 There are a number of initiatives with the capability of reducing claim frequency and/or average claim values. PAYD, as we have discussed above, is one of these.

- 86 We consider the following to be of particular interest:

- (a) Rehabilitation. In the event of a serious car accident, ensuring that policyholders in need of rehabilitation services, not only receive them, but do so in a timely manner, can serve to lower the long terms costs to the insurer (and to policy holders) associated with protracted health care requirements, etc and (potentially) make the difference between the ability to return to an active life (including work) or not. Significant cost savings have been achieved in Finland through the development of rehabilitation services in cooperation with the Finnish authorities, service providers and client associations. Given the cost effectiveness of this approach, we believe that further voluntary initiatives at the national level by the insurance industry are likely.
- (b) Claims settlement. Ireland responded to mounting concern over inflation in claims values and the time taken to achieve a settlement by establishing the InjuriesBoard.ie (formerly known as the Personal Injuries Assessment Board). This independent body assesses the amount of compensation due to a person who has suffered a personal injury where liability is not in dispute (Ireland operates a fault-based regime). Statistics from 2008 show that the average saving per accepted award versus litigation was €8,900. The total savings on accepted awards were claimed to be €50 million out of a total for private motor insurance claims of €840 million. This may be an appropriate approach for those Member States where Alternative Dispute Resolution is less common. However, given the requirement to tailor any approach to local civil law and practice, the burden here seems to lie with the Member States in the first instance.
- (c) Uninsured drivers. Uninsured drivers are generally believed to cause more accidents than insured drivers, thereby contributing to higher claims frequency. In the event of a crash where uninsured drivers are involved, the insured party is normally covered by a 'guarantee fund' funded by insurers (and indirectly by the insured drivers). In the UK for example, it has been estimated that meeting the cost of claims against uninsured drivers increases the average yearly motor premium by approximately £30 (approximately €33).⁶ The rate of uninsured drivers relative to all drivers varies

⁶ UK Motor Insurance Bureau analysis, 2009.



significantly between Denmark and Germany where it is estimated at less than 0.1 per cent, and countries such as Romania where it may be as high as 25 per cent.⁷

In the UK the Motor Insurers Database was set up by insurance companies and holds the details of all vehicles and drivers insured in the UK. The UK police have instant electronic access and make an estimated 3.8 million enquiries a month. In Belgium, the Motor Rating Bureau (operational since 2003) provides cover to those drivers who are difficult to insure. An alternative approach is to prevent the problem in the first place: in Denmark vehicle registration, the issuing of licence plates and the taxation of new cars is linked directly to M3PL insurance. In as far as the main burden of uninsured drivers falls upon the insurers and insured in the country of residence, the burden for rectification of the problem again seems to lie with the Member States themselves.

- (d) Recovery of Stolen Vehicles. If a stolen vehicle is successfully recovered then there will be some value (even if only scrap value) to set against what would otherwise be a total loss. In 2006, vehicles stolen totalled approximately 1.2 million; a significant proportion of these are not recovered. The International Convention for the Recovery of Stolen Vehicles (ICRV) encourages the mutual exchange of information regarding stolen, seized and “written-off” vehicles crime, on a non-profit basis. At present, only a minority of Member States are represented in the ICRV — Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Poland, Slovenia, Spain, Sweden and the UK. Given that exchange of information is critical to its success, the extension of its membership appears desirable. It is evident from Interpol’s summary of the procedures for recovering stolen vehicles that at present significant differences in policy and process exist.

Outlook

- 87 DG MARKT is currently conducting its Impact Assessment of the Solvency II proposals. Therefore, we do not comment in detail upon these here. However, the strong consensus from insurers that we spoke to was that the impact upon the non-life sector was likely to be very limited in effect although some companies would inevitably be affected.
- 88 The credit crunch and the associated economic downturn are likely to impact upon the insurance sector, and particularly the private lines business within it, in a number of important ways:
- Increased attrition of the customer base. Two forces are likely to be at work here: first, comprehensive motor insurance cover is optional, as is household insurance in nearly all countries. Since it therefore represents discretionary spending at some level, it is possible for some individuals to choose not to renew it (or else to

⁷ MARKT/2508/06 (March 2006).



reduce the cover to some extent). Second, a rational individual will look with additional rigour at ways and means of saving money — there is greater value in shopping around when money is tight.

- Second, fraud and claim inflation could become more prevalent. This is, so far, primarily a concern for the UK industry.
- The low interest rate environment may lead to an eventual reduction in the discount rates applied in calculating payments on long-term injuries in motor insurance. All else being equal, this will increase the claims ratio and reduce profitability. For as long as lending to the corporate sector remains constrained in many markets there will not be a matching saving in the cost of capital accessible by insurers.

89 In the longer term, there is a common concern in the insurance industry that climate change may significantly increase exposures to natural catastrophes with particular impact on claims under household insurance policies.



1 INTRODUCTION

- 1.1 This is the Final Report of the Retail Insurance Market Study. This work has been performed under contract ETD/2008/IM/H2/130.
- 1.2 The Study looks at various aspects of three markets: Third Party Liability Motor Insurance (M3PL), comprehensive motor insurance and home/household insurance. Our study looks across the whole of the EU27. In addition, it incorporates a comparison to the USA or to six individual USA States (the Selected USA States), namely Connecticut, Maine, New Jersey, New York, Pennsylvania and Vermont.

Structure of the Report

- 1.3 The structure of this report is as follows:
 - In Section 2, we discuss various aspects of the structure of the M3PL, comprehensive and home insurance markets. In particular we identify the number of operators in each market, by those supervised by the local regulator, and, separately, those acting under either Freedom of Establishment or Free Provision of Services. We also describe in this Section the concentration and relative competitiveness of each market and the extent of Mergers and Acquisitions activity (both domestic and cross-border). This is on a country by country basis for the EU27. In addition, a comparison to either the USA or else to the Selected USA States is made where appropriate.
 - Section 3 describes the scale of cross-border activity (separating Freedom of Establishment from Free Provision of Services) and identifies the obstacles and draws to such activity.
 - We discuss in Section 4 the basis of pricing products in both motor and home insurance. This is a crucial building block towards an understanding of the evolution of premiums and profitability in these areas.
 - Section 5 focuses upon the legislative context, providing an overview of the relevant legislation both within the EU and the USA.
 - Section 6 reviews the evolution of premiums and of profitability in the motor insurance sector.
 - Section 7 reviews the evolution of premiums and of profitability in the home insurance sector.
 - Finally, in Section 8 we set out the results of the mystery shopping exercise that we have conducted.



Appendices

1.4 There are a number of appendices to this study.

- Appendix 1 contains the technical detail supporting the econometric analysis that we have conducted as part of our work.
- Appendix 2 identifies the leading five firms in each market segment for each Member State within the EU27, as well as, for comparison purposes, the Selected USA States.
- Appendix 3 details the full content of the profiles used in mystery shopping for motor insurance (both M3PL and comprehensive).
- Appendix 4 details the full content of the profiles used in mystery shopping for home insurance (structural and/or contents insurance).



2 MARKET STRUCTURE

Introduction

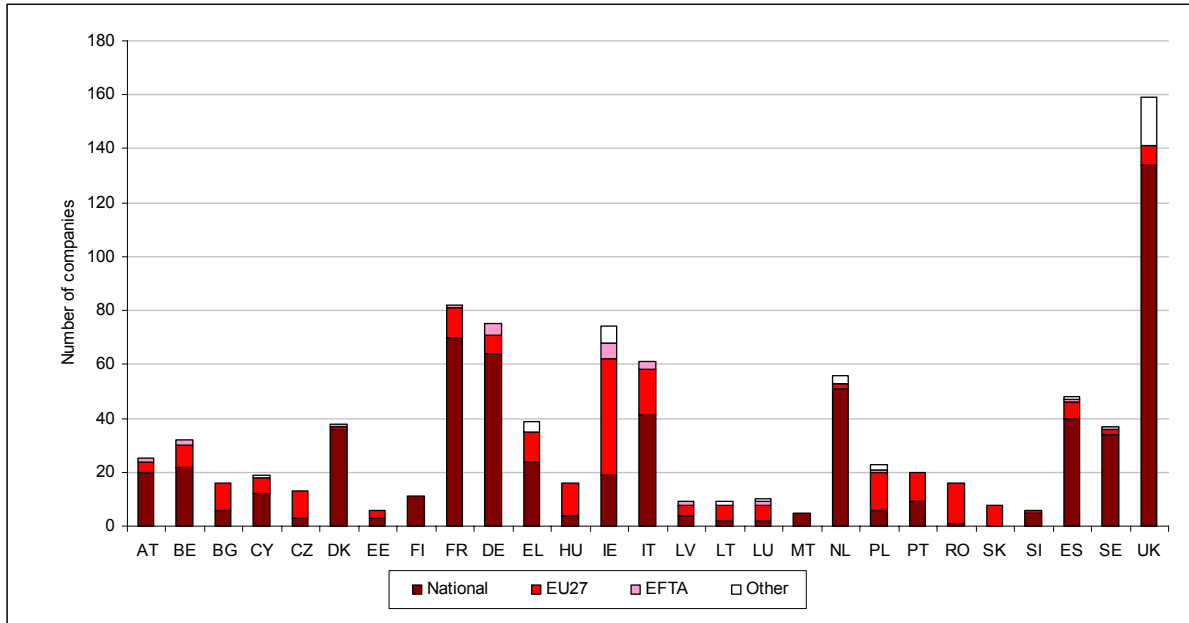
- 2.1 This section reviews the market structure in the motor third party liability (M3PL), motor comprehensive and home insurance sectors across the EU27. In addition to providing figures for the EU27 market, we also provide an international comparison with the USA.
- 2.2 The section is organised as follows:
- (a) The number of market operators. This sub-section deals with the number of operators in each Member State, distinguishing between domestic operators and those operators who are subsidiaries of a firm with its head office in another Member State, an EFTA state or elsewhere.
 - (b) The number of operators on a Freedom of Establishment (FOE) and Free Provision of Services (FPS) basis. In Section 3 of this report we discuss the *volume* of activity conducted through these channels.
 - (c) Analysis of M&A, including a separate treatment of cross-border activity.
 - (d) Market concentration analysis.

The Number of Market Operators

- 2.3 Figure 2.1, Figure 2.2 and Figure 2.3 provide, for each product segment, information on the total number of companies operating in each Member State, as well as a breakdown of the geographical origin of the parent in the case of subsidiaries (i.e. whether the ultimate parent is from another Member State, from an EFTA country or from another country).

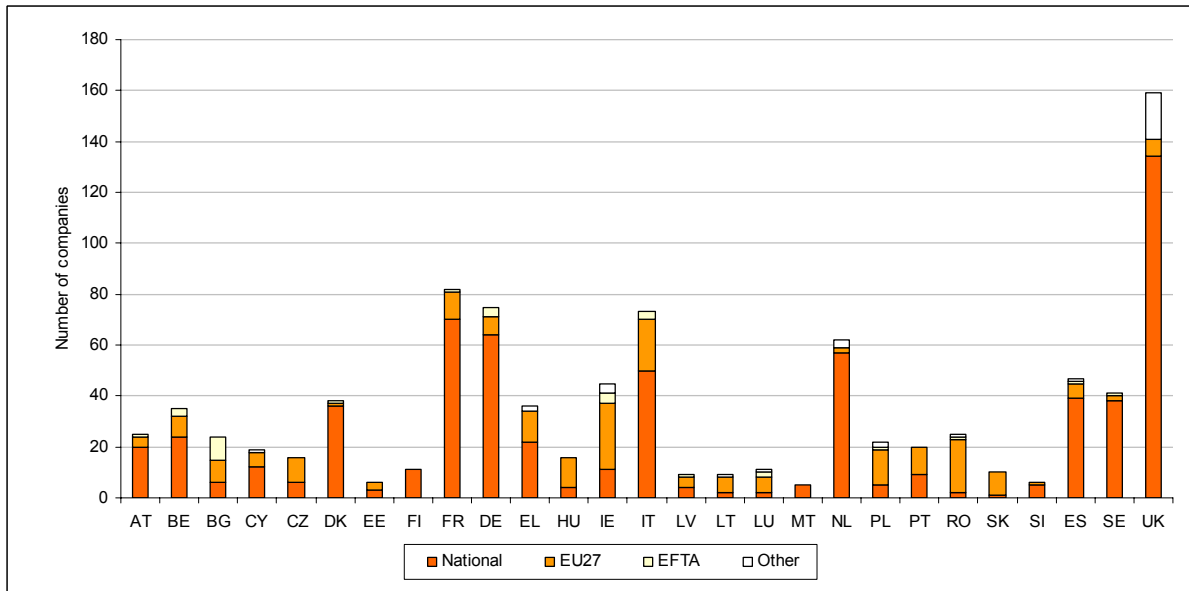


Figure 2.1: Operators in M3PL, 2008



Source: National regulators except where stated here. The relevant data were derived by Europe Economics from the trade associations of Greece, Ireland, and Luxembourg. For Austria, France, Germany, and the UK the results are based upon interrogating the Bureau van Dijk ISIS database of insurance companies. This database was also used to identify the headquarter locations of the ultimate parent undertakings where this was not separately identified by our other sources.

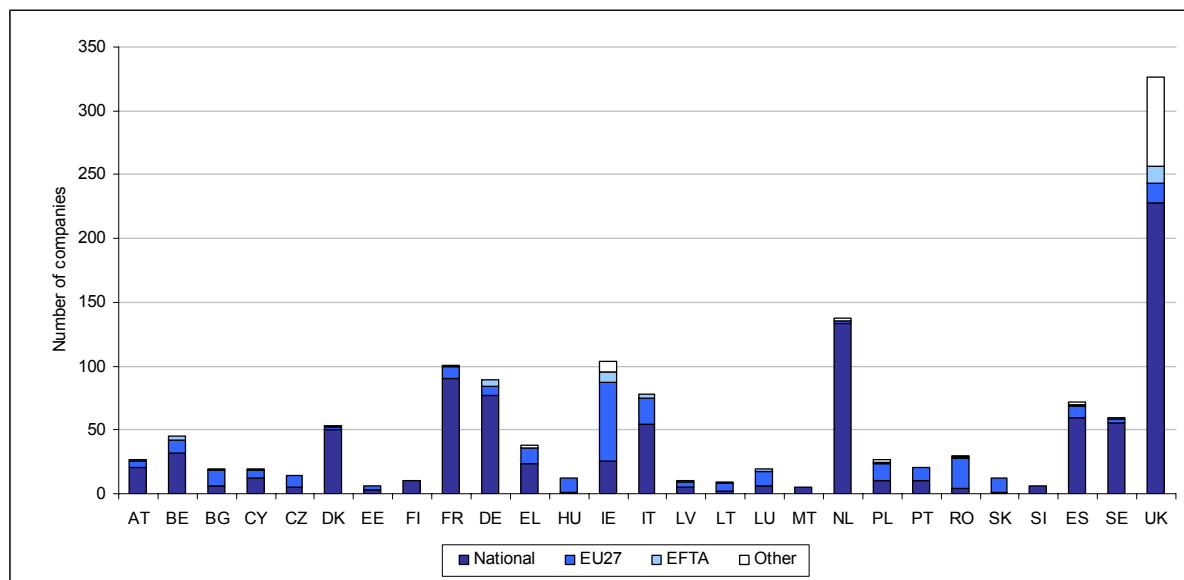
Figure 2.2: Operators in Motor Comprehensive, 2008



Source: National regulators except where stated here. The relevant data were derived by Europe Economics from the trade associations of Greece, Ireland, and Luxembourg. For Austria, France, Germany, and the UK the results are based upon interrogating the Bureau van Dijk ISIS database of insurance companies. This database was also used to identify the headquarter locations of the ultimate parent undertakings where this was not separately identified by our other sources.



Figure 2.3: Operators in Property, 2008



Source: National regulators except where stated here. The relevant data were derived by Europe Economics from the trade associations of Greece, Ireland, and Luxembourg. For Austria, France, Germany, and the UK the results are based upon interrogating the Bureau van Dijk ISIS database of insurance companies. This database was also used to identify the headquarter locations of the ultimate parent undertakings where this was not separately identified by our other sources.

- 2.4 In each Member State the number (and identity) of the operators across the three product markets tends to be broadly similar. In other words, whilst specialist motor and property insurers exist, most of the operators are generalist, multi-lines insurers. However, in Luxembourg, the Netherlands and the UK our data indicate that the number of property insurers exceeds those providing motor insurance by a factor of about 2 to 1. Indeed, in most markets there are more property insurers than motor insurers. On the other hand, in Finland, Greece and Hungary motor insurers are in greater preponderance.
- 2.5 The Member States of Central and Eastern Europe (CEE Member States)⁸ have on average fewer firms active in the market and the largest share of non-domestic operators.
- 2.6 For the vast majority of Member States there is a clear link between the number of firms operating in the domestic market and the concentration ratio, i.e. a larger number of insurance firms corresponds typically to a lower concentration ratio (see the end of this chapter). A key exception is the UK market where, despite a high number of operators, the concentration is still significant. This may imply that there are a number of small, specialist operators in the UK, operating in niche parts of the market.

⁸ For the avoidance of doubt, we include here: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.



Operators on a Cross-border Basis

- 2.7 We approached regulators in the EU27 and EFTA to supply data with regards to premiums written by domestic insurance companies in another Member State through FOE and FPS. In accordance with Article 44 of the Third Non-life Insurance Directive (92/49/EEC), EU operators are required to communicate to the relevant supervisory authority this type of information, broken down by risk classification code.
- 2.8 A number of regulators highlighted to us that, in practice, gathering this dataset from their supervised entities (and, indeed, also from other supervisors under the reciprocal arrangements of Article 44) was rarely straight-forward. Nevertheless, almost all EU27 regulators were able to provide us with the information required. The only countries from which we have not been able to gather figures for outgoing cross-border premiums analysed across the individual countries of destination are: Austria, Cyprus, and Greece. However, in each of these cases we have obtained data on the total value of outgoing business. The availability of information on the number of active firms under FOE and/or FPS broadly corresponded with the availability of information for premiums (an important exception is that we were only able to access information on the number of French firms active under Freedom of Establishment).
- 2.9 A general problem with the data available on cross-border premiums is that it does not allow a distinction between premiums generated by the sale of personal insurance and premiums generated by the sale of commercial insurance. This issue is unlikely to create a severe distortion for the motor sector because the characteristics of the good insured are the same irrespective of the purpose for which the good is used (i.e. private or commercial).
- 2.10 However, the same is less true for the property segment as the data include premiums written to insure commercial properties as well as homes. Our dialogue with supervisors strongly indicated that the vast majority of the activity in the property category was believed to relate exclusively (or near exclusively) to commercial lines of insurance.
- 2.11 We have used the dataset on outgoing cross-border activity in two ways. First, the dataset has been matched with a set of potential explanatory variables in order to produce an econometrics-founded estimate of the main determinant of cross-border activity — this is incorporated into the subsequent section. Second, we have used the mirror image of outgoing cross-border premiums and the outgoing number of firms active under either FOE or FPS to identify, for each Member State, the number of foreign firms active through FOE and FPS on an incoming basis, and the corresponding incoming



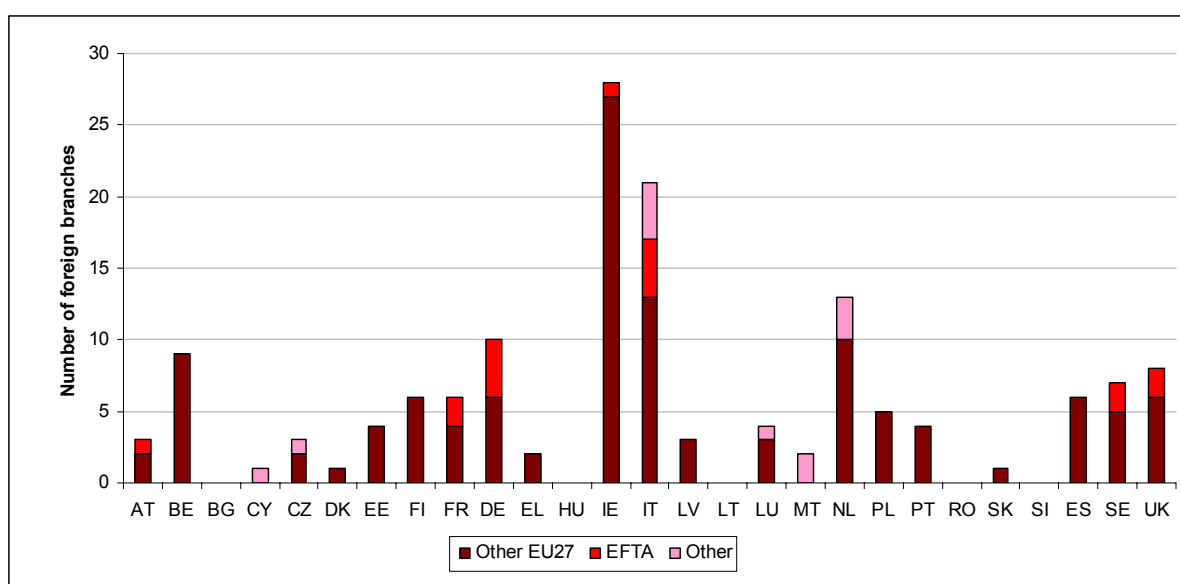
cross-border premiums. This enabled us to identify a lower bound for the number of foreign firms operating through FOE and FPS in each Member State.⁹

2.12 This lower bound has been used to identify the number of FPS operators in each Member States. In most Member States, we obtained data on the number of branches active in that Member State from the local insurance supervisor. However, for Austria, France, Germany, Greece, Spain and the UK the home supervisor did not identify the number of active branches, so we used the lower bound estimate in the same way as we estimated the number of firms active under FPS.¹⁰

Freedom of Establishment

2.13 Figure 2.4, Figure 2.5 and Figure 2.6 provide, for each product segment, information on the total number of branches operating in each Member State, as well as a breakdown of the geographical location of the host supervisor (i.e. from another Member State, from an EFTA country or from another country).

Figure 2.4: Operators under FOE in M3PL, 2008



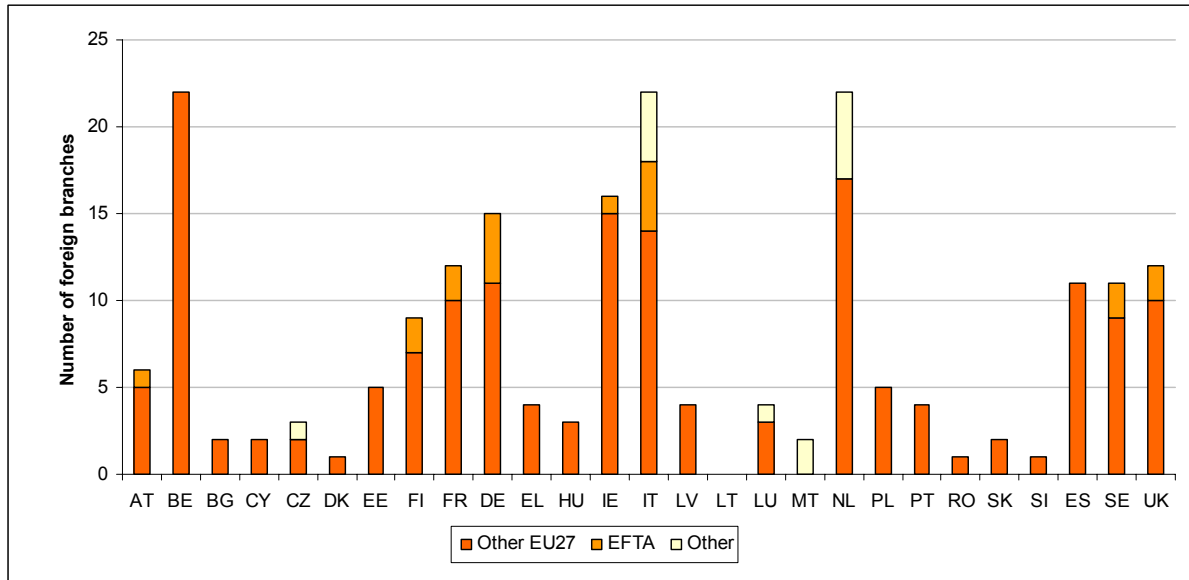
Sources: National regulators and EE subsequent analysis.

⁹ It is a lower bound for the reason is that it does not account for Austrian, Cypriot, Greek, and French operators. Host supervisors will be aware of how many companies are registered to sell insurance in a particular segment under FPS, but will not automatically be aware of how many of these are in fact active in any given period, or, indeed, at all.

¹⁰ In this case, for the reason already identified, the estimate of the number of branches is based upon the activity of firms from all Member States bar Austria, Cyprus and Greece. It also reflects information received from the insurance supervisors of Iceland, Switzerland and Liechtenstein.

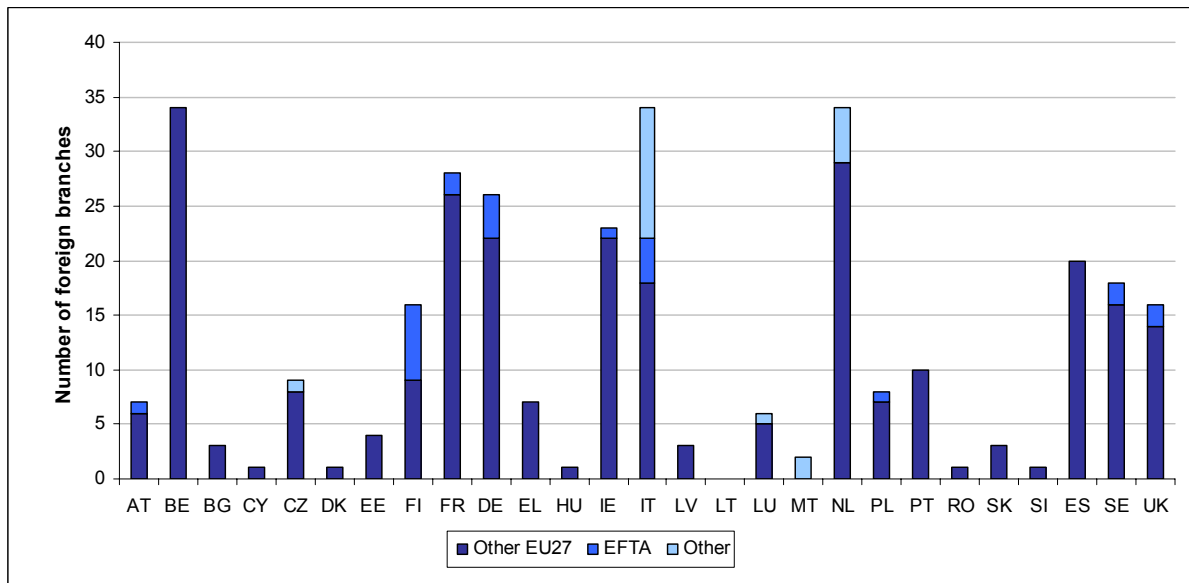


Figure 2.5: Operators under FOE in Motor Comprehensive, 2008



Sources: National regulators and EE subsequent analysis.

Figure 2.6: Operators under FOE in Property, 2008



Sources: National regulators and EE subsequent analysis.

2.14 There are notably fewer operators under FOE in a number of the M3PL markets (e.g. Belgium, Netherlands). That said, Belgium, Germany, Ireland, Italy and the Netherlands are consistently the countries with the largest number of foreign branches located in them for all of the product segments. In contrast, the presence of firms operating under FOE in the CEE Member States is typically very limited, with the number of branches nearly always below five (property in the Czech Republic and Poland being exceptions) and even zero (we have no positive information of a firm active under Freedom of



Establishment in Lithuania, for example, in any of the segments. However, it is possible that either (i) one or more Austrian, Cypriot or Greek firms are active there, or (b) an active branch from another Member State has failed to inform its home supervisor of its operations).

- 2.15 There is a clear correlation between the presence of branches across the three market segments (i.e. countries with a large number of branches in one market segment tend to experience a large presence of FOE activity in the other segments also). This may simply reflect the same firm, having invested in the branch, being active in more than product category — we have already noted that such a generalist approach tends to hold domestically and it is reasonable to contend that it would also largely hold for non-domestic operations. Moreover, those Member States with the largest presence of foreign branches are also those more likely to have branches of non-EU operators. This implies some commonality of appeal — we explore this further in Section 3.
- 2.16 The absolute number of firms operating through FOE in the property sector is larger than in the motor sector. This is driven by the presence of operators that offer commercial property insurance.
- 2.17 We note as an aside that our data indicate that in Belgium, Estonia, the Netherlands and Sweden there are more branches operated by EU27-located firms than there are EU27-owned subsidiaries. The same applies to Germany and Spain in respect of the motor comprehensive and property markets. In all other countries and in all other product markets, subsidiaries outnumber FOE operators.
- 2.18 A further dimension to branching is the headquarter locations of the firms that have set up branches in other national markets. UK firms appear to be crucial players here — we estimate that of the branches set up in the EU27 that are selling comprehensive motor insurance fully 29 per cent are run by UK firms (with another 16 per cent operated by French firms and 11 per cent by Belgian ones). This increases to 40 per cent in property insurance. By comparison, only about 8 per cent of the cross-border acquisitions undertaken by EU27 firms in the period 1999–2008 were carried out by UK firms.¹¹
- 2.19 The implication is that UK firms in particular have a relative preference for branching. Focusing solely on the views expressed in stakeholder interviews and survey responses forming part of this study by UK firms on their decision-making on setting up (or acquiring) a subsidiary and setting up a branch, the following priorities are apparent:
- First — at least in those jurisdictions where a strong preference exists — will be the nature of local consumer preferences (e.g. there may be either a strong

¹¹ Of course, we recognise the potential risk in the comparison of a stock (of branches) with a flow (the amount of M&A). However, the flow is over a period of ten years, so this appears a reasonable simplification. The analysis of M&A is presented later in this section.



consumer preference for the “badging” of products by the local regulator, or, conceivably at least, by the UK FSA).

- Second, the relative cost of the two options.
- The nature of the supervisory regime in the host market compared to the UK FSA.

2.20 Similarly, a UK insurer indicated in an interview that a permanent presence is preferred to operation on a FPS basis because it is

more cost-effective overall to understand local risk factors and organise local claims handling from within the country of sale than across borders.

2.21 Equally, ensuring compliance with the correct level of insurance premium taxes (both fiscal and parafiscal) and with legal requirements is viewed as being more cost effectively dealt with on the ground. As an aside, it was highlighted in the same interview that

insurance premium tax (or its equivalent) has very little underpinning in EU legislation [in order to facilitate] cross-border process[es].¹²

Free Provision of Services

2.22 While regulatory bodies are typically aware of the number of foreign firms that are *registered* to operate through FPS in their domestic markets, they have no way to distinguish those that are in fact active (i.e. those that sell at least one insurance policy) from those that are not active. This aspect is in principle problematic because obtaining a licence to operate through FPS is typically of low marginal cost and therefore operators may do so irrespective of whether they are in fact active through this channel.

2.23 We have overcome this problem by looking at the mirror image of the data on the number of firms active on an outgoing basis to provide the number of domestic firms to which these premiums can be attributed. The outcome of this approach confirms that using the number of firms registered to operate through FPS as proxy for numbers that are active through FPS would lead to a severe upward bias. In fact, we have found that the number of firms registered to operate through FPS is systematically and significantly higher than our estimated lower bound.¹³ Whilst it is conceivable that there is some systematic under-reporting involved (i.e. a firm is active in a given country under one or both

¹² Indeed, Member States are forbidden to require the appointment of a fiscal representative by ECJ case law.

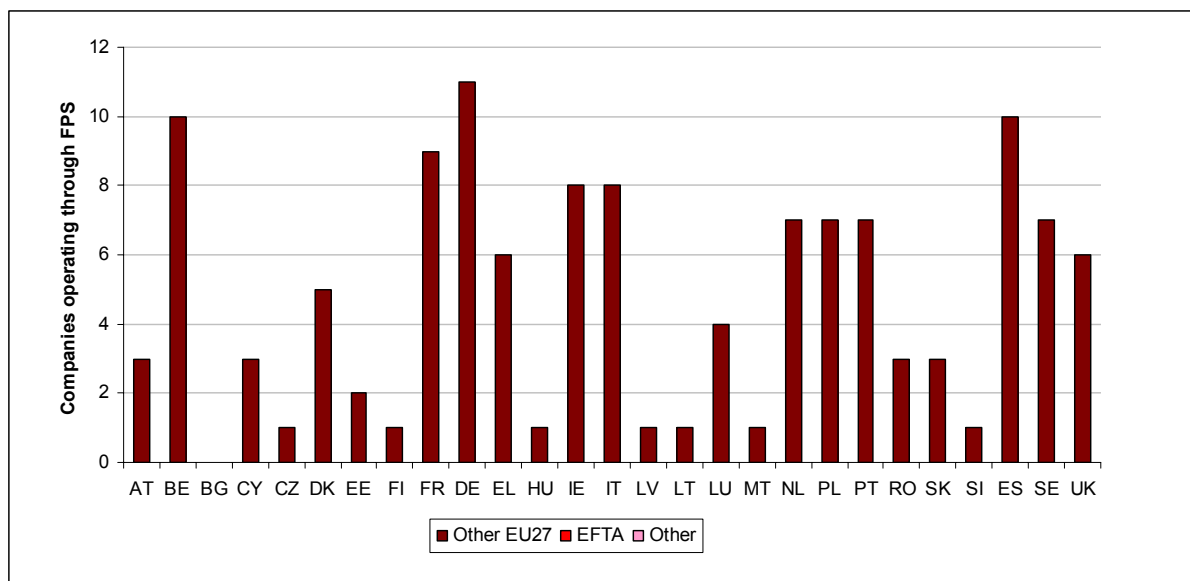
¹³ In order to provide a sense of the magnitude, the number of firms registered to operate through FPS in Ireland in the M3PL sector is 283, while — according to our estimate — only 8 firms are in fact active. It strikes us as highly unlikely that Austrian, Cypriot, French and Greek insurers account for the full difference — indeed, our data indicates that the national operators in these countries in the M3PL segment do not exceed 126 firms combined. Similarly, there are 100 firms entitled to operate under FPS in the M3PL sector in Italy, but our estimate suggests that, of these, only 8 are active. Again, in the Netherlands, information from the Dutch supervisor indicated that 210 firms were registered to sell comprehensive motor insurance in the Netherlands — our data indicates that 14 only are active. We have also had access to information received from the insurance supervisors of Iceland, Norway and Liechtenstein.



freedoms but lacks the appropriate internal processes to ensure that it informs the national supervisory authority of this), this appears unlikely to be the main driver, given the scale of the differences that we have found. Furthermore, the correct payment of insurance premium (and related) taxes or payment to guarantee funds (in respect of M3PL) would motivate both internal and external monitoring of such activity and the reporting thereof.

2.24 Figure 2.7, Figure 2.8 and Figure 2.9 provide information for each product segment on the (minimum) number of foreign operators active in each Member State through FPS.

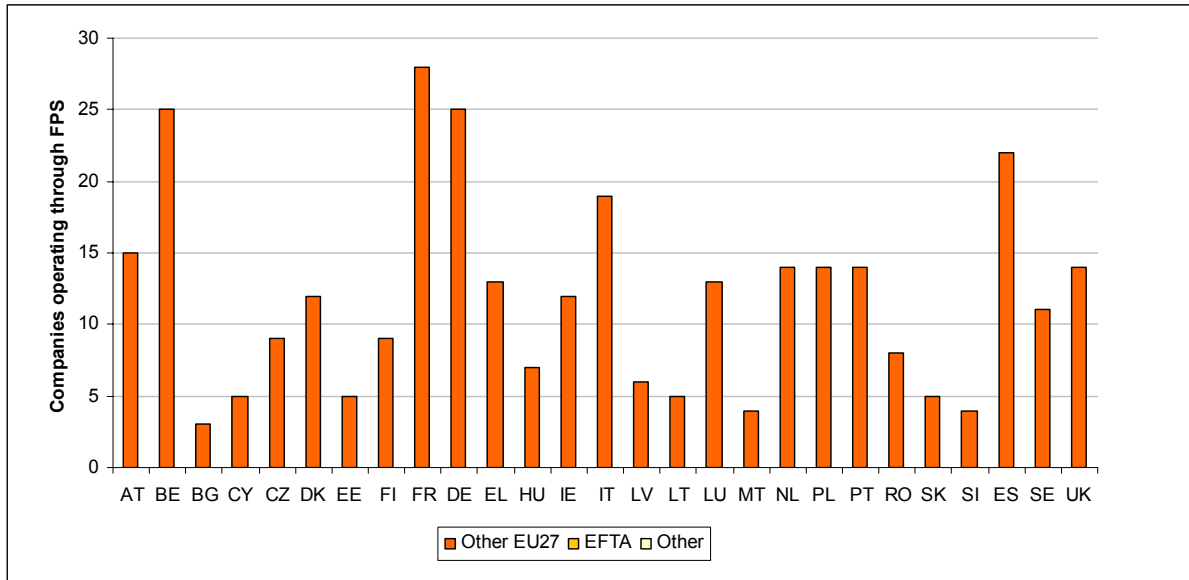
Figure 2.7: Operators through FPS in M3PL, 2008



Sources: National regulators and EE subsequent analysis.

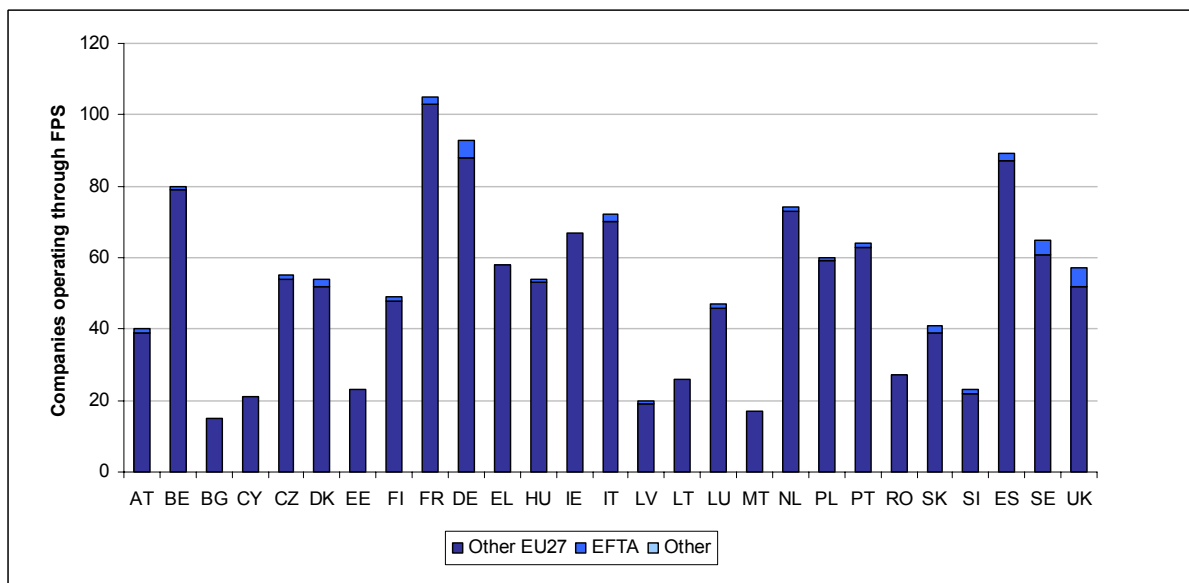


Figure 2.8: Operators through FPS in Motor Comprehensive, 2008



Sources: National regulators and EE subsequent analysis.

Figure 2.9: Operators through FPS in Property, 2008



Sources: National regulators and EE subsequent analysis.

2.25 Similar to our analysis of FOE, the presence of cross-border operators through FPS in the CEE Member States is typically limited, albeit to a lesser degree than with branching. Also, there is a clear correlation between the presence of operators under FPS across the three market segments (i.e. countries with a high FPS activity in one market segment tend to also experience a high activity in the other segments).



- 2.26 The ranking of Member States in terms of the number of foreign firms operating through FPS is less stable than FOE. However, Belgium, France, Germany, Italy, Spain and the Netherlands generally rank highly in all product categories.
- 2.27 Finally, the number of firms operating through FPS in the property sector is larger than in either motor sector. Again, this result is mainly driven by the mixing of commercial and domestic property insurance operators in the data.

The relative importance of operators under FOE and FPS

- 2.28 Our data indicate that in the provision of M3PL insurance the number of national operators (including subsidiaries with non-national parents) exceeds the combined total of FOE and FPS operators active in that segment. This applies to all Member States (in Estonia, there is equivalence).
- 2.29 This relation begins to break down for the comprehensive motor category. In Belgium, Estonia, Finland, Latvia, Luxembourg and Malta there are more operators on either a FOE or FPS basis than those supervised by the respective regulators.
- 2.30 In the property segment, it is more generally true that the number of operators on a FOE or FPS basis exceed local ones. Although — as we will discuss in the next section — the volume of activity is not typically great. This is suggestive of greater internationalisation in this product line. Again, we believe that this is essentially a reflection of the unavoidable mixing in of commercial lines with personal ones.

Mergers and Acquisitions

- 2.31 We have reviewed mergers and acquisitions (M&A) activity in the EU27 Member States and in the USA, with particular reference to cross-border activity. The timeframe for this analysis is the period from 1 January 1999 up to 31 December 2008. Before turning to our analysis, we comment briefly upon the approach that we have adopted in identifying M&A activity.
- 2.32 We used Bureau van Dijk's proprietary Zephyr database to identify completed transactions in the period. The Zephyr product is recognised as having excellent coverage of private company M&A, as well as good coverage of public company transactions.

Definition of M&A

- 2.33 We have deliberately adopted a broad definition, taking the acquisition of a 30 per cent equity stake in a "target" as sufficient to signify control for the "acquirer". Management



Buy-outs (and Buy-ins) and mergers have also been incorporated into our definition of M&A.¹⁴

- 2.34 We have also included Joint Ventures in our analysis as, typically, these represent the establishment of a new business. A Joint Venture may be perceived as a desirable form of market entry (particularly across market segments or national borders), and so is of interest here.
- 2.35 Where a target company has had operations in a number of countries, it has been counted once only — in the jurisdiction where its head office is located. Similarly, where there is an identifiable chain of investments over time, building to a change in control, we have treated this chain as a single transaction, counted as occurring in the year that the equity stake reached 30 per cent.

Identification of different revenue streams

- 2.36 Many non-life insurers operate across a number of policy areas (for instance, an insurer offering M3PL cover is likely to offer comprehensive motor cover — or the local equivalent — as well).
- 2.37 Having first used Zephyr to identify insurance sector M&A, we have used a number of sources to identify the product areas in which the target companies were active at the time of acquisition. These included:
- Accessing the deal summary contained within Zephyr.
 - Cross-referencing the target companies with another Bureau van Dijk database, Isis. This is focused solely upon the insurance sector.
 - Cross-referencing the target companies with other research that we have conducted, such as listing national operators in each policy area.
 - Reviewing any contemporaneous commentary on the transaction available via the internet.
 - Reviewing any information on company history on the target company's website (provided that it was still in independent existence) or on the acquirer's website. Clearly, this implicitly assumes that business activity has remained constant over time.
- 2.38 We have followed Zephyr's categorisation of the acquirer's location. This means that the analysis is based upon the location of the legal entity completing a particular deal (e.g. if a

¹⁴ The Zephyr database also lists share buy-backs, Initial Public Offerings and the acquisitions of equity stakes below our 30 per cent threshold. These have been eliminated from our M&A analysis.



local subsidiary of a non-domestic firm buys a rival it would not qualify as cross-border M&A). This is desirable because it separates out those transactions that consolidate the market from those that leave the number of operators unchanged. Indeed, it may be that in the latter case the level of competition may be increased (by the new owner introducing new techniques or additional capital in order to improve the quality of the asset which it has acquired).

2.39 We have tabulated the M&A activity identified as follows:

- By year (also showing the total for the entire period) looking at the EU27 in aggregate.
- Within each EU27 Member State and the USA by the location of the acquirer, distinguishing between acquirers based in the EU27, EFTA and anywhere else.

2.40 In each table we show the total number of deals and the number of cross-border deals, separately identifying where the acquirer is from another EU27 Member State, EFTA or Rest of the World (ROW).

M3PL

2.41 Table 2.1 sets out the total M&A activity by year of deal completion.

Table 2.1: Annual M&A Activity by Year, 1999–2008 (M3PL)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total EU27 deals	56	39	42	38	33	36	30	23	26	21	344
<i>Of which</i>											
cross-border (other EU27)	18	14	11	6	6	7	12	4	10	11	99
cross-border (EFTA)	4	-	2	2	-	-	-	3	2	-	13
cross-border (ROW)	3	3	2	-	3	3	1	3	1	-	19
	25	17	15	8	9	10	13	10	13	11	131
Total USA deals	3	11	13	6	9	1	8	5	10	10	76
<i>Of which</i>											
cross-border (EU27)	-	-	1	-	-	-	-	-	2	1	4
cross-border (EFTA)	1	-	1	-	-	-	-	-	-	-	2
cross-border (ROW)	-	2	1	-	-	-	-	1	1	1	6
	1	2	3	-	-	-	-	1	3	2	12

Source: Bureau van Dijk ISIS and Zephyr databases, Europe Economics

2.42 There is a notable decline in the volume (i.e. absolute number) of overall transactions from the early part of the period under review (particularly 1999 and 2000) by comparison to the last few years. It is also notable that the level of activity in the USA is markedly lower than in the EU.

2.43 The number of cross-border transactions is highly significant, with just under 30 per cent of the total number of transactions in the EU27 having a cross-border dimension involving a company headquartered in another EU27 Member State (cross-border M&A in the EU is about three times more likely to involve an acquirer headquartered in another Member



State than elsewhere). These follow a broadly similar dynamic to overall activity (i.e. most of the transactions are clumped around 1999 and 2000 — although outside the period which we review, 1998 was also an active year in this regard).

- 2.44 Table 2.2 sets out the total activity, and the cross-border element within it, for each country (we have aggregated the transactions over the whole period, 1999–2008).

Table 2.2: Total M&A Activity by Country (M3PL)

	AT	BE	BG	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK	USA	
Total deals	5	13	2	4	8	7	4	6	35	36	15	5	3	55	5	8	-	1	14	12	7	21	5	1	26	7	39	76	
<i>Of which</i>																													
cross-border (EU27)	1	1	2	1	4	1	1	2	5	6	7	4	3	9	1	5	-	1	3	9	3	14	4	-	5	4	3	4	
cross-border (EFTA)	-	-	-	-	-	2	-	-	2	3	-	-	-	1	1	-	-	-	-	-	-	-	1	-	-	1	1	1	2
cross-border (ROW)	-	-	-	-	-	-	1	-	2	1	-	-	-	4	-	2	-	-	-	1	-	-	-	-	-	3	-	5	6
	1	1	2	1	4	3	2	2	9	10	7	4	3	14	2	7	-	1	3	10	3	15	4	-	9	5	9	22	

Source: Bureau van Dijk ISIS and Zephyr databases, Europe Economics

- 2.45 The UK, France, Germany and Italy have seen the most transactions over the whole period (about 48 per cent of the total M&A activity in the EU27 occurred in these four countries). These countries appear to have seen a significant degree of domestic consolidation with about one in four transactions having a cross-border component.
- 2.46 However, if we index total M&A activity (as measured by the number of deals) by the data that we have on the total number of operators, then a different picture emerges. Indexing in this way, it is the Member States of Central and Eastern Europe that have experienced the most relative activity between 1999 and 2008, with the level of activity in Estonia, Lithuania and Romania being notably prominent. In fact, in Lithuania for example, the number of M&A transactions exceeds the current number of market operators — this indicates a considerable degree of consolidation, albeit with some churning whereby the same business is bought and sold more than once. In these countries, the key driver of activity has generally been insurers based elsewhere in the EU27. The least M&A activity in the period reviewed (relative to the current stock of operators) has been in Bulgaria, Denmark, Ireland, Luxembourg and Slovenia.
- 2.47 The highest levels of domestic (i.e. consolidating) M&A activity, relative to the number of operators currently extant, have been seen in Italy, Finland and Romania.

Motor Comprehensive

- 2.48 Table 2.3 sets out the total M&A activity in motor comprehensive by year of deal completion.

**Table 2.3: Annual M&A Activity by Year, 1999–2008 (Motor Comprehensive)**

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total EU27 deals	56	39	42	37	32	36	30	23	26	22	343
<i>Of which</i>											
cross-border (other EU27)	18	14	11	6	5	7	12	4	10	12	99
cross-border (EFTA)	4	-	2	1	-	-	-	3	2	-	12
cross-border (ROW)	3	3	2	-	3	3	1	3	1	-	19
	25	17	15	7	8	10	13	10	13	12	130
Total USA deals	3	11	13	6	9	1	8	5	9	10	75
<i>Of which</i>											
cross-border (EU27)	-	-	1	-	-	-	-	-	2	1	4
cross-border (EFTA)	1	-	1	-	-	-	-	-	-	-	2
cross-border (ROW)	-	2	1	-	-	-	-	1	1	1	6
	1	2	3	-	-	-	-	1	3	2	12

Source: Bureau van Dijk ISIS and Zephyr databases, Europe Economics

2.49 In most cases, where an insurer offers M3PL cover, a comprehensive insurance will be offered also — and vice versa. This means that the M&A activity in the M3PL and the motor comprehensive segments are largely identical (however, Denmark, for instance, is an exception to this), and our comments about M3PL hold here as well.

2.50 Table 2.4 sets out the total activity, and the cross-border element within it, for each country for the whole period, 1999–2008. This shows a similar picture to that described above for M3PL.

Table 2.4: Total M&A Activity by Country (Motor Comprehensive)

	AT	BE	BG	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK	USA	
Total deals	5	14	2	4	8	6	4	6	35	35	15	5	3	55	5	8	-	1	14	12	7	21	5	1	26	7	39	75	
<i>Of which</i>																													
cross-border (EU27)	1	2	2	1	4	1	1	2	5	5	7	4	3	9	1	5	-	1	3	9	3	14	4	-	5	4	3	4	
cross-border (EFTA)	-	-	-	-	-	1	-	-	2	3	-	-	-	1	1	-	-	-	-	-	-	1	-	-	-	1	1	2	
cross-border (ROW)	-	-	-	-	-	1	-	2	1	-	-	-	-	4	-	2	-	-	-	1	-	-	-	-	-	3	-	6	
	1	2	2	1	4	2	2	2	9	9	7	4	3	14	2	7	-	1	3	10	3	15	4	-	9	5	9	22	

Source: Bureau van Dijk ISIS and Zephyr databases, Europe Economics

Home

2.51 Table 2.5 sets out the total M&A activity in the home insurance market by year of deal completion.

**Table 2.5: Annual M&A Activity by Year, 1999–2008 (Home)**

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total EU27 deals	53	38	41	36	37	34	30	21	26	23	339
<i>Of which</i>											
cross-border (other EU27)	18	14	13	6	6	7	10	3	10	11	98
cross-border (EFTA)	3	-	2	2	-	-	-	3	2	-	12
cross-border (ROW)	3	3	2	1	4	3	2	2	2	-	22
	24	17	17	9	10	10	12	8	14	11	132
Total USA deals	2	10	9	4	-	2	3	4	8	11	53
<i>Of which</i>											
cross-border (EU27)	-	-	1	-	-	1	-	-	2	1	5
cross-border (EFTA)	1	-	1	-	-	-	-	-	-	-	2
cross-border (ROW)	-	2	-	-	-	-	-	1	1	1	5
	1	2	2	-	-	1	-	1	3	2	12

Source: Bureau van Dijk ISIS and Zephyr databases, Europe Economics

2.52 The level of overall activity in this segment has tended to be slightly lower in terms of the number of operators than in the motor segments. Indexing by the number of market operators serves to emphasise that there has been less M&A activity here relative to the motor insurance. In other words, there has been less consolidation than in motor, although the relative importance of cross-border activity within this is similar. The importance of EFTA is driven, naturally, by Swiss non-life companies generally and also by Norwegian operators who have been active in Scandinavia and the Baltic states.

2.53 Table 2.6 sets out the total activity, and the cross-border element within it, for each country over the whole period, 1999–2008.

Table 2.6: Total M&A Activity by Country (Home)

	AT	BE	BG	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK	USA
Total deals	4	14	2	4	7	7	4	5	30	32	15	5	2	57	5	8	-	1	14	14	6	20	7	1	25	6	44	53
<i>Of which</i>																												
cross-border (EU27)	1	1	2	1	4	1	1	2	4	5	7	5	2	10	1	5	-	1	3	10	3	13	4	-	4	4	4	5
cross-border (EFTA)	-	-	-	-	-	2	-	2	3	-	-	-	1	1	-	-	-	-	-	-	-	1	-	-	-	1	1	2
cross-border (ROW)	-	-	-	-	-	1	-	3	1	-	-	-	3	-	2	-	-	-	1	-	-	1	-	1	-	4	6	5
	1	1	2	1	4	3	2	2	9	9	7	5	2	14	2	7	-	1	3	11	3	14	5	-	8	5	11	21

Source: Bureau van Dijk ISIS and Zephyr databases, Europe Economics

2.54 Again, as with motor, the highest levels of domestic (i.e. consolidating) M&A activity, relative to the number of operators currently extant, have been seen in Italy, Estonia and Latvia.

Destination and Sources of Cross-border M&A

2.55 In this section, we focus more closely on cross-border M&A activity. We also introduce the aggregate values of the transactions recorded on Zephyr. As a cautionary note, transaction values are not always reported in private company transactions and whilst Bureau van Dijk strives to uncover this information it is not always successful. On the other hand, M&A with unreported valuations tend to be smaller than those that are

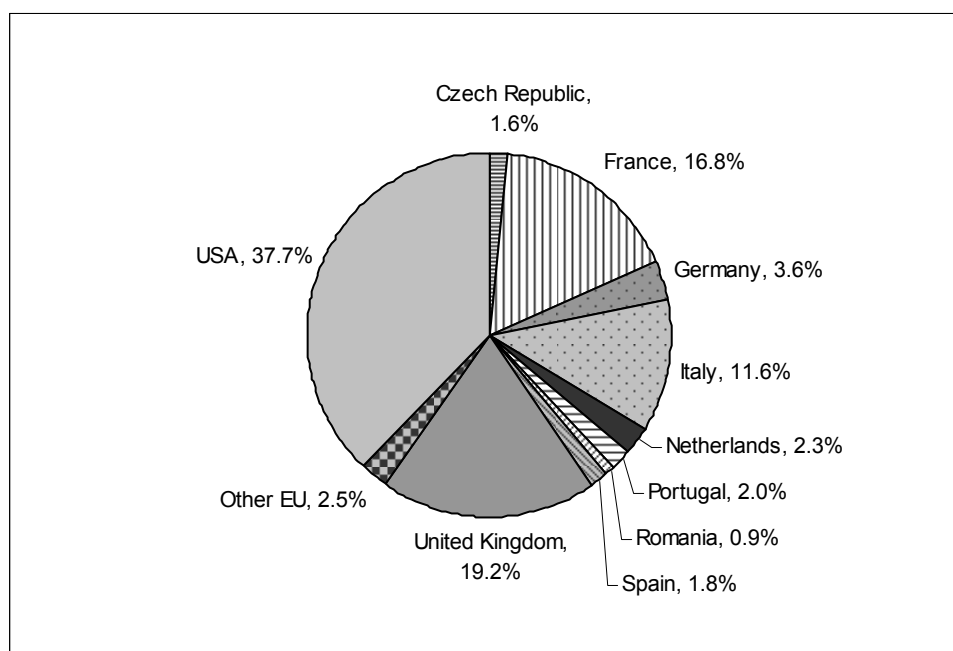


reported — we do not therefore expect the overall picture to be unduly impacted by this. Another factor is that where we have identified an insurer as being active in private motor and property insurance, it does not follow that these are its exclusive or even main activities. The transaction values will reflect the value of the whole firm, not simply its relevant elements — there is insufficient data available to reliably and consistently adjust for this. Therefore, the following should be seen as illustrative rather than definitive in terms of its analysis of where funds have come from and where they have flowed too.

Analysis by destination

2.56 Prior to turning to cross-border M&A, we set out in Figure 2.10 the overall shares of different countries as a destination for all M&A activity (i.e. both domestic and cross-border).

Figure 2.10: Total M&A 1999–2008, by Destination (by proportion of total deal value)



Source: Bureau van Dijk Zephyr and Isis databases; Europe Economics analysis

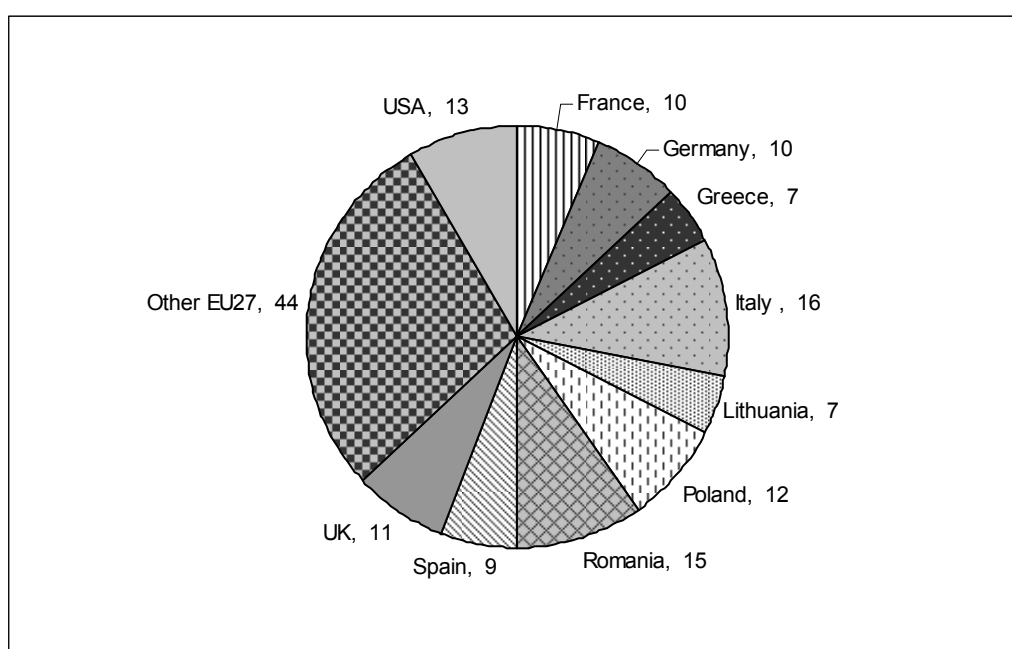
2.57 It is unsurprising to note that the overall value of reported M&A transactions is dominated by transactions located in the larger economies. However, it is equally clear that some countries — in particular, Germany — are significantly under-represented. This may simply reflect the fact that the German businesses acquired are less well represented in the underlying data (say, because private company deals are larger than is the norm elsewhere and so deal values are less well reported, or because this was a quiet decade, or some omission in the Bureau van Dijk data). On the other hand, looking at the private motor insurance market in Germany for example, the second largest firm has just over a five per cent market share behind the largest (Allianz) which has 18 per cent. The size of the second largest player in all other markets exceeds 10 per cent, at least. The



implication is that Germany has not seen the degree of consolidation of some other countries (at least in terms of the larger firms).

2.58 Figure 2.11 and Figure 2.12 show the number and value of all of the cross-border M&A in the EU27 and the USA in our dataset, analysed by the location of the target company (i.e. the headquarters of the acquired firm). Since the majority of deals have involved insurers covering both motor product lines and also home insurance, the total number of transactions exceeds that reported in any individual segment.

Figure 2.11: Total Cross-border M&A 1999–2008, by Destination (overall cross-border deal numbers, total = 154)

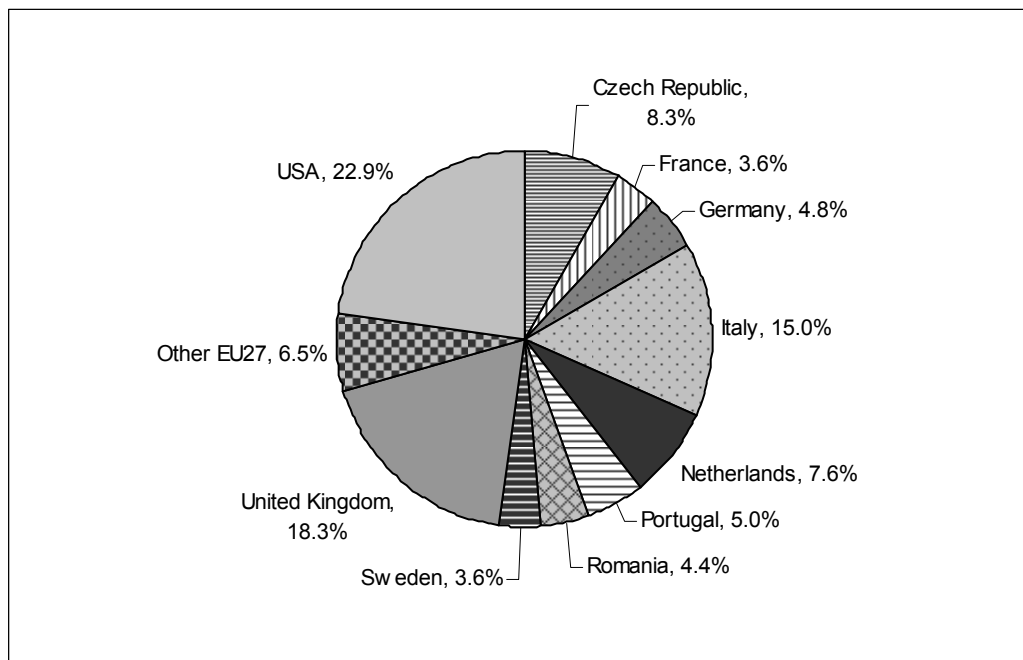


Source: Bureau van Dijk Zephyr and Isis databases; Europe Economics

2.59 All markets — except for Slovenia and Luxembourg — have seen at least one cross-border transaction. However, looking at just those cross-border transactions that have occurred in the EU27, fully 38 per cent have occurred in CEE Member States. This is significantly higher than the share of market operators based in those countries (which is just over ten per cent in home and about 15 per cent in motor insurance).



Figure 2.12: Total Cross-border M&A by Destination, 1999–2008 (by proportion of overall cross-border deal value)



Source: Bureau van Dijk Zephyr and Isis databases; Europe Economics

2.60 The implication of these charts is that the UK, Italy, Sweden and the Netherlands have seen more developed (and hence more valuable) operators acquired by foreign operators than their peers.

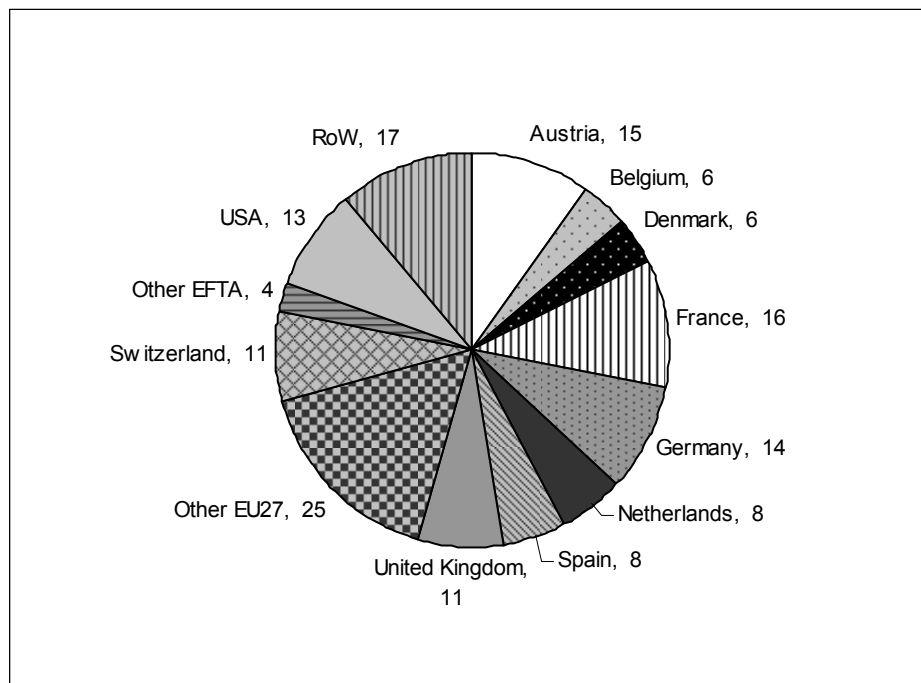
2.61 The high share for acquisitions of companies based in the Czech Republic is driven to a large extent by a single deal whereby Generali PPF BV acquired Česká pojišť'ovna a.s (Generali PPF is a joint venture between the Italian insurer Generali and the PPF Group which is located in the Netherlands).

Analysis by source

2.62 We now turn to the source of these transactions (i.e. where the acquiring business is based). Figure 2.13 and Figure 2.14 show the source country for M&A activity broken down both by the number and value of transactions.



Figure 2.13: Total Cross-border M&A 1999–2008, by Source (NB overall cross-border deal numbers, total = 154)



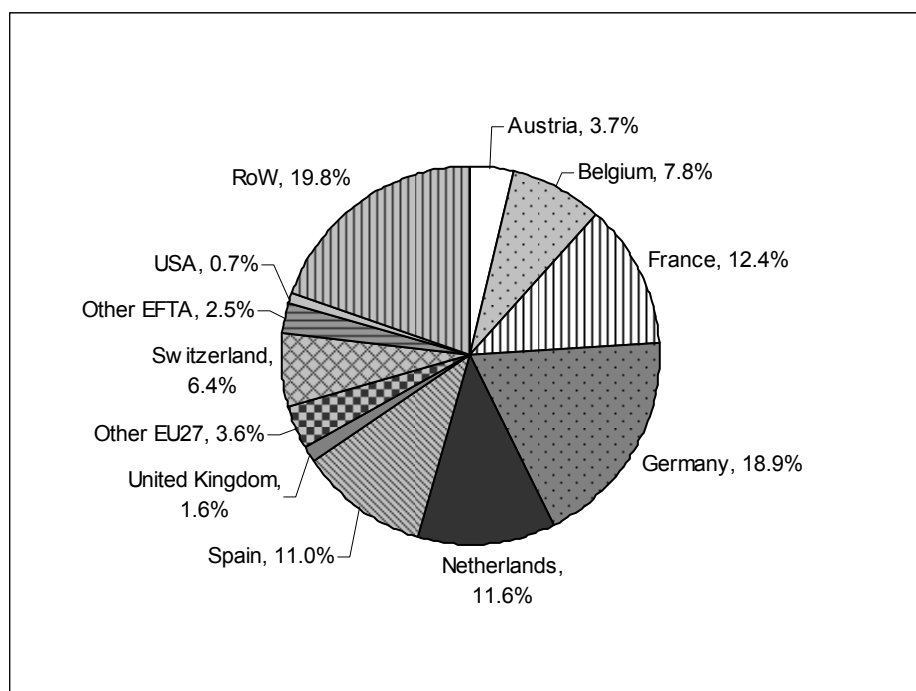
Source: Bureau van Dijk Zephyr and Isis databases; Europe Economics. RoW represents the "Rest of the World".

- 2.63 Austrian insurers have been highly acquisitive in Central and Eastern Europe (all but one of the acquisitions by Austrian companies was of a business headquartered there). This is reflected in the higher proportion of deals than values. The value of an established operator in Central and Eastern Europe is likely to be significantly below that of one in a more developed economy of similar size.
- 2.64 Belgian firms focused their activity largely on the Netherlands and also in Central and Eastern Europe. Danish firms focused upon Scandinavia, the Baltic States and Germany.
- 2.65 In way of contrast, French and German insurers have made acquisitions more broadly. This includes German firms buying well-established market operators in developed markets such as France, Italy, the UK and the USA (resulting in the acquisitions by German firms featuring more prominently in the analysis by deal value, Figure 2.14 below).
- 2.66 On the face of it, French firms have been less active in Central and Eastern Europe (the businesses acquired may have had operations in CEE Member States even when the headquarters was elsewhere).
- 2.67 Dutch and Spanish firms have also been quite diverse in terms of geographic spread — with the Dutch acquiring Greek and Polish firms, for example, and Spanish ones buying in the USA as well as across Europe.



2.68 The preferred destination of cross-border M&A for UK firms has been the USA, Italy and Ireland. Firms from the USA have turned mostly to the UK, France and Italy. Swiss firms have been most active in France and Germany.

Figure 2.14: Total Cross-border M&A 1999–2008, by Source (by proportion of overall cross-border deal value)



Source: Bureau van Dijk Zephyr and Isis databases; Europe Economics. RoW represents the "Rest of the World".

2.69 Looking at those deals sourced from the Rest of the World (RoW), a significant number are sourced from Bermuda. These are mostly connected to insurers with significant USA operations, who have located to Bermuda (and other offshore locations) for a mix of fiscal and supervisory reasons. The share of USA acquirers is therefore (arguably artificially) deflated.

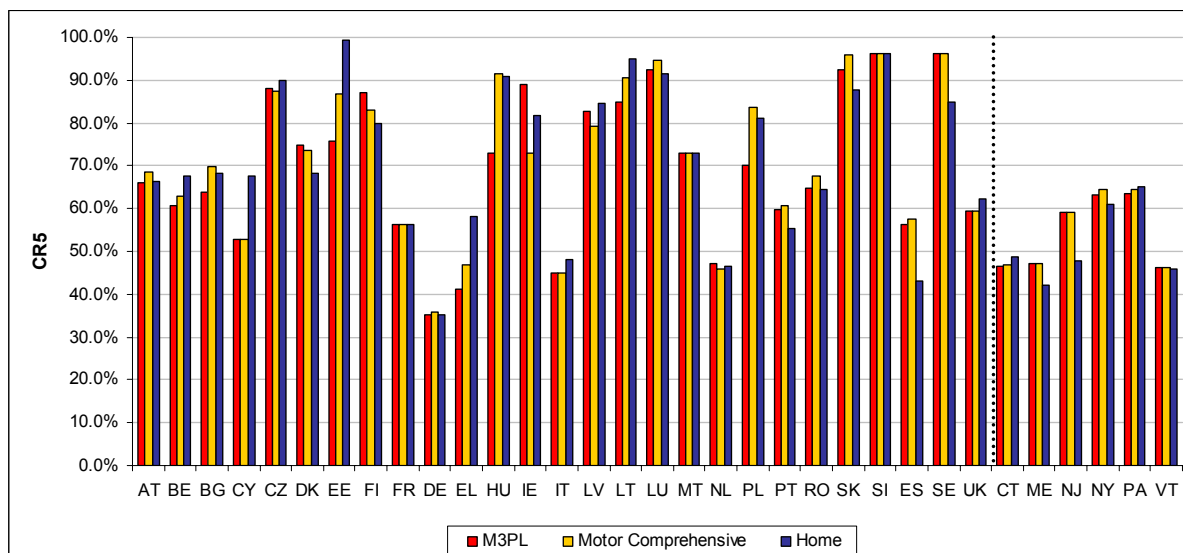
Market Concentration of the Top Five Operators

2.70 Figure 2.15 reports the Concentration Ratio (CR5) for each product market in the EU27 and the Selected USA states.¹⁵ Germany, Italy, and the Netherlands appear to be the countries with the least concentrated markets as in none of the insurance products do the top 5 companies control more than 50 per cent of the market. The same applies to Connecticut, Maine and Vermont of the Selected USA states.

¹⁵ The CR5 index is simply the sum of the market shares of the five largest market operators



Figure 2.15: Concentration Ratios (CR5)



Source: National regulators except where stated here. The relevant data were derived by Europe Economics from the trade associations of Austria, Cyprus, Greece, Hungary, Ireland, Luxembourg, Slovenia and the UK. The Slovenian CR5 relates to the non-life sector as a whole. For France and Malta the CR5 was calculated using data from the CEA relating to the non-life sector as a whole. Data on concentration from CEIOPS in its Statistical Annex 2008 is similar in the case of Malta, but notably lower — at 36.4 per cent — in the case of France. We have preferred the CEA data as it also provides a breakdown of the market shares of the leading operators. The market share data for the Selected USA states were derived from publications of the National Association of Insurance Commissioners (NAIC). In the USA, Auto Liability has been taken as the closest proxy to M3PL; Auto Total for Motor Comprehensive and Home-owners Multi-peril insurance as the best proxy for Home.

- 2.71 Generally, the concentration ratios across the three product markets tend to be very similar. Partial exceptions to this general rule are Estonia, Hungary and Poland where M3PL is notably less concentrated than the other markets (although still highly concentrated).
- 2.72 Germany is, by some distance, the least concentrated market.¹⁶ Low concentration is normally correlated with a high degree of competition. However — as we discuss at greater length elsewhere — the market share of the leading operators is not the sole determinant of market structure. In particular, the distribution channels adopted can have a significant effect — so that greater reliance on direct sales and tied agents would potentially reduce the strength of competition.
- 2.73 There are three groups with particularly high concentration. First, the CEE Member States tend to display on average a higher market concentration. Indeed, the CR5 ratios are extremely high in the Baltic States (where the top five operators control more than 75 per cent of the market in all three products), the Czech Republic, Slovakia and Slovenia.

¹⁶ As we note below Figure 2.15, the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) Statistical Annex 2008 indicates the CR5 for the non-life sector in France as being 36.4 per cent, against the CEA's figure of 56.5 per cent. If the former level of concentration is a better guide to the actual level of concentration in the French motor or home insurance markets then concentration in France and Germany would be highly comparable.



- 2.74 There are (up to) two explanations at work here: (i) prior to the transition to being market economies insurance was frequently the preserve of a state-owned monopoly. The former monopoly has normally retained market leadership and in a number of cases the market leader has an apparently dominant position. For instance, in Poland, the market leader has between 40 per cent of the market in M3PL and about 50 per cent in the other two segments. Similarly, in Slovenia the market leader has over 50 per cent of the non-life market measured by premiums written; (ii) in addition, the Baltic States and Slovenia are relatively small markets.
- 2.75 The second group with high market concentration is the insurance markets in the Scandinavian states. Again, these are relatively small markets. In addition, the bancassurance model is quite strong here — in Finland, distribution by the direct channel (including via bancassurance partners) and by tied agents are very important in private lines insurance. The result is that Finns frequently single-source their financial services.
- 2.76 Finally, in a category by itself in this regard, Luxembourg is quite concentrated with two long-standing local firms forming what verges on a duopoly with a joint market share exceeding 60 per cent in both motor lines and in home insurance.

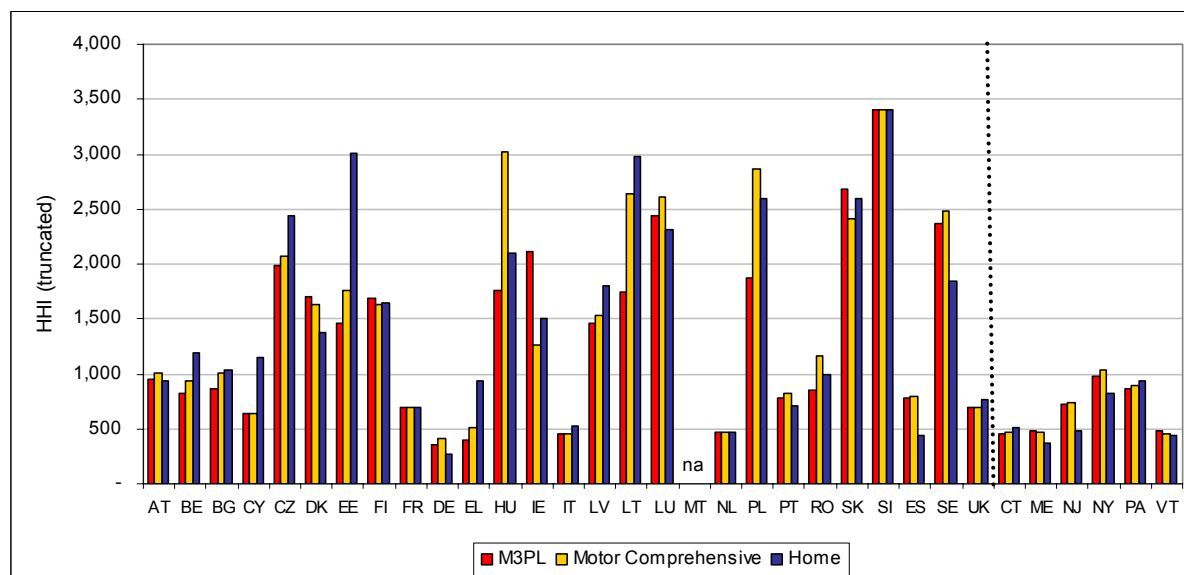
Herfindahl-Hirschman Index

- 2.77 One limitation of the CR5 as a measure of competitiveness is that it does not take into account the relative sizes of the leading players. This can be important. Consider two markets, each with only five operators (i.e. the CR5 of each is 100 per cent). In a case where these players each has a 20 per cent market share the competitive dynamic is likely to differ markedly to one in which the leading operator has 80 per cent of the market whilst each of its four competitors has a five per cent stake. The HHI would be calculated as 2,000 for the first market against 6,500 for the second (the lower the HHI, the greater the competitive level is taken to be).
- 2.78 The Herfindahl-Hirschman Index (HHI) is defined as the sum of the squares of the market shares of the largest firms and so gives greater weight to the larger firms. In the classic application of the HHI, the market shares of the 50 largest firms are considered. This depth of information is not available to us — therefore we have used the market share data of the five largest firms to generate a (somewhat truncated) HHI. However, given the scale of the concentration that is fairly endemic in these markets, the practical difference will be very limited except for in the least concentrated markets (to give a sense of this, we estimate that the HHI would typically be underestimated by perhaps 2–3 per cent). Given the small scale of the systematic underestimation forced upon us in this regard, we do not judge it to be of great import.¹⁷

¹⁷ For reference, a HHI of 100 or less is seen as highly competitive; 1000 indicates that a market is unconcentrated; an index score above 1000 indicates a moderate degree of concentration and a score in excess of 1800 indicates high concentration. A three per cent difference, for example, would mean that cut-off point between not being concentrated and moderate concentration would drop



Figure 2.16: HHI



Source: National regulators except where stated here. The relevant data were derived by Europe Economics from the trade associations of Austria, Cyprus, Greece, Hungary, Ireland, Luxembourg, Slovenia and (in part) the UK. The Slovenian HHI also relates to the non-life sector as a whole. For France the HHI was calculated using data from the CEA relating to the non-life sector as a whole. The market share data for the Selected USA states were derived from publications of the NAIC. In the USA, Auto Liability has been taken as the closest proxy to M3PL; Auto Total for Motor Comprehensive and Home-owners Multi-peril insurance as the best proxy for Home.

2.79 The HHI analysis shown in Figure 2.16 emphasises the differences between markets to greater effect than the CR5. That said, the identity of the markets with the least apparent competition remain broadly the same (although the markets in Bulgaria and Romania, in particular, perform better in terms of the HHI than the CR5 — in contrast to many other CEE Member States, the difference between the market leader and the number two is not marked in Bulgaria and Romania).

2.80 It also is worth highlighting that none of the markets score sufficiently low on the HHI so as to be classified as highly competitive (although Germany comes close).

2.81 Further, examination of the distribution models in each country is also important in forming a view on the effective competitiveness. This is examined in Sections 6 and 7.

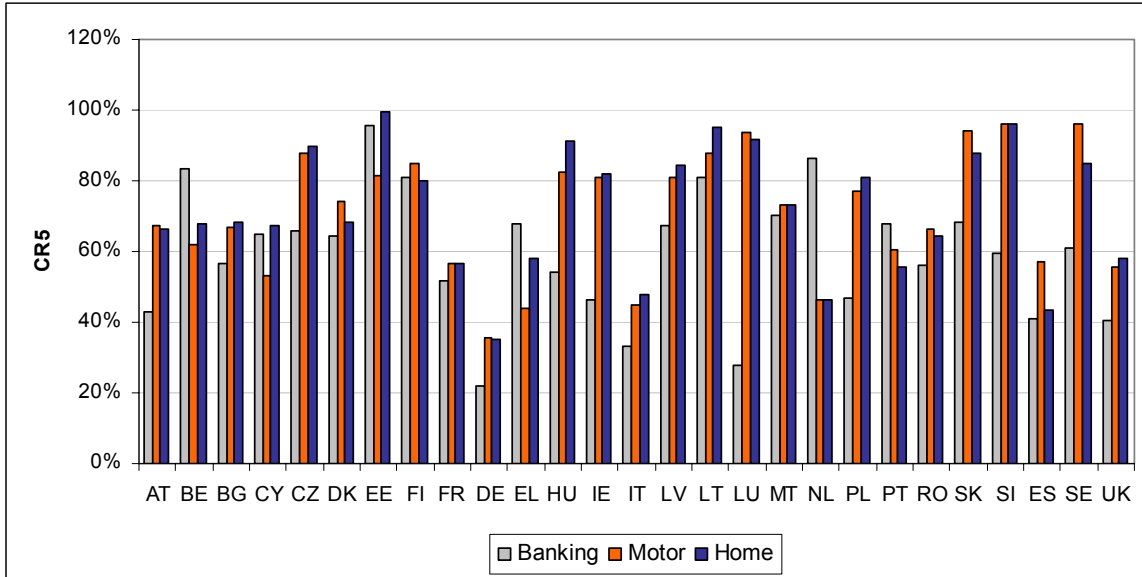
Comparison to the banking sector

2.82 We compare below in Figure 2.17 and Figure 2.18 the CR5 and the HHI of the banking to the motor and home insurance sectors in EU27.

to 970. However, the associations of the HHI in this respect are not so rigorously founded such that fine-slicing in this way would be sensible.

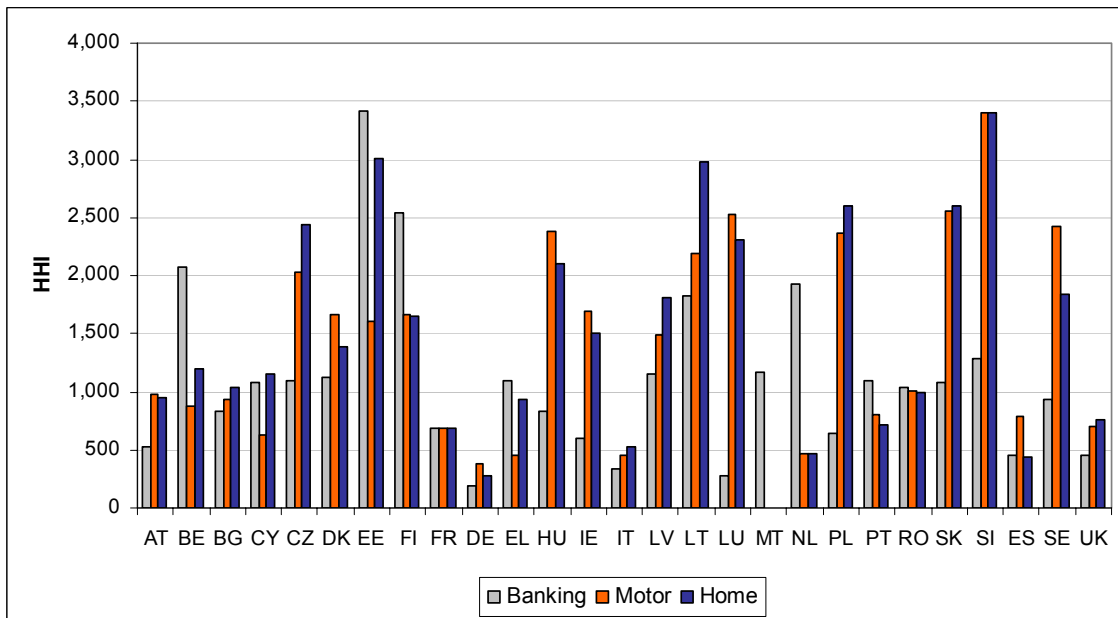


Figure 2.17: CR5 in Insurance and Banking in EU27



Source: The CR5 motor is calculated as an unweighted average of the CR5 of the two composite segments. The home CR5 is as above. The banking CR5 is from Table 3 of the European Central Bank's EU Banking Structures Report (October 2008). This looks only at the assets of credit institutions and adopts a "host country residence" approach on a non-consolidated basis.

Figure 2.18: HHI in Insurance and Banking in EU27



Source: The HHI motor is calculated as an unweighted average of the CR5 of the two composite segments. The home HHI is as above. The banking HHI is from Table 3 of the European Central Bank's EU Banking Structures Report (October 2008) and uses the same dataset as the ECB's calculation of the CR5.



- 2.83 The market structure of the banking sector is at variance to that in retail insurance in a number of countries.¹⁸ In some cases, this is simply a reflection of the ECB reporting upon banking as a single entity, rather than “retail banking” specifically. This is a plausible explanation for the low concentration in Luxembourgish banking.
- 2.84 In both Belgium and the Netherlands, the banking sector is notably more concentrated than either retail insurance market. By way of contrast, in a number of the CEE Member States — in particular, the Czech Republic, Hungary, Poland, the Slovak Republic and Slovenia — the banking market is notably less concentrated so that, *prima facie*, with a more competitive market structure having been achieved in the transition to a market economy relative to the insurance sector.
- 2.85 It is worth noting that (looking at the HHI) the home insurance market structure is more closely correlated to banking than is the case with motor insurance. This is likely to be a reflection of differences in sales and distribution practice: there may be a greater degree of bundling, say, between home insurance and mortgage finance (which will typically be arranged through a credit institution) than is the case with motor insurance and any financing arrangement (likely to include leasing finance at point-of-sale as well as a greater preponderance of cash transactions).

Identity of the five leading operators

- 2.86 We have identified the top five market operators (by country and by segment) in Appendix 2.

¹⁸ The correlation between the CR5 of banking and that of the motor insurance market is 24 per cent and of the home insurance markets 36 per cent. The correlation between the banking HHI and that of either retail insurance market is just 11 per cent.



3 THE RELATIVE SCALE OF CROSS-BORDER ACTIVITY

- 3.1 Before turning to the actual data on the current scale of cross-border insurance activity, we begin by discussing the factors that encourage or discourage cross-border trade.

Factors Encouraging and Discouraging Cross-border Trade

- 3.2 We divide our analysis of the factors that encourage (or discourage) cross-border activity into those that are demand-side (i.e. influenced by policyholders) and supply-side.

Demand-side factors

- 3.3 A survey conducted by IPSOS INRA (on behalf of DG SANCO) of 29,000 consumers¹⁹ in 25 Member States highlighted that consumers were mostly satisfied with domestic insurance offerings and also that the latent demand for cross-border trade in insurance was likely to be low — this will naturally constrain the scale of the market opportunity for insurers.
- 3.4 The consumers surveyed by IPSOS were well satisfied with the local service (with insurance ranked second, in terms of satisfaction, of the eleven products surveyed) and 88 per cent of them believed that there was sufficient competition in their domestic insurance market. Moreover, strong customer loyalty (87 percent intended to remain with their current insurance provider) coupled to only a minority (37 per cent) being aware being able to purchase insurance products from an insurer outside their country would further limit the scale of the market opportunity.
- 3.5 This does not, of course, preclude latent consumer demand for cross-border insurance. We consider the following drivers that could either promote or retard the level of demand:
- (a) The relative pricing of products sold across borders compared to domestic offerings;
 - (b) The existence (or absence) of product features in cross-border products compared to domestic offerings; and
 - (c) The level of consumer concern about difficulties in cross-border claims management.
- 3.6 Our data gathering did not indicate strong views one way or the other on the first two factors.²⁰ This did not vary significantly across the different products. Even if these effects do not apply at the general level, there will still be specific instances where price and/or features are significant.

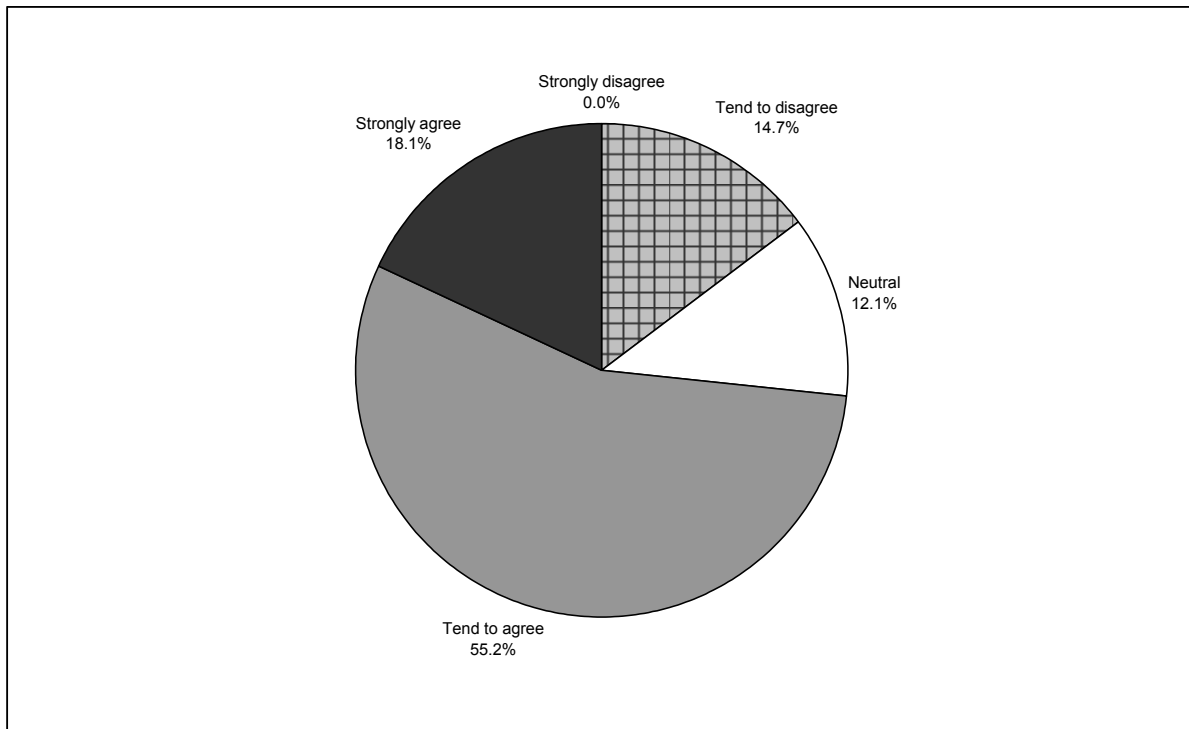
¹⁹ IPSOS INRA Consumer Satisfaction Survey Report published in May 2007. This consumer satisfaction survey covered the then EU25 (i.e. it did not cover Bulgaria and Romania). The other financial services product included was retail banking, which came 4th overall in terms of customer satisfaction.

²⁰ Customised surveys were distributed to a mix of stakeholders — insurers, insurance intermediaries, regulators and consumer associations.



3.7 There is a strong perception that consumer demand is negatively influenced by concern over claims management. The balance of opinions expressed is illustrated in Figure 3.1.

Figure 3.1: Stakeholder views on the statement that there is “Low consumer demand for products sold across borders due to concerns about difficulties in cross-border claims management”²¹



Source: Europe Economics (EE) stakeholder survey

3.8 The perception, then, is that the absence of a local presence in the policyholder’s country of residence would significantly impact upon customer demand. Such cultural and linguistic factors also play a more general role. This was certainly a recurrent theme in dialogue with market participants. For instance, the CEA believes that retail insurance is likely to remain local for the foreseeable future because consumers prefer to shop locally, they prefer to rely on local providers and distribution channels which they are familiar with. This latter point implies that those markets where distribution is largely through tied intermediaries will be particularly difficult to enter on a cross-border FPS basis.

3.9 Finally, currency differences are likely to play a role by making price comparison more complex and (potentially) making the settlement of claims less transparent for the policyholder (i.e. would compensation be in the policyholder’s own currency or not).

²¹ We conducted a survey across four stakeholder groups — insurers, insurance intermediaries, national supervisors and consumer associations, receiving 65 responses from 20 Member States in the period June–August 2009. These replies have been aggregated in Figures 3.1–3.4.



3.10 These can be significant factors in limiting cross-border trade. Of course, language and currency are not always different — within the euro area there are countries that are not separated by language or currency. On the other hand, such differences could also promote cross-border trade — an expatriate might prefer to purchase insurance (if available) from an insurer in his or her homeland.

Supply-side factors

3.11 The same factors are also significant in terms of the supply-side— there are likely to be non-trivial costs incurred in order to deliver a satisfactory service on a cross-border basis (such as ensuring compliance with local legislation). The more limited the opportunity, then the less likely it is that such costs can be covered by the profits on business written. This also implies that smaller markets may be less attractive on a FPS basis.

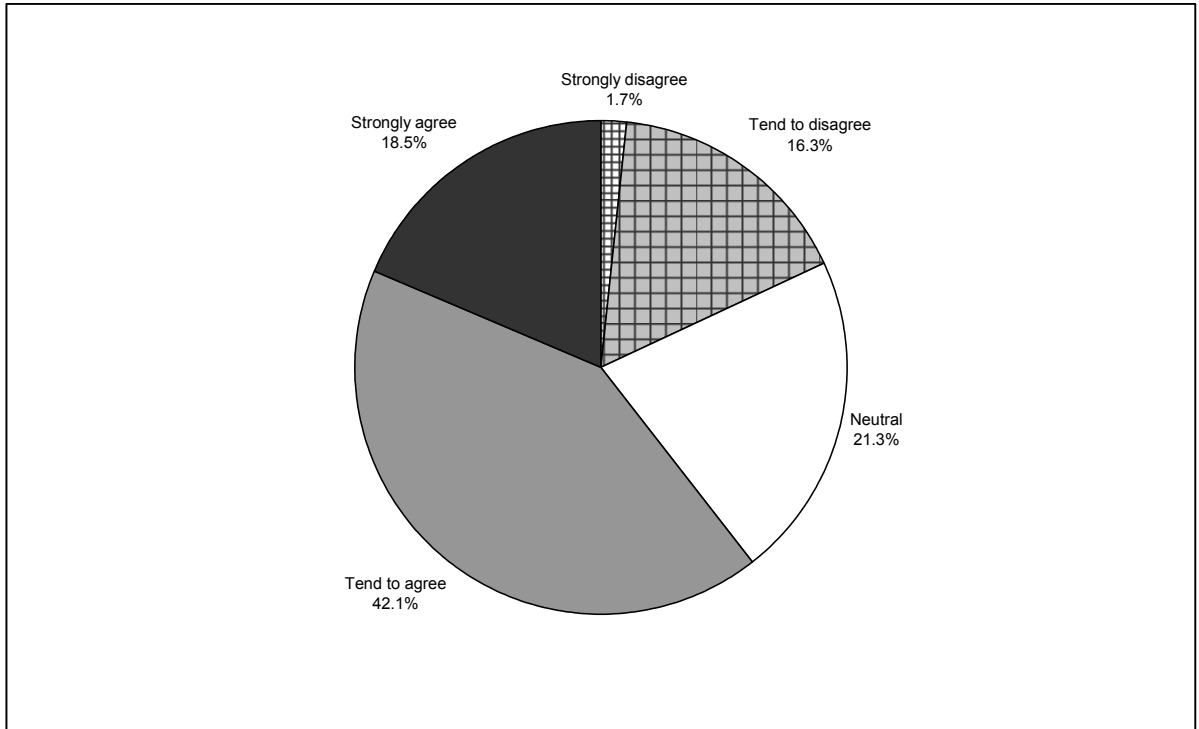
3.12 Our data gathering amongst insurance providers indicated broad (but not unanimous) support for a number of factors discouraging operators from acting on a FPS basis:

(a) First — whilst generally accepting the principle that provision on a FPS basis should represent a low cost option compared to the establishment of a permanent presence — the caveats were made that the cost of setting up an effective distribution network or of building a brand could still render it uneconomic to do so.

(b) Second, differences in insurance contract law can limit the opportunity, lead to costs being incurred in checking compliance with local law (and also potentially related to the re-design of those products) or even expose the insurer to additional risk. The views expressed by market participants are identified in Figure 3.2.



Figure 3.2: Market participant views on the statement that “Differences in insurance contract law limit the market opportunity and/or expose the insurer to unacceptable risks”



Source: EE stakeholder survey

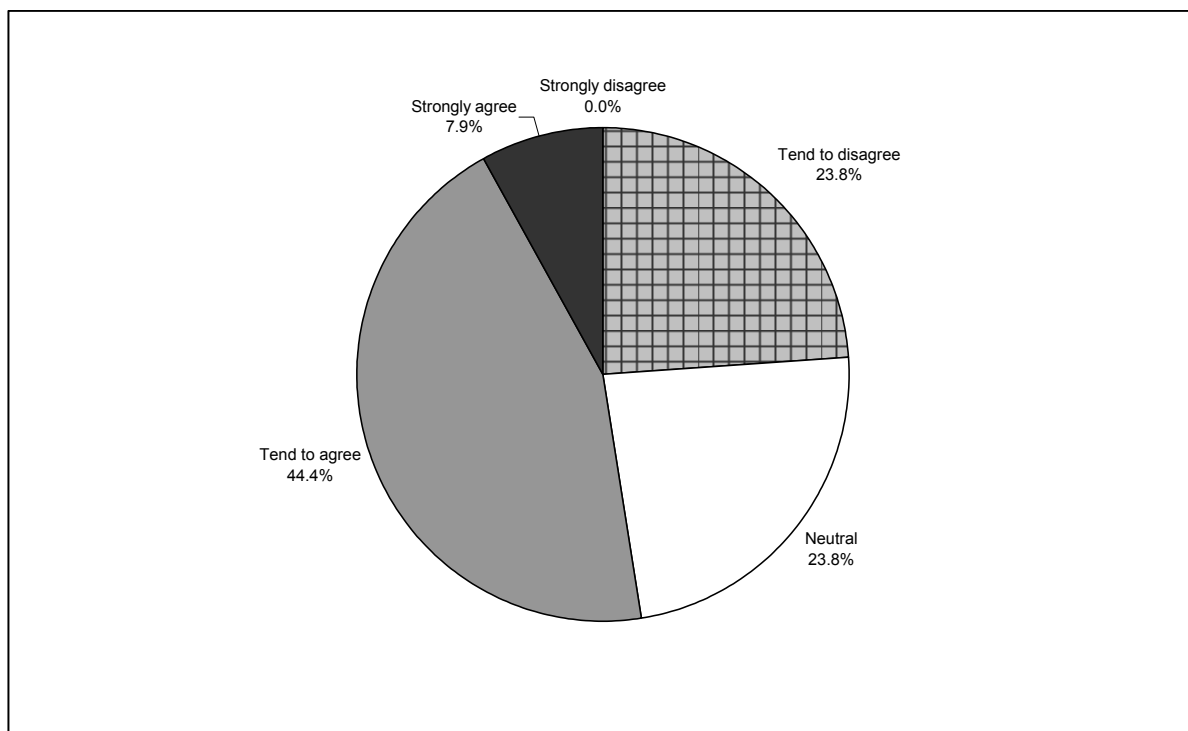
Clearly, this is perceived to be a major issue (although, as ever, not without some dissenting voices). Although the views expressed were similar across all three product categories, legislative differences were seen as the greatest concern in M3PL.

- (c) Third, insurers across Europe use a variety of underwriting models in order to price product. The variables populating these models vary between insurers. There are also differences in practice that apply between countries (e.g. Swedish insurers utilise an individuals’ credit score in setting a premium — this is relatively uncommon in Europe).

Without the necessary data with which to populate these models, the insurer either has to acquire the necessary data (but without the necessary scale to spread the expense, this could prove costly) or re-design its models (again, this may prove costly). Views on this are shown in Figure 3.3. The clear implication is that data availability is a perceived issue in at least some markets.



Figure 3.3: Market participant views on the statement that “Adequate statistical data are not available”

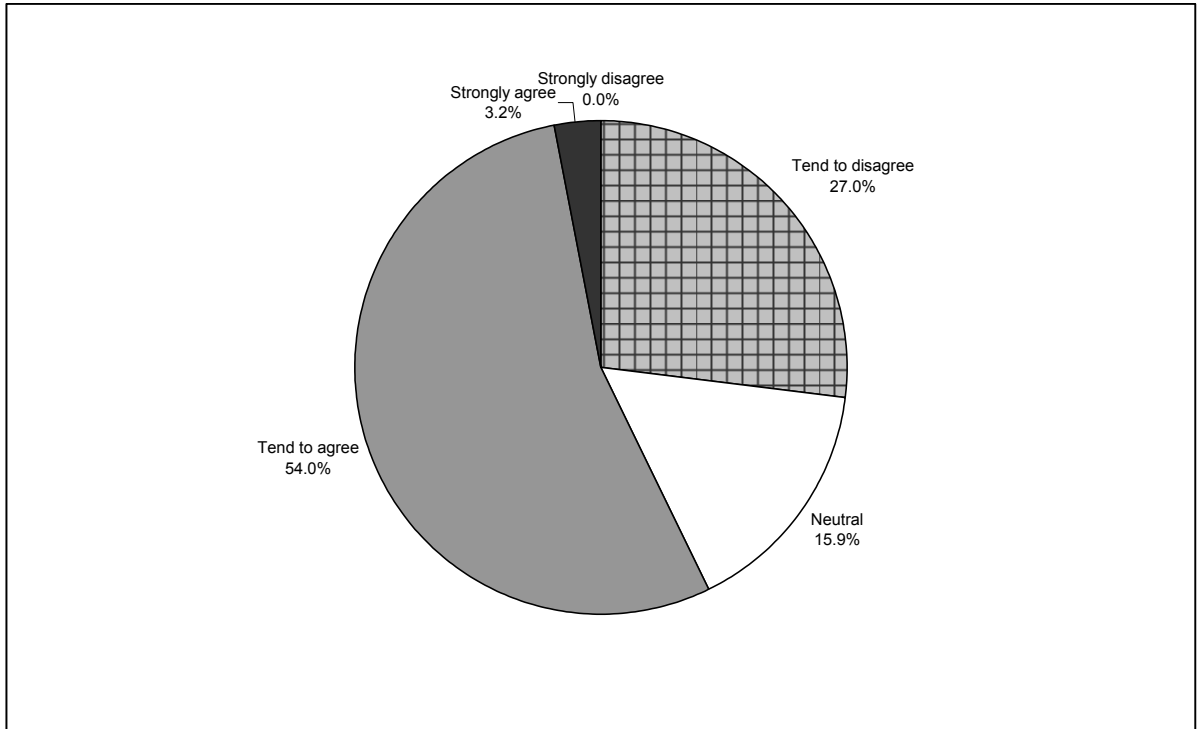


Source: EE stakeholder survey

- (d) Finally, there was support for the idea that cross-border claims management remains complex and expensive. This can extend beyond linguistic barriers. An integral part of the management of moral hazard by many insurers relates to having an approved list of garages or builders through which remedial work is conducted. Market intelligence gained through long experience is required for such endeavours — on the other hand, in their absence, the perceived risk of claim inflation or even outright fraud is likely to be higher. The views of market participants are shown in Figure 3.4.



Figure 3.4: Stakeholder views on the statement that “Increased complexity and cost of claims management makes FPS economically unattractive for the insurer”



Source: EE stakeholder survey

The Determinants of Cross-border Activity

- 3.13 This section provides a framework for understanding the drivers of cross-border activity (both FOE and FPS) in the EU27. We used econometric analysis of the possible determinants of cross-border activity in order to achieve this.
- 3.14 We set out the technical details of our approach in Appendix 1. Generally speaking, the aim of our econometric approach is to explain the premiums written in another Member State by:
- (a) Country of origin variables, i.e. those variables related to the economic and market characteristics of the country from which the FPS activity originates or the branch owner is located;
 - (b) Country of destination variables, i.e. those variables related to the economic and market characteristics of the country where the premiums are written; and
 - (c) Cross-country variables, i.e. variables that represent a specific relationship between the originator and destination country (e.g. a dummy variable that indicates whether the two countries have a contiguous border, whether they have a similar legal regime, etc).



- 3.15 The dependent variable that we sought to understand (i.e. the cross-border premiums originating in country i and written in country j) is, in many cases, zero (i.e. no firms from country i sell any insurance in or to consumers in country j). When it is non-zero, it is a continuous variable. As a result we used a Tobit model, the standard approach to deal with such a censored dependent variable.
- 3.16 The model was estimated separately for the three product segments (M3PL, motor comprehensive and property insurance) and according to whether premiums were generated through FOE or FPS. The methodology we followed to identify the correct model specification consisted of including all potentially relevant explanatory variables and then reducing the number of regressors by including only those that are statistically significant (the general to specific approach). The rationale for this approach is the minimisation of potential bias due to omitted variables. Standard diagnostic tests were carried out in order to ensure a constant variance and normality of the residual error terms.²²
- 3.17 The variables that emerged as being important factors in determining the extent of cross-border activity are set below. Some of these variables are significant only for some model specifications (i.e. for some product category and/or type of sale — FPS or FOE). Further detail is provided in Appendix 1.

(a) Country of origin variables:

- *Non-life premiums in the home market.* This variable simply measures the size of the non-life insurance market in the originator country, and is positively correlated with the value of cross-border premiums. The variable emerged as being highly significant for most model specifications. The larger markets have the largest firms — those with the greatest resources to investigate and execute cross-border activity.
- *GDP per capita in the home market.* This variable provides an indication of the general economic wealth of the country from which the cross-border activity originates and where significant, it has a positive effect on the extent of cross-border premiums written. The interpretation is that firms located in richer countries are more likely to be engaged in cross-border activity — either because opportunities at home are in large part tapped already or else are more technically developed, providing an in-built advantage. This technical advantage may be limited to particular niches within the segments — such as motor insurance provision to young drivers.

²² This assumption is required in order to ensure that the econometric model is correctly specified and that it produces robust estimates.



- *The CR5 concentration index of the insurance market of the home country.* This variable proved to be significant in explaining only cross-border premiums written in the motor comprehensive sector. The effect of the variable is positive, which we interpret as follows: when competition in the home market is high (i.e. the CR5 index is low), firms tend to seek business opportunities abroad. An alternative explanation is that a high competition in the home market forces firms to operate more efficiently, which in turns increases their ability to sell on a cross-border basis.

(b) Country of destination variables:

- *The revenues of the host insurance market (motor and property segment, respectively).* This variable indicates the size of the relevant insurance market in the host country. The effect of this variable is positive, but significant only for the motor segment.
- *GDP per capita in the host market.* This variable, whenever significant, is positively correlated with the scale of cross-border premiums. This means that operators are generally more likely to conduct cross-border activity in wealthier countries (in which citizens tend to buy more insurance).
- *The share of premiums distributed through independent intermediaries in the host market.* This variable indicates the availability of a ready-made distribution channel in the host market (i.e. avoiding the cost to an insurer of setting up its own distribution network). The effect of this variable on cross-border activity is positive, but significant only for the M3PL segment in respect of premiums written under FOE.

(c) Cross-country variables:

- *Contiguous border.* This is a dummy variable with the value one if the originator country and the destination country share a border in common and a value of zero otherwise. Having a border in common is one of the most important factors in explaining cross-border activity. The variable is highly significant for all market segments, with the exception of the motor comprehensive segment when this business is conducted through FPS. The large positive influence of having a border in common is a simple and as such a very stable relationship. Such countries may benefit from a reduced cost of supervision (in the case of FOE). Equally, it may also capture linguistic and cultural similarities (although this does not, of course, apply in every case).
- *Common language.* We created a dummy variable with the value one if two Member States had an official language in common (including where official language status applied only to a specific province or region of a particular Member State).



- *Compatibility of the legal regimes.* This variable has been designed in order to capture the difference in national insurance tort law.²³ We have divided countries according to whether strict liability or fault-based rules apply and constructed a dummy variable to indicate whether two countries share the same general type of insurance contract law. The compatibility of legal regime is significant in a few model specifications where it shows a negative sign. This implies that firms are more likely to sell cross-border products in markets where a different legal regime applies — this result is clearly counterintuitive. Legal compatibility does not lend itself to effective capture in a dummy variable and we therefore treat these results with due care.

3.18 The results of our work are summarised in Table 3.1 below.

Table 3.1: The Determinants of Cross-border Activity

Explanatory variables		M3PL		Motor comprehensive		Property	
		FOE	FPS	FOE	FPS	FOE	FPS
Country of origin variables	<i>Non-life insurance premiums</i>		++		++	++	
	<i>GDP per capita</i>	++	++	++	++	++	++
	<i>CR5 index</i>	--	--	--			
Country of destination variables	<i>GDP per capita</i>				++		
	<i>Revenues</i>				++	++	
	<i>The presence of intermediaries</i>	++					
Cross-country variables	<i>Contiguous border</i>	++	++	++		++	++
	<i>Compatibility of legal regime</i>			--			
	<i>Common language</i>						

Note: (++) (--) = (positive) (negative) effect, significant at 95 per cent level; (+) (-) = (positive) (negative) effect, significant at 90 per cent level.

3.19 In general, our analysis indicates that cross-border insurance provision is mostly driven by the availability of supply-side resources, by the size of the destination market (and hence opportunity), and by geographical distance (which, even in the internet age, will still tend to reduce the marginal cost of service provision). Richer countries (high GDP per capita) have the (typically) larger firms (i.e. higher non-life premiums) which are looking for opportunities abroad. In the first instance, these firms will look at neighbouring countries

²³ We have identified the following legal regimes: fault based and strict liability. However, this hides nuances — in a fault-based regime, rules may apply reversal of the burden of proof or not. Similarly, strict liability may apply comparative negligence or contributory negligence rules, etc.



(contiguous borders), with a preference for those locations where the market opportunity is greatest (i.e. GDP per capita, higher revenues).

- 3.20 Other factors, such as the level of competition in the home market, the presence of independent intermediaries in the host market and the compatibility of legal regime, are less clearly important in the general case.
- 3.21 Similarly, the sharing of an official language did not have statistical significance in our results.

Freedom of Establishment

- 3.22 We have calculated the value of the outgoing and incoming premiums under FOE relative to the size of the relevant market. Outgoing premiums are shown in Figure 3.5 and Figure 3.6 for the two motor insurance segments and in Figure 3.7 for property. Equivalent presentations for incoming premiums are shown in Figure 3.8, Figure 3.9 and Figure 3.10.
- 3.23 As previously noted, data are only widely available on outgoing cross-border premiums. These have been provided by the relevant National Regulators relating to the period 2007/08 and then used to construct the incoming premiums on an assumed mirror image basis.²⁴

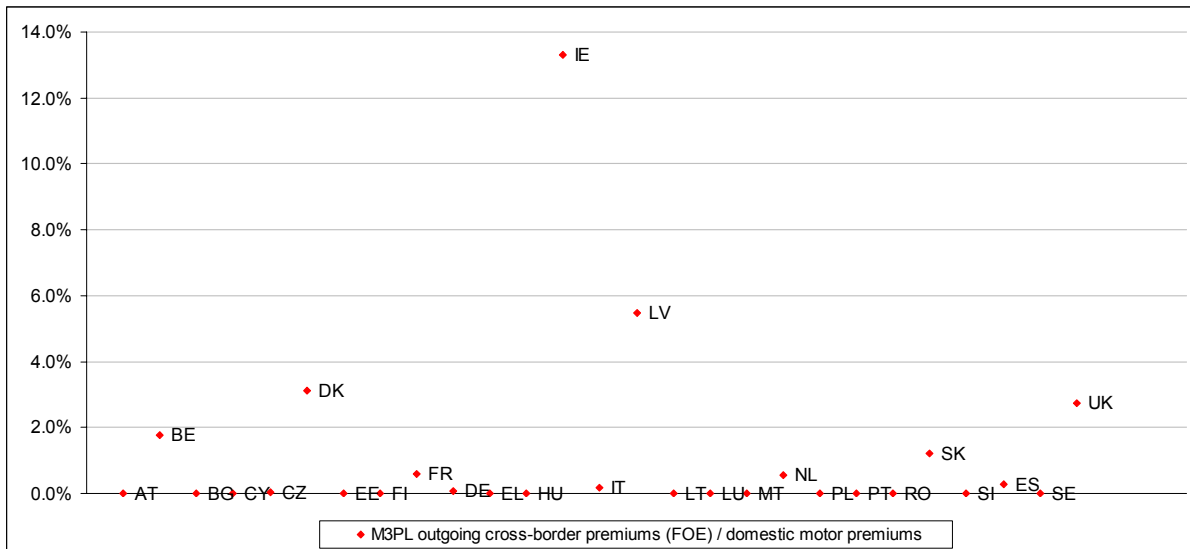
²⁴ The data for France relate to 2005.



Outgoing premiums

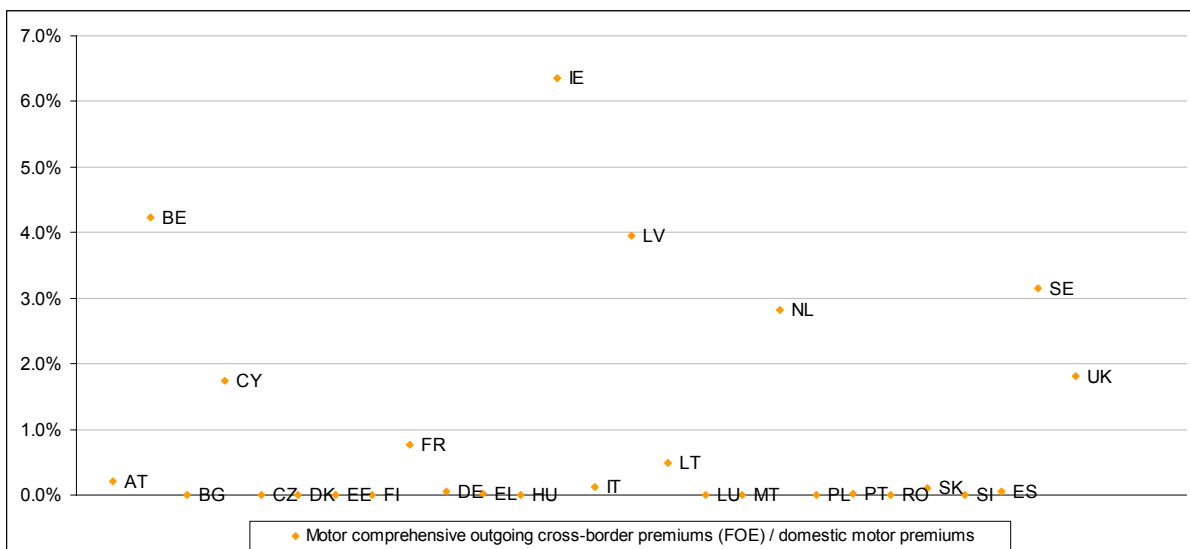
M3PL and motor comprehensive

Figure 3.5: M3PL outgoing premiums written through FOE as a share of premiums written by domestic operators in the motor segment



Source: National Regulators, CEA, CEIOPS and EE calculations.

Figure 3.6: Motor comprehensive outgoing premiums written through FOE as a share of premiums written by domestic operators in the motor segment



Source: National Regulators, CEA, CEIOPS and EE calculations.

3.24 We analyse M3PL and motor comprehensive on a combined basis for two reasons — first, the analysis is very similar, and, second, some of the National Regulators were unable to provide a breakdown of the premiums written between these two categories.



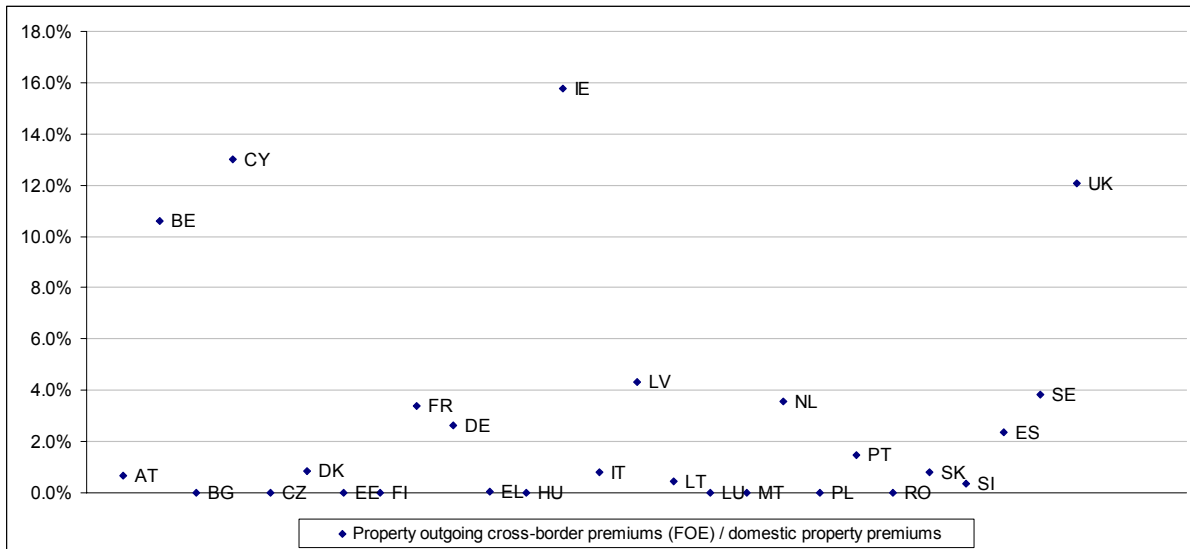
- 3.25 We calculate that M3PL and motor comprehensive premiums written on a FOE basis represent 1.7 per cent of the total motor insurance market. It is possible that under-reporting by some firms to the relevant supervisory bodies (from whom we in turn sourced the data) could mean that this is an under-estimate. Equally, the disparities between reference dates for the underlying data may result in it being under- or over-estimated (we are not able to forecast a trend in such trade due to insufficient data).
- 3.26 Ireland, Belgium, Latvia and the UK are the most significant writers of business on a FOE basis in motor insurance relative to the scale of their respective motor insurance markets. In absolute terms, 77 per cent of the FOE business we know of is written by UK, French, Irish and Belgian firms (UK firms alone accounting for 33 per cent of the total).
- 3.27 Over 80 per cent of the FOE motor premiums written by Irish firms are made through a single branch in the UK. Indeed, this highly successful Irish firm is in fact the 11th largest motor insurer in the UK, focusing in particular on younger drivers. The UK and Ireland share a common language and also a very similar approach to motor insurance (e.g. a focus upon comprehensive policies that have an approximate 90 per cent share market share in both markets). This commonality between the two countries is further emphasised here by the fact that the Irish insurer in question is in fact part of a broader group headquartered across the border in Northern Ireland (i.e. part of the UK).
- 3.28 For Belgium the preferred destination markets are France, the Netherlands and Luxembourg (where spatial and/or cultural closeness are likely to predominate). These three countries account for about two-thirds of the outgoing business written by Belgian firms on a FOE basis. Similarly, all of the Latvian business is written through branches located in Estonia and Lithuania.
- 3.29 UK firms are much more geographically diverse in the location of branches with at least one branch writing motor insurance in 15 Member States (nearly all of which are the well-established Member States of Western Europe and Scandinavia). The number of UK firms involved is not known, but is at least six (the maximum number of branches in any country, Italy). Looking at the largest 50 writers of non-life premiums in Europe, six (coincidentally) are UK-based.²⁵
- 3.30 There is no motor insurance business being written on a FOE basis by firms from Bulgaria, Estonia, Finland, Hungary, Luxembourg, Malta, Poland or Romania. With the exception of Poland, the largest locally controlled firm is relatively small by European standards with no firm in the 50 largest firms ranked by total non-life revenues (PZU of Poland is 39th).

²⁵ Ranking based upon Association Internationale des Sociétés d'Assurance Mutuelle (AISAM) Top 100.



Property

Figure 3.7: Property outgoing premiums written through FOE as a share of premiums written by domestic operators in the property segment



Source: National Regulators, CEA, CEIOPS and EE calculations.

3.31 We estimate that property premiums written on a FOE basis represent 5.2 per cent of the total property insurance market. In general, firms from more Member States are active in the cross-border sale of property insurance than the motor segment and these firms are active in more Member States. This is in large part due to the fact that figures also include commercial property insurance — in dialogue with regulators, whilst they were unable or unwilling to speculate as to the exact mix of domestic and commercial insurance in the cross-border business, the universal belief was that the domestic share was extremely small.

3.32 This said, firms from Ireland, the UK and France remain the key players with a similar rationale to that presented above in respect of outgoing motor insurance. Those with a zero share also remain the same.

Incoming premiums

3.33 The following figures provide, for each Member State and for each product segment, the level of premiums written through FOE in the domestic market by foreign branch operators. This is expressed as a share of the total premiums written in the domestic market in the relevant segment.

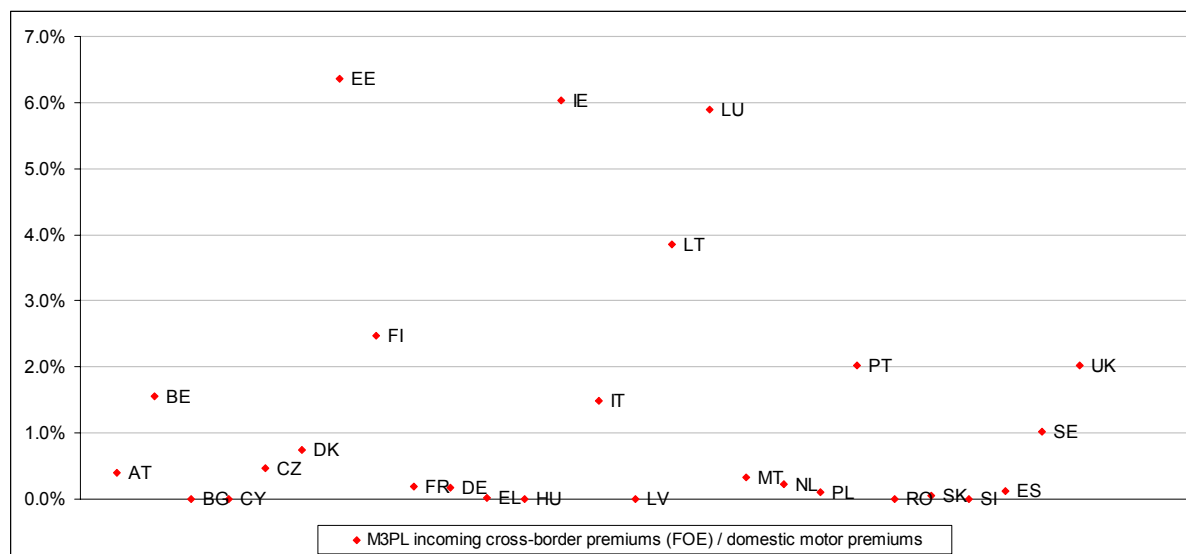
3.34 The incoming position has been calculated as the mirror image of the country by country analysis that we have for outgoing premiums. The data that we have in respect of Austria, Cyprus and Greece is not split by country (we simply have the total) — it follows that the business undertaken by firms from those countries is not represented below. However, the share of the total value of premiums written under FOE by firms from these



three countries is less than one per cent of the total; the impact upon our results is unlikely to be material.²⁶

M3PL and motor comprehensive

Figure 3.8: M3PL incoming premiums written through FOE as a share of premiums written by the domestic operators in the motor segment

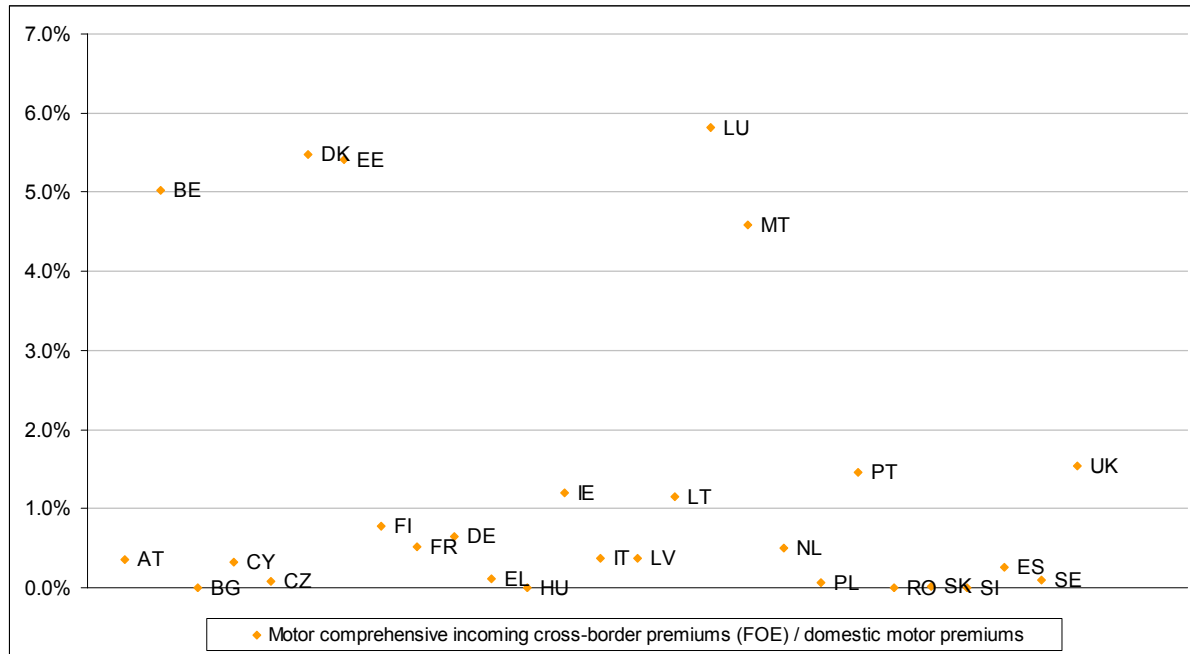


Source: National Regulators, CEA, CEIOPS and EE calculations.

²⁶ If our model of the determinants of cross-border business holds for the firms of Austria, Cyprus and Greece too then it is likely that, for example, Austrian firms are most active in Germany (where a common language would also aid), Italy, the Czech and Slovak Republics, and so on.



Figure 3.9: Motor comprehensive incoming premiums written through FOE as a share of premiums written by the domestic operators in the motor segment



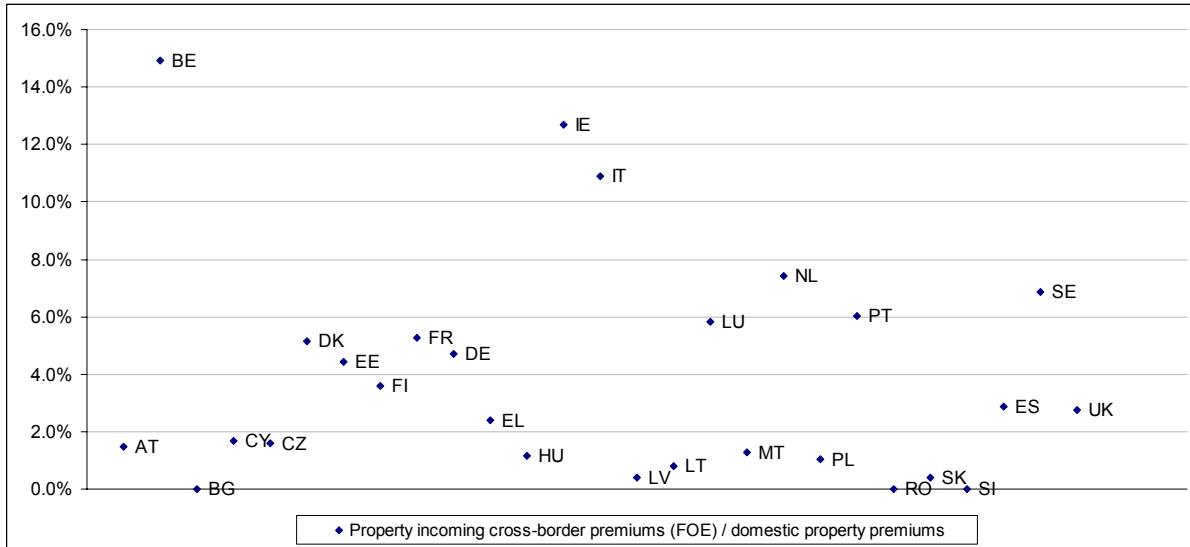
Source: National Regulators, CEA, CEIOPS and EE calculations.

- 3.35 Belgium, Estonia, Ireland, and Luxembourg are the top destinations for motor insurance written on a FOE basis in relative terms. In absolute terms it is Belgium, Germany, Ireland, Italy and the UK that dominate as destinations, accounting for over 70 per cent of the incoming motor insurance premiums.
- 3.36 The vast majority (76 per cent) of the motor business written in the UK on a FOE basis is by the Irish branch referred to in our description of the outgoing business. Similarly, nearly all of the FOE business in Ireland in this segment is by the branches of UK firms.
- 3.37 In Italy, the incoming business is written by firms from the UK, Ireland and France (with branches of UK firms accounting for just under 80 per cent of that total). We have already noted that Italy has been a popular destination for cross-border M&A activity — the largest transactions have been by French and German firms. The implication is that UK and Irish firms have preferred branching as a means of establishing a presence in this market.
- 3.38 In Bulgaria, Hungary, Romania and Slovenia there is no motor insurance business written by branches. Whilst Hungary and Romania have seen significant cross-border M&A activity, Bulgaria and Slovenia have not. This is true of Slovenia in particular — and whilst Slovenia is a relatively small country this does appear a surprising omission.



Property

Figure 3.10: Property incoming premiums written through FOE as a share of premiums written by the domestic operators in the motor segment



Source: National Regulators, CEA, CEIOPS and EE calculations.

3.39 For Ireland, Belgium, Italy and the Netherlands, the premiums originate mainly from branches run by UK operators (this will include business written through Lloyd’s).

3.40 Bulgaria, Romania and Slovenia are once again the locations with the smallest market share. Bulgaria and Romania are the least developed Member States on a per capita basis, which represents a good fit with our conceptual model.

Free Provision of Services

3.41 We now turn to business on a FPS basis.

Outgoing

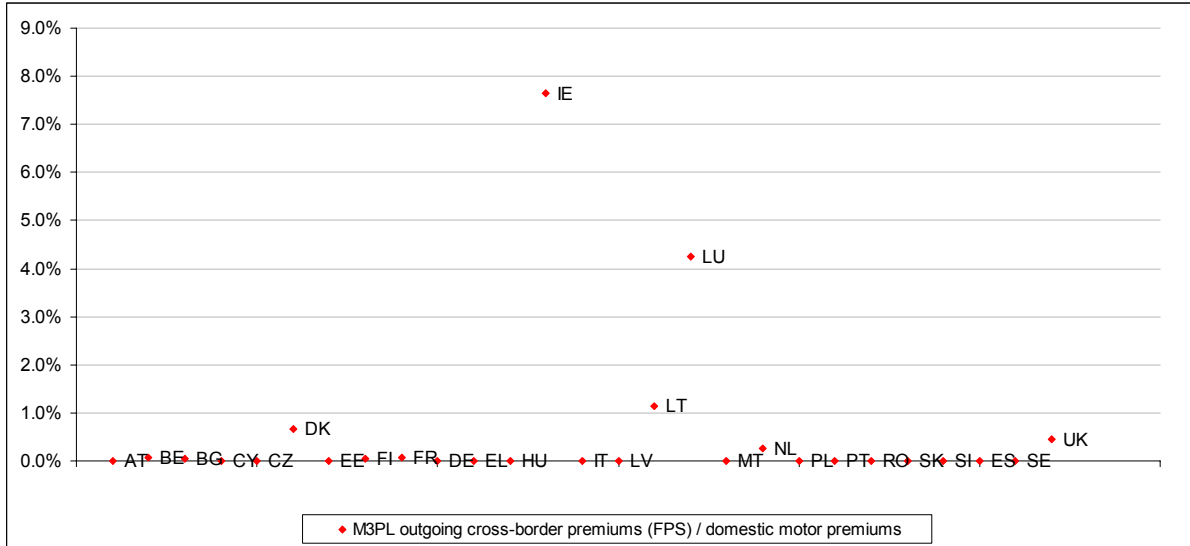
M3PL and motor comprehensive

3.42 We estimate the quantum of motor insurance (looking at both motor comprehensive and M3PL combined) written on a FPS basis to be about 0.6 per cent of the total market.

3.43 Ireland, Luxembourg and Malta are the most significant players in FPS, relative to their own market sizes. This is shown in Figure 3.11 and Figure 3.12. In absolute terms, it is firms based in Ireland, the Netherlands and the UK that are most significant. Fully 80 per cent of the total value of premiums written under FPS is derived from firms headquartered in Ireland and the UK.

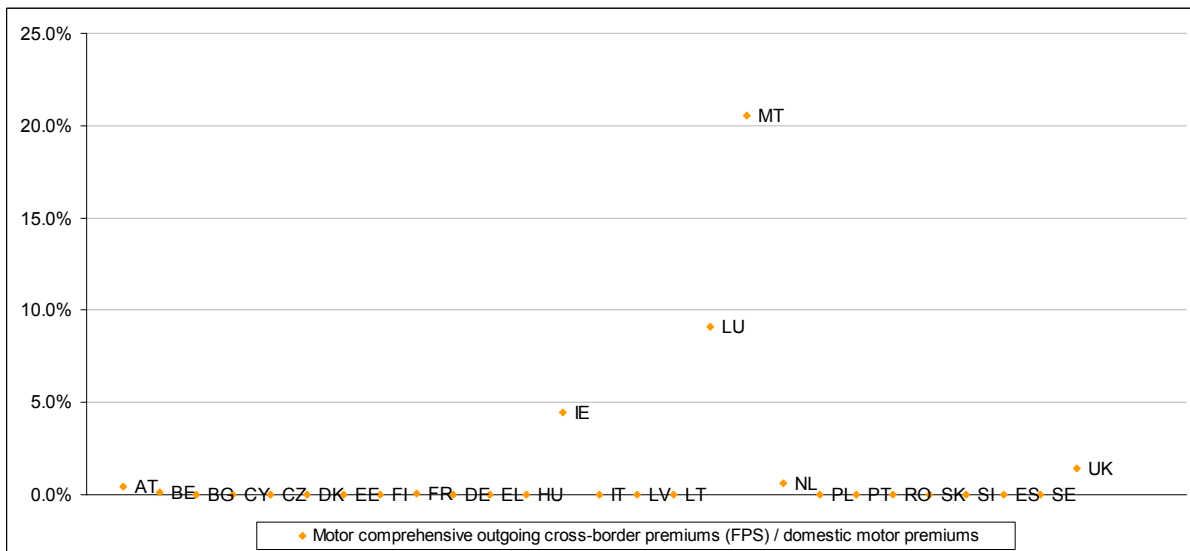


Figure 3.11: M3PL outgoing premiums written through FPS as a share of premiums written by domestic operators in the motor segment



Source: National Regulators, CEA, CEIOPS and EE calculations.

Figure 3.12: Motor comprehensive outgoing premiums written through FPS as a share of premiums written by domestic operators in the motor segment



Source: National Regulators, CEA, CEIOPS and EE calculations.

3.44 The Luxemburgish companies are active predominantly in the neighbouring states of Belgium, Germany and France. An important driver here is the estimated 6–8,000 Luxemburgish who have relocated to these countries to access more affordable housing. This expatriate community largely continue to work in Luxembourg and to source personal insurance there (both motor and home insurance).

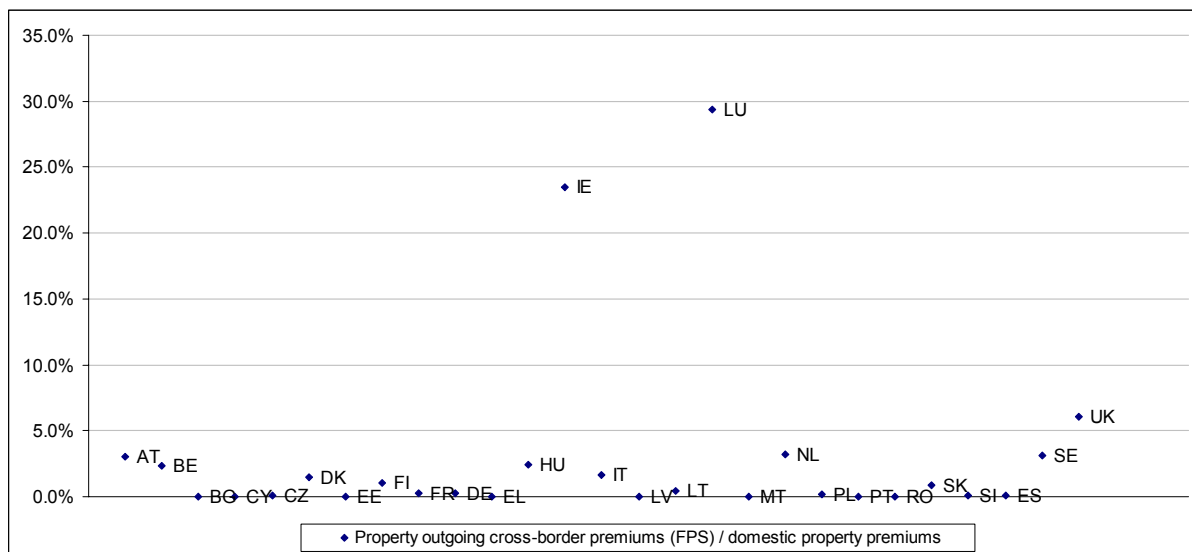


- 3.45 A single Maltese firm is writing business in the UK and Ireland (English is, of course, an official language of Malta) — these two states account for 99.8 per cent of the premiums written out of Malta.
- 3.46 The UK is the most important destination for Irish insurers. UK insurers are again notably more geographically diverse in their operations, acting under FPS in all other EU27 Member States for own damage cover (M3PL FPS business is focused on the more wealthy countries of Western Europe, similar to the branch business). Again, Ireland and Italy are the key locations for FPS business and these, together with the Netherlands, represent just under half of the premiums written by UK insurers under FPS. About 60 per cent of the business on a FPS basis by Dutch-based insurers is written in Germany.
- 3.47 CEE-based insurers are again the least likely to be involved in FPS activity on an outgoing basis — reinforcing the view it is the insurers with the technical expertise and scale gained from the most developed markets that have most to gain.

Property

- 3.48 On the same basis as before, we estimate the quantum of property insurance written on a FPS basis to be about 2.8 per cent of the total market (i.e. about one half of that written under FOE).
- 3.49 Luxembourg, Ireland, the Netherlands and the UK are the key sources (the latter three in absolute terms). This business is being written across the whole of Europe. Again, this appears to reflect the incorporation of commercial property business in the data. This is shown in Figure 3.13.

Figure 3.13: Property outgoing premiums written through FPS as a share of premiums written by domestic operators in the property segment



Source: National Regulators, CEA, CEIOPS and EE calculations.

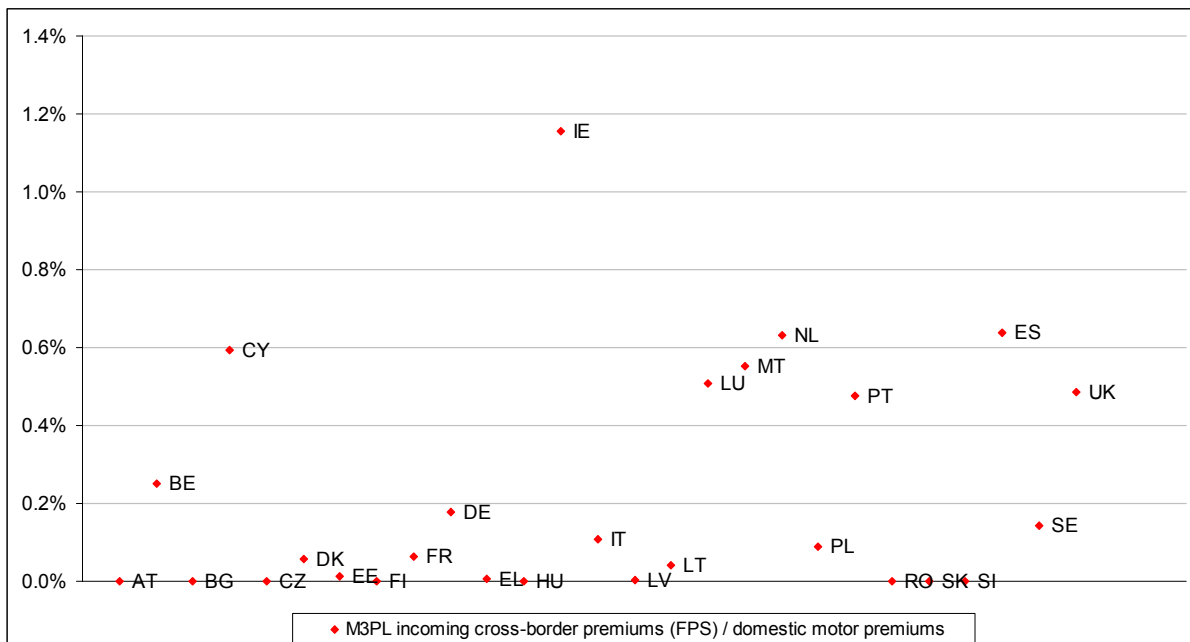


Incoming

M3PL and motor comprehensive

- 3.50 On an incoming basis, Cyprus, Ireland, Malta and the Netherlands are the markets with the highest relative shares. For Cyprus, this business is coming from the UK (although English is not an official language, it is widely understood in Cyprus, which gained its independence from the UK only in 1959). Similarly, in Ireland, the FPS business is nearly exclusively coming from the UK. This is also the case in Malta (where English is an official language). Irish and UK insurers are writing the vast majority of the FPS motor business in the Netherlands.
- 3.51 All Member States have at least some incoming business on a FPS basis. Bulgaria, Romania and Slovenia are the three states with the least incoming business (in these countries it represents no more than 0.03 per cent of the local motor insurance market). The lesser state of development is the likeliest explanation with Bulgaria and Romania. For Slovenia, given also the absence of cross-border M&A in the period considered, its market is somewhat less internationalised than its peers (although we note that two to three Italian and Austrian insurers do have long-standing interests in Slovenia). This is shown in Figure 3.14 and Figure 3.15.

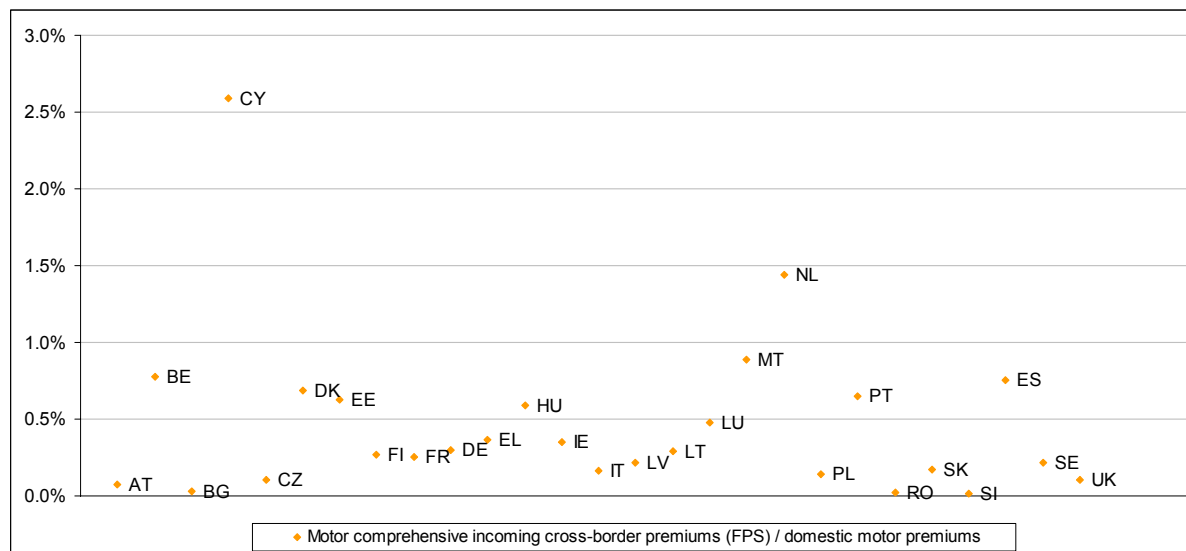
Figure 3.14: M3PL incoming premiums written through FPS as a share of premiums written by the domestic operators in the motor segment



Source: National Regulators, CEA, CEIOPS and EE calculations.



Figure 3.15: Motor comprehensive incoming premiums written through FPS as a share of premiums written by the domestic operators in the motor segment



Source: National Regulators, CEA, CEIOPS and EE calculations.

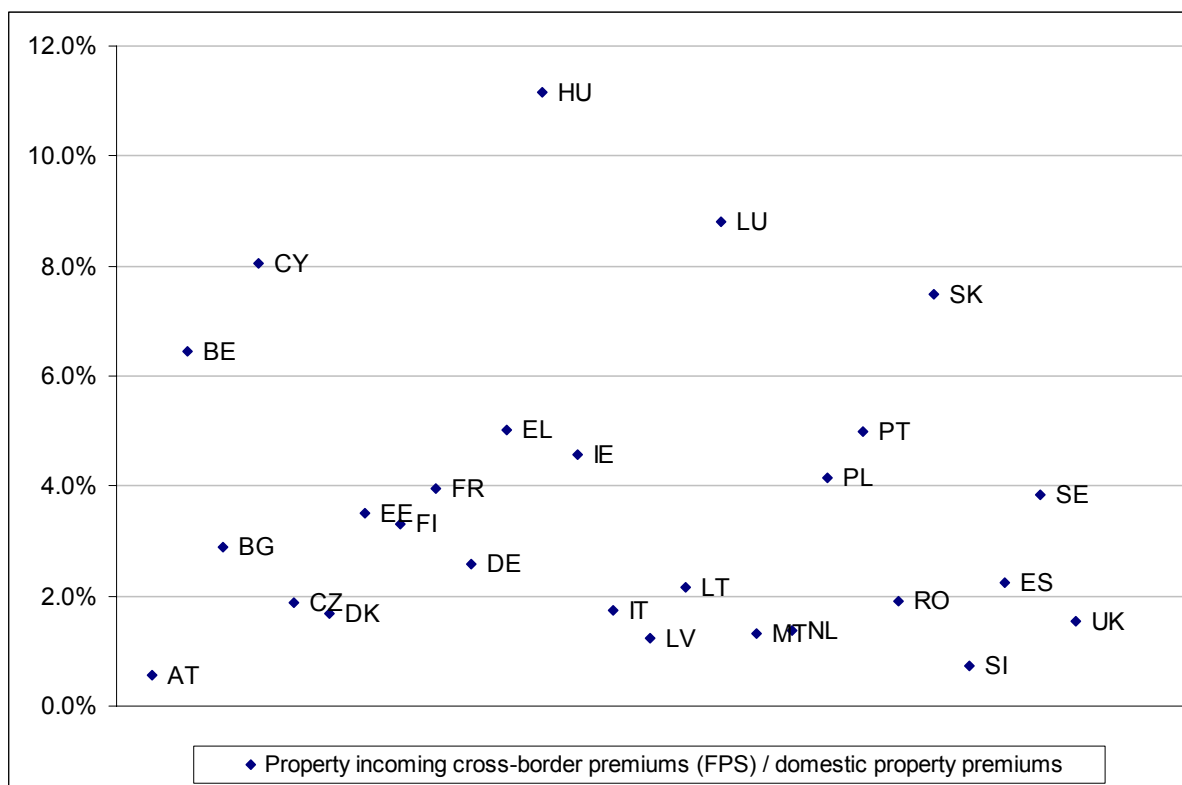
Property

3.52 Somewhat curiously (given the rest of our analysis), Cyprus, Hungary, Slovakia and Luxembourg are the key destinations for incoming property business written under FPS, see Figure 3.16. In Luxembourg, it is firms from neighbouring Germany and Belgium that predominate. In Hungary, it is Italian insurers that dominate; in Slovakia, a Hungarian insurer is the leading player amongst those firms operating on a FPS basis (indeed, our data implies that this firm would be the sixth largest operator in Slovakia on *any* basis in this product category). It is perhaps noteworthy that the Slovak Republic retains a significant minority (at about 10 per cent of the population) which considers itself ethnically Hungarian, and Hungarian retains co-official language status in some Slovak provinces. Incoming FPS premiums are relatively least important in Austria and Slovenia.

3.53 In absolute terms, the most important markets are the UK, France and Germany.



Figure 3.16: Property incoming premiums written through FPS as a share of premiums written by the domestic operators in the motor segment



Source: National Regulators, CEA, CEIOPS and EE calculations.

- 3.54 From the above analysis, it is apparent that there is a degree of reciprocity between firms from particular countries. Ireland and the UK are the most striking example of this. Over 27 per cent of all of the motor premiums written on a Freedom of Establishment basis within the EU were either sold by the branches of UK firms in Ireland or by the branch of an Irish firm in the UK. In Free Provision of Services activity, the proportion is lower, but still above 15 per cent.²⁷
- 3.55 Similarly, one Czech insurer has a branch in the Slovak Republic (this being the only branching in motor by Czech insurers), but the volumes are not significant. The reverse holds for Slovak firms with one branch selling motor in the Czech Republic, albeit at higher volumes of business. However, such reciprocity is far from automatic — for example in the Baltic States one Lithuanian-based insurer is active in Latvia and one Latvian firm is active in Estonia (with an 8 per cent market share in the motor market, which would make it the 6th largest provider in that market), with two Latvian firms active in Lithuania. However, Estonian firms do not appear to be active in Latvia or Lithuania either under Freedom of Establishment or Free Provision of Services.

²⁷ Within the EU, there are over 350 possible relationships of this type.



3.56 The data that we have do not discretely identify active firms — however, whilst it is likely that it is the larger firms that predominate it is clear that the Freedoms are not monopolised by the largest firms. The greater share of business developed under the Freedoms in (particularly commercial) property insurance corresponds to the idea that demand from businesses exceeds retail demand. Commercial insurance is more likely to be bespoke in design (i.e. it may require skills or knowledge less readily available locally) and larger risk exposures. These are likely to favour cross-border activity (particularly that conducted by larger firms).

Pan-European Products

3.57 We found no evidence for the existence of products that are currently sold to consumers on a pan-European basis, or which are under design for such a purpose. This is unsurprising given that there two fundamental obstacles to the development of such projects:

- Substantial differences in insurance contract law, supervisory approach and market practice would make the design of such a product extremely difficult (and probably impossible). These differences include: the compensation limits applied in M3PL continue to vary significantly (as we describe in a later section of this study); the varied application of General Good provisions across Member States (for instance with regard to the Gender Directive); the variation in the involvement of the State and of compunction in the treatment of Natural Catastrophe cover in home insurance
- These differences also mean that, if designed, such a product would be difficult to price competitively. For instance, a M3PL product that could be marketed across the EU would require unlimited cover (due to the need to conform to the highest common denominator). This would result in a product that is more expensive than the locally customised competition in any market where limitations in cover are in place. The same would apply in terms of Natural Catastrophe cover in buildings insurance.

3.58 Further, significant investment would be required in the necessary infrastructure implied by such an approach — i.e. in a local sales force (to provide a local point of contact to customers) and to provide localised claims handling with the appropriate level of sensitivity. It is possible that these factors could be mitigated by reduced use of distribution through tied intermediaries and by more widespread development of outsourced claims management respectively.

3.59 However, in a narrower sense, the insurance industry does provide products that offer additional, extra-territorial cover (i.e. over and above those minimums set down within M3PL legislation to protect EU citizens in the event of an accident outside the country in which the insurance product was bought).



- (a) In motor insurance, insurers offer products whereby the same coverage provisions as would be applied at “home” are applied regardless of the accident location (e.g. UK insurers offer products that afford the same level of protection as that available in the UK in the event of an accident, regardless of that accident’s geographic location within the EU). Such cover can be more narrowly time-limited than the normal contract length (e.g. to, say, 21 days — sufficient for a holiday or a long business trip).
 - (b) This form of product extension relates to someone’s own car. Another form with a cross-border extension would be buying insurance cover in one’s “home” market dealing with the use of hire cars, rather than being reliant upon rental car cover. The former would maintain the individual’s cover under his or her home jurisdiction rather than being reliant on “visiting victim” status (with the potential for a mismatch between the scope and value of compensation between expectations based upon “home” norms against the reality of what applies “away”). It was noted at the CEA Motor Insurance Conference (19th March 2009, Brussels) that such products currently exist (e.g. in Spain) but are not widespread.
 - (c) In home insurance, some insurers offer cover on holiday homes as an add-on to the basic cover. However, the scope of this may be geographically limited — a UK insurer noted that it limited such cover to just the following countries: France, Spain, Portugal and Ireland. These are the most common countries for UK citizens to have second homes; as such, it is likely to be sufficiently worthwhile the insurer investigating the local market idiosyncrasies in order to make this product extension worthwhile. Someone buying a second home somewhere more “exotic” would have a more limited choice (but would be — presumably — able to buy the insurance locally).
 - (d) Similarly, insurers may offer cover under home contents policies on specified, transportable personal possessions when these are taken out of the country.
- 3.60 However, many insurers are reluctant — as a matter of course — to incorporate such offerings into their product line. Some of those insurers with extensive networks outside their domestic market may simply prefer to hand over such business to the local office. Finally, our interviews indicate that a number of insurers would refuse to offer M3PL on such a basis — in particular, the claims management is seen as too complex and too sensitive: it requires a local touch to be cost effective. These insurers believe that it would not be cost effective to offer such a policy in the normal course.
- 3.61 Similarly, for products such as motor and home insurance, many product features will be common across the various countries in which a specific firm operates. For example, a firm may seek to gather the same variables about customers in each market in which it operates. One leading insurer that we interviewed confirmed this intuition explicitly — it has a centre of excellence in price optimisation of motor insurance that applies to all of its European operations (although it does not have a permanent presence in all EU national markets). The price calculation model that it uses has mostly (but not exclusively) common components across all of these markets.



Increasing the Scale of Cross-border Activity

3.62 In order to promote substantially greater cross-border trade, we believe that the following merits attention:

- Increased availability of the statistical data necessary to populate the underwriting models of insurers. As noted above, these models vary from insurer to insurer, and also from country to country. To illustrate the problem, consider that the availability of data in Country A in order to promote greater traffic of incoming trade on a FPS basis may be substantially greater than that deemed necessary by its own insurers. If Country A is small, this may simply reflect the limitations this can impose upon the segmentation of risk. However, the collection of additional data could potentially be costly. Given that the benefits of cross-border trade remain for the most part small, and that other obstacles to its growth would remain, it may not be initiated by the market. Any interaction with the Insurance Block Exemption Regulation (Regulation (EC) No 358/2003, currently under review) would also require consideration in this context.²⁸

Geospatial data, robust national vehicle databases, access to driving licence records (coupled with greater standardisation in formats), floor area data and credit scoring were variously highlighted as areas where greater consistency in availability (and/or quality) would be welcomed.

- We have already touched upon the legislative diversity in Europe. In large part this is derived from fundamental differences in insurance contract law and civil law codes. Equally, compensation practice remains divergent, reflecting differing responsibilities between the insurance industry and the state (these are described more fully in the chapter of this study looking at the legislative context).

The Comité Européen des Assurances (CEA) has informed us that a key source of frustration for those insurers wishing to provide insurance services on a cross-border basis is the variety in the “General Good” provisions referred to above and, in addition, the difficulty in accessing what these provisions actually *are* in some (unnamed) Member States (e.g. because not available in English, German or French or otherwise not straight-forward to locate by the insurer directly). Whether this relates to some occasional breakdown in the communication process between home and host supervisors remains unclear.

- A reduction in the complexity and cost of cross-border claims management for insurers. This is far from an easily tractable problem. No matter how streamlined the processes might become, it may not provide the necessary reassurance to

²⁸ See Comité Européen des Assurances (CEA) comments on the European Commission's preliminary findings on the Block Exemption Regulation, Position Paper SMC-COMP-09-024, 2 June 2009.



consumers that cross-border claims management would not remain more fraught and more difficult than an in-border solution.

On the other hand, a shift in market practice towards greater use of the outsourcing of claims management away from the insurance companies towards specialists could provide a practical solution to the problems presented by the lack of a local presence.

Improving Cross-border Claim Settlement

- 3.63 As noted above, our data gathering indicates that just under 0.7 per cent of motor insurance (M3PL and motor comprehensive combined) is written on a FPS basis in the EU27, with about 1.6 per cent of property insurance (including commercial property) written under FPS.
- 3.64 Our survey and interviews provide a best estimate of the number of claims containing some cross-border dimension (i.e. including any situation where two, or more, jurisdictions are involved) in personal motor and home insurance to be less than one per cent of the total. At the CEA Motor Insurance Conference (held 19th March 2009), a speaker expressed the view that perhaps 1–2 per cent of motor insurance claims could have such a cross-border dimension. Even if this larger figure is accepted, the overall level remains small relative to the market as a whole (albeit, of course, highly significant for any individual policy-holder involved).
- 3.65 We have discussed previously the concerns that both consumers and insurers have concerning the matching of claims administration to the location of the policyholder. Insurers largely take the view that the cost to them of claims management and settlement process is more costly in a cross-border setting (by increasing the administrative cost, impairing the ability to negotiate effectively and by raising the likelihood — in motor insurance — of a fraudulent claim). In addition, the process is viewed as likely to be less satisfactory for the policy-holder.
- 3.66 Indeed, an advantage of branching over FPS is that it facilitates just such a local interface. An insurer with a branch in Germany considered it to be important to use German staff to interface with its German customers. Research had indicated that, first, Germans do not like to talk about insurance (it's on a par with discussing tax returns) and, second, tend to see foreign products as inherently inferior to German ones. Notwithstanding this, a large part of the claims handling process is outside of Germany, but this is not apparent to the German customers.
- 3.67 However, a significant majority of the insurers expressing a view ruled out the off-shoring of claims management (i.e. whereby, say, an Austrian insurer sells a policy to an Austrian located in Austria but with claims management handled from a country with lower wage costs). Of those insurers who have off-shored many had only moved certain back-office aspects (such as basic data processing) offshore — customer-facing operations remained in-country.



3.68 The Rome II initiative is aimed at improving clarity over cross-border settlement processes — however, the insurers expressing a view remain unclear about this. In terms of the European Parliament initiative that “visiting victims” be able to take personal injury claims to the country of their normal residence — a number of individual insurers accepted the idea that this might simplify the experience for consumers but there was some concern that this would be an expensive solution for the insurance industry itself. There was very little support (and some voices of strong opposition) to the concept of a European body aimed at mediating a “fair” level of compensation for personal injury claims; in part, no doubt, this is due to considerable uncertainty as to how such a level might be determined.

Mechanisms for potential improvement

3.69 A number of potential mechanisms have been suggested:

- Improved awareness of consumer rights (e.g. through factsheets).
- Improved, or more consistent, access to Alternative Dispute Resolution (ADR).
- The harmonisation of EU consumer disclosure obligations and other consumer laws (i.e. common law of misrepresentation and unfair contracts regime, etc)
- Improved relationships between the claims representatives and the company.
- The harmonisation of claims handling procedures and standards (e.g. compensation time limits and improved enforcement) in order to reduce consumer uncertainty.
- Amendments to data protection rules to enable the improved exchange of information about fraud (a reduction in the perceived risk should streamline the process for insurers).

3.70 In addition, to the extent that improvement in cross-border claims management processes would reduce cost (directly or else through improved customer retention), the industry has a pecuniary incentive to take action independently. To some extent, this overlaps with existing efforts to reduce the time spent on claims administration. However, for those insurers with extensive cross-border interests, it could involve the improved sharing of know-how and the implementation of common IT platforms (to reduce the re-input of data and documents, waiting time, etc).



4 UNDERSTANDING INSURANCE PREMIUMS

- 4.1 This section looks at the basis of insurance pricing and reviews the factors that exert an influence on the level of premiums in motor and household insurance.

The Basis of Insurance Pricing

- 4.2 Insurance is an institutional means of transferring the risk of a potential loss from one party (the insured or policyholder) to another (the insurer). This is in exchange for an insurance premium. These risks need to be diversifiable — to facilitate the pooling of individual risks (this can be an issue in the case of natural catastrophes, as we briefly discuss in Section 7). The risks must also be quantifiable.
- 4.3 For these reasons, most products and for most companies, non-life insurance product pricing is very heavily influenced by actuarial methods. The UK's Faculty of and Institute of Actuaries identified five operational models for the pricing of insurance:²⁹
- (a) **Tariff.** This is where the regulator sets the rate, or at least exerts significant influence over the price. This model no longer applies in any EU27 non-life insurance markets.
 - (b) **Qualitative.** Here, the price is not determined exclusively through quantitative analysis due to the data being incomplete or imperfect. A market participant has clearly indicated to us that, in general, data availability is not an issue in the EU27 non-life insurance markets — rather it is a question of the management of available data.
 - (c) **Cost plus.** In this setting, statistical modelling is used to determine cost (i.e. there is data sufficiency). Some uplift is then applied representing a return to the insurer on capital employed. The General Insurance Premium Rating Issues Working Party (GRIP) report notes that this is the prevalent approach in “some” (unspecified) European motor insurance markets. It remains the approach of some individual insurers in more “developed” markets, including for example some firms selling household insurance in the UK. In terms of establishing the technical (cost) element, there are a number of potential approaches. The standard approach involves some form of generalised linear models for modelling the relative claims experience of different market segments. These allow the regression of selected variables across a range of different model structures.
 - (d) **Distribution.** The “cost plus” model we have described above is not appropriate for highly competitive markets or markets where product is being sold in a multi-channel distribution model (e.g. through agents, independent brokers, directly). In these cases, the calculation of the premium is less directly dependent upon the technical

²⁹ The General Insurance Premium Rating Issues Working Party (GRIP) published a report on the role of actuaries in pricing in January 2007.



cost calculation (but is not wholly independent of it). Instead, there is some degree of price optimisation across different distribution channels or different customer types in order to maximise sales and/or expected profitability. Discounts and add-ons (such as, say, legal expenses cover), where relevant, are incorporated into the price-setting decision.

- (e) Industrial. This is the most recent development, characterised by the GRIP report as being the “domain of only large personal lines” insurers operating across multiple products and brands, and is in essence an extension of the distribution model. The GRIP report indicates that this approach and the distribution model are the main models used in rate development in the UK market.

4.4 It follows from the above that an understanding of the level of premiums requires an understanding of the underlying actuarial factors, but can not be limited to that — there is a need to acknowledge differences in operating costs, distribution model and profitability. This Section, then, should be treated as a primer for those less familiar with the mechanics of motor and home insurance before moving on to Sections 6, 7 and 8.

4.5 We have looked at variables falling under the following broad categories:

Intrinsic factors

- (a) The frequency of claims
- (b) The average value of claims
- (c) A discount factor to reflect the payment profile of claim provisions (i.e. this can be very important with regards to personal injury claims in motor insurance, where payments may extend over several years).

Other factors

- (d) The operating costs of the insurer (which will be partly influenced by claim frequency), including a capital charge to reflect the insurer’s cost of capital and other factors that will influence cost levels (such as distribution models)
- (e) The competitiveness of the local insurance market, and
- (f) Taxes.



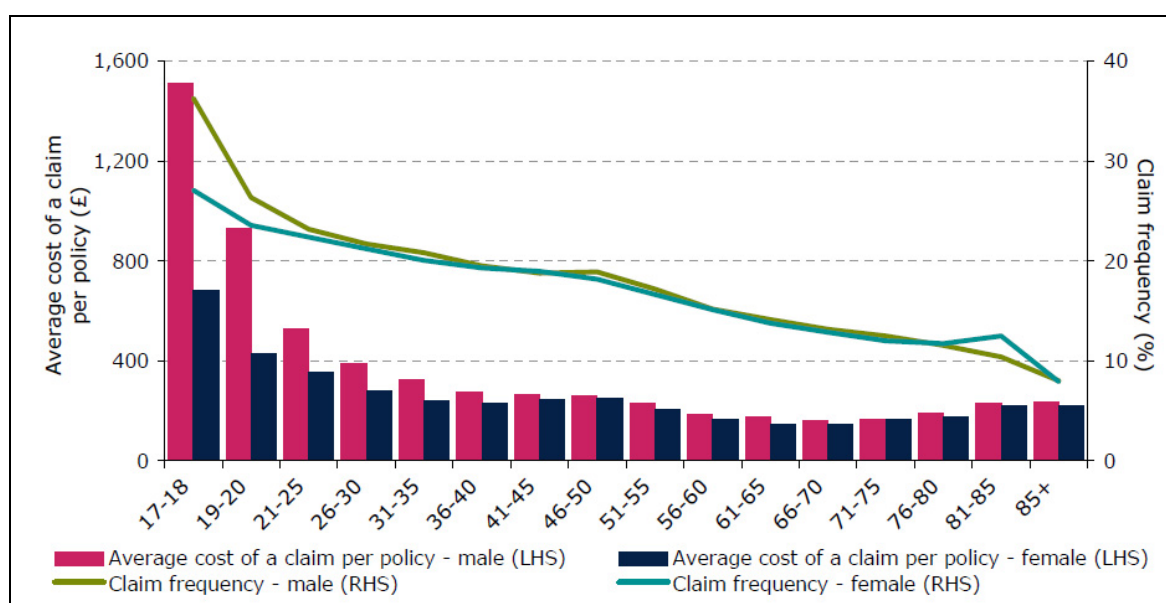
4.6 Many of the factors affecting claim frequency and value vary significantly between motor and property insurance. We have utilised a number of sources in order both to establish the main factors as listed above and the component drivers within each grouping.³⁰

Claim Frequency and Value in Motor Insurance

Personal characteristics of the driver

4.7 A number of personal characteristics can influence premium levels. The age and sex of the driver may exert a significant influence on average claim frequency and claim value. The figure below illustrates the point with regards to the UK.

Figure 4.1: Average claim cost and frequency by age and sex in the UK



Source: Association of British Insurers

4.8 Our mystery shopping exercise (see Section 8) confirmed these results for the UK (and similar effects elsewhere). In particular, the profiles that we tested including younger drivers resulted in a significant price difference favouring female over male drivers. Further, a profile with rather older driver (age 68) showed the opposite effect, i.e. the male driver benefitted from a lower quotation.

Gender

4.9 In the design of the individual insurance profiles, we therefore set out to gather information on male and female drivers with otherwise identical records. An important

³⁰ For example, Munich Re (2006), "Rating factors in use for private car insurance"; CEA (2006), "Property Insurance In Europe"; CEA (2007), "The European Motor Insurance Market"; and Swiss Re (2006), "European Motor Markets" have all been particularly useful.



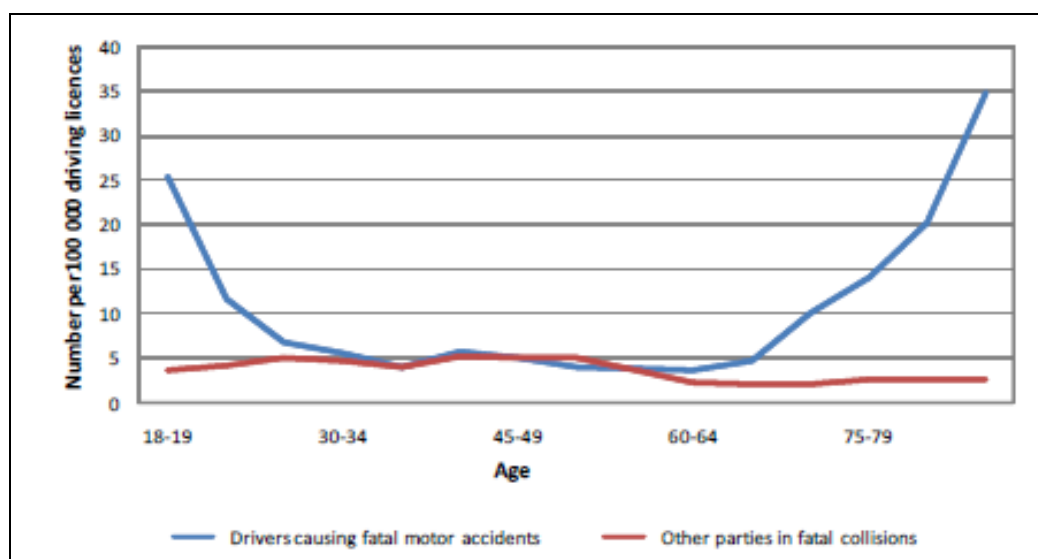
factor is whether differentiation between male and female drivers for the purposes of premium calculation is permissible or not.

- 4.10 In the last few years, unisex premium setting has become markedly more prevalent across the EU27 since the implementation of the Gender Directive. This is discussed in more detail in the next section on the legislative context, including a comparison with the situation in the USA.

Age and driver experience

- 4.11 Age (adjusted for the minimum age required in order to obtain a driving licence) is a natural proxy for the length of driving experience. The figure below illustrates that, in Finland at least, there is a significant correlation between this and the probability of a driver causing a fatal accident. Young drivers and those drivers who are post-retirement age are significantly more likely to cause a fatal accident.

Figure 4.2: Fatal motor accidents in Finland, 2002–2006



Source: CEA Road Safety Compendium (data from Finnish Motor Insurer's Compendium and Finnish Motor Vehicle Administration)

- 4.12 A related factor is that young (and particularly learner) drivers are often incorporated into someone else's insurance coverage.

Mileage

- 4.13 Naturally, there is a correlation between car use and the absolute probability of being involved in an accident. This relationship is unlikely to be linear, in that, like most mechanical skills, increased practice would be associated with increased proficiency.
- 4.14 In setting tariffs, most motor insurers will request some information on the nature of use (time of day and distance travelled), which can be cross-referenced to the occupation of the driver — where known — in particular, any association with increased distances



driven such as with a salesperson. For example, in an interview with a market participant it was indicated that that insurer used up to eleven different classification scales relating to mileage in its premium setting.

Fraud and uninsured drivers

- 4.15 Fraud pushes up premium levels. An ABI survey estimated that the cost of fraud could add up to £40 (€44) to average premium levels in the UK and so variation in prevalence of fraud between countries is likely to be an explanatory factor in differences in premiums.³¹ It has been further suggested by the UK insurance industry that current economic conditions have driven a significant increase (80 per cent, year-on-year) in fraudulent claims regarding motor and household policies.³²
- 4.16 The true prevalence of fraud is (unsurprisingly) not robustly documented. However, it is believed to vary significantly between countries (and indeed within countries, with an estimated 9.6 per cent of claims involving fraud in Campania in southern Italy against below one per cent in Piedmont in northern Italy).³³ A DG MARKT report details the number of vehicles that are uninsured across Europe in 2006 (with the exception of Malta and Slovenia).³⁴ These have been estimated in a variety of ways (in Belgium for example, it is calculated by comparing the accidents costs of the Belgian Guaranteed Fund and that of the whole insurance market) and the reliability and robustness of the data are likely to be equally variable.

Other influences on driver behaviour

Road safety

- 4.17 A mix of road safety measures, such as seatbelt wearing, day-time lights, winter tyres and provisions for mandatory safety equipment in a car, can influence (or at least is expected to influence) either accident rates or the severity of accidents or both.

Police control

- 4.18 The level of police control and enforcement is a critical additional factor — a culture of ignoring road safety measures (such as seatbelt laws) would render the legislative effort redundant.

³¹ <http://www.abi.org.uk/Newsreleases/viewNewsRelease.asp?nrId=14547>. Accessed 8 April 2009.

³² <http://www.telegraph.co.uk/finance/financetopics/financialcrisis/3949048/Families-turning-to-insurance-fraud-to-beat-credit-crunch.html>. Accessed 8 April 2009.

³³ ISVAP, "Indagine sul fenomeno della criminalità nel settore assicurativo. Elaborazioni dei dati per il 2008" (published 6 October 2009).

³⁴ MARKT/2508/06 (March 2006).



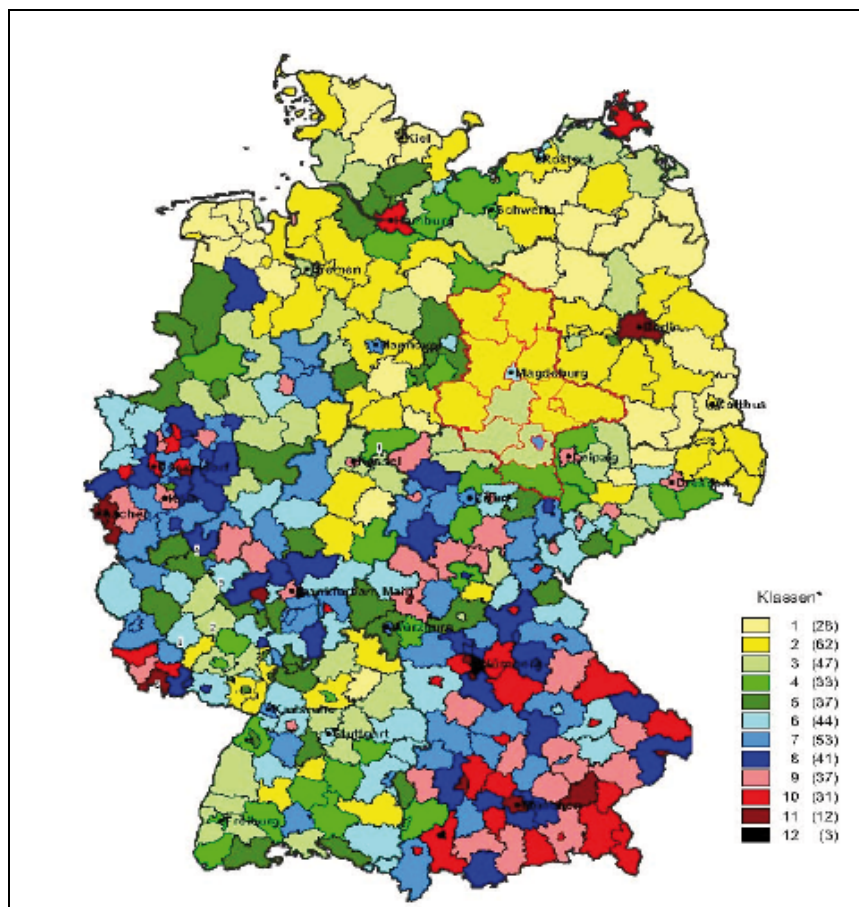
Insured item characteristics

4.19 The type (e.g. sports cars and motorbikes) influence driver behaviour and have, in any event, different safety characteristics (air bags have become standard).

Geographic factors

4.20 In Figure 4.3 below, shades of pink through to dark red represent the highest claims values in Germany with yellow representing the lowest values.

Figure 4.3: Regional variation in German motor insurance claims



Source: Gesamtverband der Deutschen Versicherungswirtschaft

4.21 The key explanatory influences cited by the GDV are:

- Traffic density (driven by urbanisation).
- Economic development (so that eastern Germany tends to experience lower claims than the west).
- Landscape (driven, say, by more mountainous regions in southern Germany).



Accidents

4.22 The factors that we have discussed so far indirectly or indirectly influence:

- The rate of accidents; and
- The conditional probability of bodily injury or fatality in the event of an accident.

Other claims

4.23 However, accidents are not the only source of claims for comprehensive forms of motor insurance, in particular:

- Theft of vehicles.
- Theft from vehicles.
- Accidental damage to a vehicle (i.e. damage caused to his or her own vehicle by the first party).
- Other damage (such as fire).

Average claim values

4.24 The average cost of a claim can vary significantly. We analyse this at greater length in our discussion of premiums and profitability in motor insurance. The value of a claim is directly related to:

- The cost of local medical care (and the extent of recourse from the health provider to the insured and the insurer); and
- The cost of car repair.

4.25 However, it is the degree of recourse that is perhaps most crucial. Indeed, the national insurance contract law in the country of registration exerts a very significant influence, by determining the scope of cover (such as the concept of the degree of protection for non-motorised road users), the limits of it (unlimited cover for M3PL is required in several European states) and norms regarding what manner of injury can be claimed for. With regards to this last point, Ken Oliphant (Institute for European Tort Law, Austrian Academy of Science, Vienna) has noted broader definitions of bodily injury (to include whiplash), increased claim rates by relatives of those directly involved in accidents and re-aligned tariffs in respect of non-pecuniary losses as drivers of increased claim values.³⁵ Again, we discuss this at greater length in the following chapter of this study.

³⁵ Speaker at CEA Motor Insurance Conference, 19th March 2009.



Claim Frequency and Value in Property Insurance

4.26 In property insurance, it is the characteristics of the insured property that are paramount — in particular location and re-build value. The fundamental role of the insured is to maintain this asset in good repair.

Location

4.27 Location influences a number of potential risks.

Fire

4.28 This is relevant to both structural buildings and contents cover.

Burglary

4.29 This is relevant only to contents cover.

Structural risks

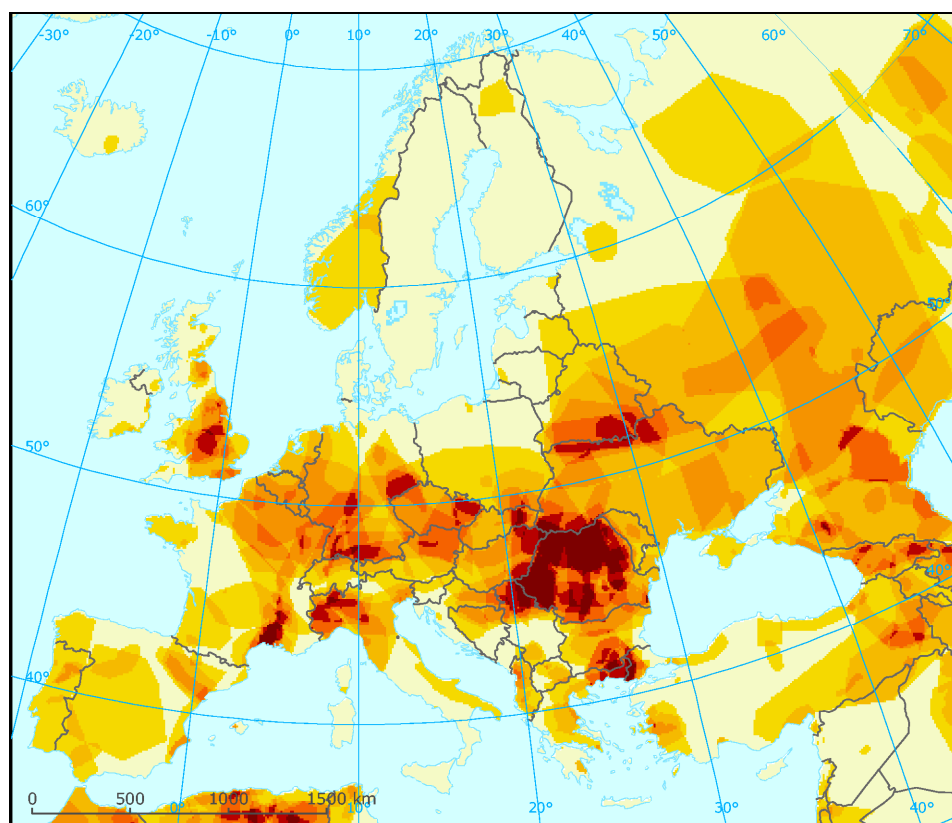
4.30 The external environment interacts with the property in a number of ways which affect the risk of structural damage to that property. In particular:

- (a) The type of soil upon which the property is built will affect the likelihood of structural damage to the fabric of the property due to subsidence. However, this risk will be co-determined with other factors, such as typical construction methods (e.g. the depth of foundations) and meteorological factors (e.g. dry weather may increase such risks). At present, we do not have a satisfactory proxy for this.
- (b) The weather and other natural hazards.

The treatment of natural hazards varies widely. It is often an optional cover and so may be excluded from policies. In some countries, however, it is either mandatory or even state-provided. However, storms and floods represent major risks in many European countries and north-eastern states of the USA. For example, the relative incidence of flooding in Europe is illustrated below.



Figure 4.4: Incidence of flooding in Europe, 1998–2008 (where darker means a greater incidence of floods)



Source: European Environment Agency based on data from Dartmouth Flood Observatory (<http://www.dartmouth.edu/~floods/>)

Re-build value

- 4.31 An important as a determinant of property insurance premiums is the rebuild value of the property. The re-build value will be linked to building trade wage costs and the cost of building materials, both of which vary between countries (and, of course, to some extent within countries).

Discount Factor

- 4.32 The timing of payment by the policyholder to the insurer can impact upon the price quoted (i.e. the lump sum payment at the beginning of the contract will be less than the sum of the payments under an otherwise identical contract where the payments are monthly).
- 4.33 More importantly, as noted earlier in this section, where the payment of claims is likely to extend over a number of years, the insurer will provision against these anticipated future payments. The lower the discount factor, the greater the accrual that is made.



Operating Expenditure

- 4.34 The operating expenditure of the insurance industry can be measured directly through the expense ratio (measuring operating costs as a proportion of premiums earned).
- 4.35 However, we also wish to unpick further the drivers of variance in operating costs across countries. We have identified the following variables as likely to be particularly important.

The distribution channel mix

- 4.36 The business model adopted for distribution is also a crucial differentiating factor, both between companies and between countries. To illustrate, a market participant informed us in a stakeholder interview that the sales cost of a policy sold through an agent or broker could be as much as 15–20 per cent of the tariff value. The cost for a policy sold through the direct channel is much lower.

Churn in policies

- 4.37 The likelihood of renewal by a policyholder will influence costs, in that it is natural to expect that it is less expensive to retain an existing customer than secure a new one (i.e. the saving in reduced marketing expenses should exceed any reduction in tariff or additional operating spend in other areas to achieve the quality of service necessary to keep the client).

Frequency of claims per policyholder

- 4.38 Similarly, the cost of claims management will be influenced by the frequency (per policy) of a claim being made.

Local productivity

- 4.39 Operating costs may vary due to fundamental differences in productivity. We have collected data assessing labour productivity. This is not specific to the insurance sector.

Solvency and capital ratios

- 4.40 Simply put, a requirement to hold an increased level of capital will increase the cost of capital.

Investment profitability

- 4.41 Investment performance can have a marked influence on premiums set. It is possible, particularly in a competitive market, for an insurer to set tariffs at or even below the economic level required to recover the costs of expected claims and achieve its required return through successful investment performance.



The Competitiveness of the Local Insurance Market

- 4.42 An operator will seek to recover its operating costs and a return on a number of variables can influence the competitiveness of the local market.

Concentration ratio and Herfindahl Index

- 4.43 Our literature review identified market structure as an important factor in determining whether international insurers participate in a given foreign market.³⁶ Therefore, as part of work on market structure, we have gathered data on the market shares of the leading operators in each segment. We have used this information to develop the so-called Concentration Ratio 5 (CR5) metric (simply the aggregate of the market shares of the five leading operators). This is described in Section 2.
- 4.44 Similarly, the Herfindahl index is a measure of the size of firms in relationship to the industry and is an indicator of the scope for competition among them. In broad terms an index below 1,000 indicates an un-concentrated industry, a score between 1,000 and 1,800 indicates moderate concentration, and anything above 1,800 indicates high concentration. The Herfindahl Index is based on the sum of the squares of the market shares of the largest firms when these are expressed as percentages.³⁷
- 4.45 Both the CR5 and the Herfindahl Index assume greater concentration decreases competitiveness, all else being equal. The distribution channel mix also has a critical indirect impact — a market where the predominant distribution model is one of tied agency will, all else being equal, be less competitive than one where the predominant business model is distribution through independent intermediaries.

Openness

- 4.46 For markets that are not competitive, removing trade barriers would significantly improve the desirability of those countries as host markets. This is difficult to model in a definitive way. However, attempts have been made — for example, Freedom House constructs an index of economic freedom based on the following ten indicators: business freedom, trade freedom, fiscal freedom, government size, monetary freedom, investment freedom, financial freedom, property rights, freedom from corruption and labour freedom

³⁶ See for example, You-Luen Ma and Pope (2003): the determinants of international insurers' participation in foreign non-life markets

³⁷ It is expressed mathematically as $H = \sum_{i=1}^N s_i^2$, where s_i is the market share of individual firm i and N is the total number of firms used in the calculation of the index.



GDP per capita

4.47 The relative strength of demand for insurance products is likely to be influenced by income levels.

Taxes

4.48 There is significant variation between different Member States in the tax treatment of insurance premiums. For example, in Denmark a tax of 42.9 per cent of the motor insurance premium (excluding tax) is levied. By contrast, in many Member States — for example, Sweden — there are no specific taxes on insurance premiums.³⁸

Other Aspects of Insurance Products

4.49 We started this section by noting that risks need to be quantifiable and diversifiable for insurance markets to function. This can be complicated in two ways:

(a) By adverse selection, where, pre-contract, the insured retains private information not disclosed to the insurer. Increased segmentation of risks to avoid cross-subsidisation of high risks by low risks is one way of countering this. Adverse selection assumes that high-risk individuals seek out more insurance than lower risk individuals: in fact, it may be the most risk-averse who do so.

(b) By moral hazard, whereby (post-contract) the insured becomes more careless because he or she now has insurance. Segmentation can help here too (by providing price incentives to foster good behaviour — e.g. through bonus malus systems). The other classic approach is to have a deductible such that the first portion of a claim's value falls onto the insured.

4.50 The degree of segmentation — i.e. the extent to which the factors described in this section are utilised — varies from firm to firm, from country to country and over time. For example, the UK motor insurance market has been liberalised longer than most and has developed complex models with perhaps 20–25 variables to describe risk and exposure. Post-liberalisation in Germany, insurers experimented with a number of variables to better classify risk.³⁹ A similar process is underway in those CEE Member States where liberalisation of tariffs is a recent event.

4.51 However, this does not imply that there will be an evolution towards the UK's level of complexity. Consumers may want a fast deal or may have different cultural approaches to the sharing of private information limiting what the insurer may ask. Segmentation may

³⁸ We have used the CEA's "Indirect taxation on insurance contracts in Europe", published in March 2009. This is published annually and details the applicable taxes and other levies across all forms of insurance.

³⁹ An excellent paper by R Schwarze and T Wein, "Is the Market Classification of Risk Always Efficient?" (ESRC Discussion Paper 25, February 2005) describes this process. They found that innovators in classification achieved (short-lived) rents by more efficiently segmenting risk.



also be limited by market size and the availability of data on the population as a whole (as opposed to the insurer's portfolio of policyholders).



5 LEGISLATIVE CONTEXT

Introduction

- 5.1 The Single Insurance Market (SIM) is founded on the principle that the same rules should apply to all insurance market participants, irrespective of country of origin. A process of liberalisation and deregulation of national insurance markets has been put into effect with the objective of creating the SIM.
- 5.2 The legal framework of the SIM is based on the freedoms established by the Treaty of Rome — free movement of capital, freedom of establishment and freedom to provide services.

Non-life Insurance Directives

- 5.3 Three generations of non-life insurance directives established a single licence supervisory regime, which allows insurers to operate in any Member State under the freedom of establishment or the free provision of services.⁴⁰ Insurers are supervised by the competent authority of the Member State in which they are licensed. The Directives also introduced specific provisions aimed at ensuring the protection of victims and policyholders. The following sections discuss each of the generations of insurance directives in more detail, with specific focus on the non-life directives.

First non-life insurance Directive 73/236/EEC

- 5.4 The first non-life Directive was adopted in 1973 and realised the freedom of establishment. The Directive enabled companies to establish branches, offices or agencies in other Member States on the basis of the Host Country Control principle. However, this principle allowed host nations to subject foreign companies to more restrictive conditions such that its impact on creating an integrated market was limited. Therefore, even following the first generation Directives cross-border financial activity was more an exception than a rule.

Second non-life insurance Directive 88/357/EEC

- 5.5 This Directive adopted in 1988 enabled companies to operate in other Member States without first having to establish a branch in that country and thereby realised free provision of services. However, many restrictions remained because of a perceived need to protect consumers through government intervention whilst regulation differed also according to the nature of the business (private or company) and between the size of the potential risks. Therefore, liberalisation and deregulation occurred only in sectors in which there were little need to protect consumers (e.g. property insurance for large businesses).

⁴⁰ Directive 73/236/EEC, Directive 88/357/EEC and Directive 92/49/EEC



Third non-life insurance Directive 92/49/EEC

- 5.6 The Third Non-life Directive of 1992 sought to limit state intervention in the insurance market as far as possible and create the SIM. To these ends, the Directive consisted of several key elements:
- (a) The Single European Licence — this allows all European companies to operate throughout the EU, both with regards to the establishment of companies and conducting transactions.
 - (b) The Home Country Control — by which insurers are only subjected to the control of their home authorities.
 - (c) Solvency supervision — this abolished prior control of insurance premium and policy conditions for all insurance risks and policy holders and subjects any insurance company based in the EU to financial control.
 - (d) Abolition of price and product regulations.
 - (e) Establishment of the principle of minimum harmonisation.
- 5.7 It has been argued that the most important of these elements was the establishment of Home Country Control since it helped to overcome some reservations held by insurance companies in regard to the control of host countries over any subsidiary branches.⁴¹ Home Country Control ensured that the companies need to be licensed and supervised only by their home country.

European Case Law

- 5.8 European case law in the field of motor insurance has been established by a number of cases brought before the European Court of Justice (ECJ). Three such cases are described below.

ECJ Case C-346/02 and C-347/02

- 5.9 National rules of France and Luxembourg require insurance companies to integrate a system into motor-vehicle insurance contracts under which policyholders are placed on a premium scale according to their accident record. The Commission considered these bonus malus systems to be contrary to the Council Directive 92/49/EEC since they result in the establishment of systems having automatic and compulsory effects on premium rates and so brought infringement proceedings against those two Member States.

⁴¹ "Financial integration within the European Union: Towards a single market for insurance", Beckman, R., Eppendorfer, C. and Neimke, M., MPRA Paper No. 5280, 2002 available at: <http://mprapaper.uni-muenchen.de/5280>



- 5.10 The ECJ declared that the bonus malus systems established in France and Luxembourg for motor vehicle insurance contracts are not unlawful. In particular, it found that the systems are not contrary to the freedom to set premium rates that is established by Community legislation.
- 5.11 The rationale for this view is that whilst the Court finds that the bonus malus systems have effects on changes in the amount of premiums, they nevertheless do not result in the direct setting of premium rates by the State, since insurance companies remain free to set the amount of the basic premium. Neither the French nor the Luxembourg bonus malus scheme can therefore be equated with a system of approving premium rates that is contrary to the principle of freedom to set rates.

ECJ Case C-537/03

- 5.12 The ECJ found that a system of compulsory motor vehicle insurance which refuses or limits, in a disproportionate manner, compensation for a passenger who has contributed to the occurrence of the damage or injury infringes community law. Further, the fact that the passenger is the owner of the vehicle the driver of which caused the accident is irrelevant

ECJ Case C-518/06

- 5.13 Italy imposes an obligation to contract on all insurers operating in the field of M3PL insurance. The regulator may impose penalties in the event of infringement of that obligation. The Commission took the view that this represented a restriction on the freedom of establishment and the freedom to provide services and so brought a case against Italy at the ECJ.
- 5.14 The ECJ ruled that the obligation to contract restricts the freedom of establishment and the freedom to provide services. However, the ECJ accepted Italy's claim that the restriction may be justified where it serves overriding requirements relating to the public interest, is suitable for securing the attainment of the objective which it pursues and does not go beyond what is necessary in order to attain it. Ensuring that such victims will be adequately compensated may be a justification for a restriction on the above-mentioned freedoms.

Motor Insurance Directives

- 5.15 Motor vehicle liability insurance was excluded from the scope of the Second Non-life Insurance Directive (88/357/EEC) in regard to freedom of provision because of its special character and societal importance. These provisions were realised two years later through Directive 90/618/EEC. This Directive also introduced the principle of reciprocity to non-EU countries for all non-life insurance, meaning that an insurer based in a non-Member country could establish a presence and provide his services in a Member State only if companies based in the Member State could establish themselves and provide services in the non-Member country. Switzerland has concluded such an agreement with the EU whilst Liechtenstein, a member of the EEA, have concluded an agreement based



on reciprocity with Switzerland so as to ensure that long-established Swiss agencies operating in Liechtenstein face the same conditions as EEA agencies.

- 5.16 The special character of motor insurance is again apparent from the fact that five Motor Insurance Directives have been implemented in the last 36 years, with the most recent being published in June 2005. Each of the Directives seeks to establish common motor insurance standards, create a single European market for motor insurance and so enable free movement of motor vehicles throughout the EU.

First Motor Insurance Directive (72/166/EEC and 72/430/EEC)

- 5.17 The First Motor Insurance Directive required Member States to abolish border checks of liability insurance on vehicles from another Member State, or a third country. Random checks are permitted, however.
- 5.18 The Directive also stated that Member States must take measures to ensure that vehicles registered within their territory are covered by liability insurance. This insurance should cover accidents occurring within the Member State in which the vehicle is normally located and in other Member States. For incidents occurring in another Member State, the insurance bureau of the state in which the incident occurred should obtain insurance information from the state in which the vehicle is registered.
- 5.19 Member States may prevent future entry to vehicles from third countries if that vehicle had previously been involved in an accident and the driver was unable to cover the cost of the injury or damage he or she caused. Vehicles normally based in the territory of a third country should be provided with a valid green card (an international certificate of insurance issued on behalf of a national bureau) or with a certificate of frontier insurance establishing that the vehicle is insured.

Second Motor Insurance Directive (84/5/EEC)

- 5.20 The Second Insurance Directive clarified that compulsory third-party insurance should cover both damage to property and injury and set minimum amounts that the insurance must cover of 350,000 ECU per person for personal injury and 100,000 ECU per claim for damage to property. Alternatively, Member States could set a minimum of 500,000 ECU per claim for personal damages, and of 600,000 ECU in total per claim.
- 5.21 Member States were also required to establish a body to provide compensation, the value of which must be at least the limit of the insurance obligation for personal injury or property damage. In cases involving vehicles that were stolen or seized by violence, the Member State could legislate that compensation would be provided by this body rather than the insurer.
- 5.22 Finally, the Directive established that members of the family of the individual liable under civil law in the event of an accident and whose liability is covered by insurance would not



be excluded from claiming compensation from the insurer for any personal injuries sustained in the accident.

Third Motor Insurance Directive (90/232/EEC)

5.23 This Directive required Member States to ensure that the compulsory motor insurance policies cover, on the basis of a single premium, the entire European Community. It also states that the policy would guarantee cover at the greater of the levels required in the country in which an accident occurs or the country in which the vehicle is registered.

5.24 The Directive also states that where a dispute occurs between an insurer and the national compensation body regarding which should pay for a particular claim, the Member State must designate one of these parties to pay compensation without delay.

Fourth Motor Insurance Directive (2000/26/EC)

5.25 The Fourth Motor Insurance Directive established a mechanism to increase the speed at which claims are settled for accidents in a given Member State involving a victim who is a citizen of another Member State (“visiting victims”). This complements the first three motor insurance Directives which ensured that local victims would be compensated for accidents in which the other party is from another Member State.

5.26 The Directive also required insurance companies to designate an individual as a local representative in each Member State other than the State in which they received their official authorisation. This aimed to ensure that a victim will be able to consult with a representative of the insurer in their own language and Member State. The choice of representative is at the discretion of the insurance company and Member States cannot restrict the choice. The representative should be resident or established in the relevant Member State and is responsible for handling and settling claims arising from accidents occurring in that Member State. The claims representative may work for any number of insurers.

5.27 Another innovation of the Fourth Motor Insurance Directive is that Member States must establish an information centre with the responsibility to:

(a) Keep a register of the registration numbers of motor vehicles, the numbers of the insurance policies covering the use of those vehicles, the number of the green card or frontier insurance policy, insurance undertakings covering the use of vehicles etc;

(b) Coordinate the compilation and dissemination of this information; and

(c) Assist entitled persons in gaining access to the above information.

5.28 The Directive also required Member States to establish bodies responsible for paying compensation to victims. These bodies would settle claims where the insurer does not have a local claims representative or does not deal with the case sufficiently quickly. Victims can present a case to the compensation body in their own Member State but



cannot do so if they have taken direct legal action against the insurer. Victims may also file a claim with the compensation body if it is not possible to identify the other vehicle or if it is not possible to identify the insurer within two months of the accident.

- 5.29 None of these measures altered existing rules on liability or jurisdiction. In particular, where an accident occurs, the law of the country in which it occurred will continue to apply and if there is a dispute over liability for an accident and the case is referred to court, it will be held in the country in which the accident occurred and under the laws of that country.

Fifth Motor Insurance Directive (2005/14/EC)

- 5.30 The Fifth Motor Insurance Directive revised and updated its predecessors so as to:
- (a) Update and improve the protection of victims of accidents by compulsory insurance;
 - (b) Ensure increased convergence between Member States with regard to the application and interpretation of the Motor Insurance Directives; and
 - (c) Assist in the development of a single market by providing solutions to common problems.
- 5.31 The Directive revised the minimum level at which an insurer can set compensation cover to €1,000,000 per victim in the case of personal injury or €5,000,000 per claim and €1,000,000 per claim in the case of damage to property. These minimum amounts will be revised every five years in line with movements in the HICP. Under the Directive, cyclists and pedestrians are listed as special categories of accident victims and compulsory motor insurance must now cover injury to these groups as well as to other non-motorised road users.
- 5.32 To assist in the development of a single competitive market, the Directive sought to make it easier for consumers to switch insurers by obliging all insurers to provide consumers with a statement of their claims record at the end of their contract.
- 5.33 It is noted that the Motor Insurance Directive (2009/103/EC) is a codified version and repeals all five of the motor insurance directives described above.

Limitations of liberalisation and deregulation

- 5.34 The Green Paper on Retail Financial Services in the Single Market notes that integration and competition in retail financial services, including insurance, has not reached its full potential. The three generations of Insurance Directives established the legislative framework to allow consumers to purchase insurance from providers located in another Member State. However, possibilities for integration are restricted by legal and economic barriers, such as the differing regulatory and consumer protection frameworks and fragmented infrastructures, as well as consumer preferences towards local offerings.



Supply-side

- 5.35 The most significant remaining legal obstacle is insurance contract law which remains national (i.e. there is no EU-level harmonisation). The rules provide that, in general, the insurance contract will be subject to the laws of the Member State in which the consumer is located. This is designed to increase consumer confidence in dealing with a foreign insurer and to ensure that a consumer is protected to the same extent regardless of the company with which he has an insurance contract. Given this, it is costly for insurers to conduct cross-border transactions since they must research the local legal framework and this could restrict the volume of cross-border transactions.
- 5.36 A second legal barrier concerns the so-called public interest clause (or “general good” principle) which states that a Member State may refuse market access to a new local or foreign insurer, or disallow distribution of a new insurance product, if the allowance of such events is perceived to be against public interest. The difficulty here is that there is no common interpretation of the term “public interest” and hence it is possible that the clause could be misused so as to restrict competition.⁴²
- 5.37 On the supply side, one remaining barrier might be the unavoidable costs and difficulties of establishing a presence in another Member State. These costs would include researching the local laws, culture and market conditions, staff recruitment and marketing. Market research is likely to comprise a substantial proportion of set-up costs and would include research to assess the most common distribution channels, the characteristics of the country in terms of, say, road traffic accidents per 1000 of population, premiums charged by other insurers and so on.
- 5.38 Perhaps the most fundamental barrier on the demand side of the market is that of consumer confidence. Consumers, especially individuals, are risk-averse in their insurance decisions since their insurance contract is one based on trust. The consumer must trust that the insurer will honour his obligations and hence it is to some extent inevitable that consumers would be more cautious in dealing with a new foreign entrant than a company that has been in the country for decades. The difficulty would be amplified for more complex insurance products of which the consumer has limited knowledge.

Demand-side

- 5.39 The impact of such barriers is evidenced in the Eurobarometer survey which suggests that just 2 per cent of EU consumers currently hold a motor insurance policy with an insurer based in another Member State. Our analysis of cross-border activity in the previous Section indicates that the true figure is lower.

⁴² DG Internal Market, Single Market News, Special feature – No 11 (March 1998), “Liberalisation of Insurance in the Single Market Update and Questions”



- 5.40 Further, the Green Paper notes that in the majority of markets domestic insurance companies account for more than 90 per cent of total premium income. It appears unlikely that there will be a significant increase in cross-border activity in the near future. Indeed, a Eurobarometer survey found that only 4 per cent of consumers would consider purchasing motor insurance from a firm located in another Member State within the next five years.⁴³
- 5.41 Price differentials are likely to remain even within the SIM. This is partly due to differences in risk profiles between countries, partly due to the fact that the market is not perfectly competitive (indeed, markets remain fundamentally national) and partly because of differences in national legislation (for instance, differences between Member State's M3PL insurance in regard to the required level of damages to be paid to victims of road traffic accidents).

The Green Card System

- 5.42 The Green Card system aims to ensure that victims of road traffic accidents will receive compensation for their injuries or damage to their vehicle irrespective of whether the individual responsible is from their own country or another country. The system also ensures that motorists do not need to purchase insurance at each border they cross. At present there are 45 participating countries.⁴⁴
- 5.43 Each participating country has established a Green Card Bureau which has the responsibility to handle and settle claims arising from accidents caused by non-domestic motorists and guarantees the Green Cards (certificates of motor insurance) issued to policyholders by the Bureau's member insurance companies.
- 5.44 The Green Card is not an essential document, however. Indeed, motorists from 32 of the countries participating in the scheme do not require a Green Card to visit any of the other 32 countries since the registration plate of these countries signifies to the other countries that the vehicle is insured to cover at least M3PL. These countries are the EU27, Andorra, Croatia, Iceland, Norway, and Switzerland.

Hague Convention

- 5.45 The Hague Convention of 4 May 1971 on the Law Applicable to Traffic Accidents (the "Traffic Accidents Convention") introduced clear, precise and easily applicable rules to determine which law applies to a traffic accident involving individuals from more than one country. The most important rule introduced by the Convention is Article 3: in the event of a traffic accident, the applicable law is the internal law of the State where the accident occurred.

⁴³ Eurobarometer 230: Public Opinion in Europe on Financial Services, August 2005, page 39.

⁴⁴ See http://www.cobx.org/modules/national_bodies/, accessed 26 November 2009.



- 5.46 In addition to the main rule of the Convention, there are several subcategories of rules based on the registration of the vehicle and the normal residence of the persons involved. These rules apply in certain situations which are more connected with a different legal environment than that of the place of the accident. One example is that even if the victim does not have the right to take action against the culprit's insurer under the law of the country in which the accident occurred, he is entitled to do so if such a right exists in the national law governing the insurance contract.
- 5.47 The following countries are currently party to the Hague Convention on the Law applicable to Traffic Accidents of 1971:
- (a) Current EU Member States: Austria, Belgium, the Czech Republic, France, Latvia, Lithuania, Luxembourg, Netherlands, Poland, Slovakia, Slovenia and Spain (Portugal has signed but not ratified the instrument).⁴⁵
 - (b) Other countries: Belarus, Bosnia and Herzegovina, Croatia, The Former Yugoslav Republic of Macedonia, Montenegro, Serbia, and Switzerland.

Rome II

- 5.48 The Regulation on the 'law applicable to non-contractual obligations' (Rome II) aims to ensure that the courts in each Member State apply the same rules concerning the choice of law.⁴⁶ The Regulation applies to all non-contractual arrangements, including traffic accidents, and aims to both increase legal certainty with regard to the law that would apply in any given situation and facilitate mutual recognition of judgements across the EU. The Regulation is not restricted to EU Member States – the identified law is applied whether or not it is the law of a Member State.
- 5.49 The general principle of Rome II is that in the event of damage, the law which should be applied is the law of the country where the damage occurs. However, there are two major exceptions to this general rule. First, where both parties are resident in the same country on the date on which damage occurs, it is the law of that country that applies. Second, where both parties agree that the event is more closely connected with a different country it is the law of that country that applies. An example of a situation in which the second exception might apply would be where there is a pre-existing relation between the parties, such as a contract. This exception therefore provides for some freedom of choice within the Regulation, although the choice must be explicit or apparent from the circumstances and must not prejudice the rights of any third party. Further, it is important to note that Community law overrides the law of a non-EU country, chosen by the parties, when all the elements of the situation are located in one or more EU Member States.

⁴⁵ See http://www.hcch.net/index_en.php?act=states.details&sid=62, accessed 11 November 2009.

⁴⁶ Regulation (EC) No 864/2007 of the European Parliament and of the Council of 11 July 2007 on the law applicable to non-contractual obligations (Rome II), Official Journal of the European Union L 199/40, 31.7.2007



5.50 The Rome II Regulation was adopted on 11 July 2007 and from 11th January 2009 it has been applicable to all EU Member States with the exception of Denmark. It does not affect the application of international conventions governing non-contractual obligations to which one or more Member States are parties, such as the Hague Convention discussed above.

Transposition of Directives

5.51 It was adopted that Member states would transpose the Fifth Motor Insurance Directive by 11 June 2007. In February 2008, reasoned opinions were sent to Belgium, the Czech Republic, Greece, Ireland and Malta over their failure to implement the Fifth Motor Insurance Directive by the agreed date. These countries were given two months to amend their laws before the Commission would proceed with the issues to the ECJ. In June 2008 the Commission referred Greece to the ECJ.

5.52 Subsequently, Ireland transposed in the European Communities (Motor Insurance) Regulations 2008. The latest country reports indicate that Greece has not yet transposed the Fifth Directive and that transposition in Malta and Belgium is ongoing but is as yet incomplete.

USA perspective

5.53 The McCarron-Ferguson Act, adopted by the US Congress in 1945, declared that the States have responsibility for developing the legal framework within which insurers should operate and for regulating the industry. This system, unique amongst financial services, was confirmed by the Financial Modernization Act of 1999. State laws and regulations apply to all insurance companies providing services to consumers located within the State, whether the company is based in the same State or elsewhere. Companies selling insurance in a State other than that in which they are based are subject also to the regulations of their home State.

5.54 At the same time, however, the US Congress emphasised the importance of reforming State laws to allow insurance companies to compete more effectively in the national and international market. Indeed, it has been noted that “despite the persistence of the State regulatory system, its history demonstrates an increasing trend toward centralization, uniformity and cooperation.”⁴⁷

5.55 State legislatures are responsible for developing the broad policy for insurance regulation, reviewing and revising State laws and establishing and overseeing State insurance departments. The departments were typically created through a statute — and following

⁴⁷ Randall, S., Insurance Regulation Insurance Regulation in the United States: Regulatory Federalism and the National Association Of Insurance Commissioners, Florida State University Law Review, Vol. 26:625, 1999, page 627



establishment there are three main classes of communication from the department to the insurance industry:⁴⁸

- (a) Regulations — Regulations are designed to implement, interpret, or prescribe law or policy or to describe the organization, procedure, or practice requirements of an agency, including the amendment, repeal or suspension of an existing regulation. A regulation has the force of law and is binding on both the agency and anyone affected by the rule.
- (b) Statements of Policy — An announcement, to the public of a policy, by which an agency provides guidance to regulated entities as to the factors an agency will consider in deciding matters over which it has jurisdiction. Unlike statutes and regulations, statements of policy do not constitute a binding norm.
- (c) Department Notices — Communications to the insurance industry, or other affected regulatees or individuals, describing the Department's position on issues. While the documents in this category are not formal Statements of Policy, the substance is such that a standardized process and record of the Notice must be maintained.

5.56 Both insurance providers and agents/brokers must be licensed in all States in which they wish to conduct business. Since there are approximately 450 agents/brokers for each provider, it is a significantly more complex task to ensure that all agents/brokers are licensed in every State in which they operate than is the case for providers. Indeed, a substantial degree of communication between States is required so as to ensure that all States are aware of licensing applications, appointments and terminations of agents and brokers. To assist in this regard, the National Association of Insurance Commissioners (NAIC) established the National Insurance Producer Registry which is an electronic gateway linking State insurance departments and distributes important information electronically to each department.

5.57 The head of each State insurance department belongs to the NAIC. This voluntary organisation was established to coordinate activities, share scarce resources and further development of uniformity in insurance regulation. The Association has had a major impact upon the evolution of legislation and regulation as it has sought to fulfil its somewhat contradictory objectives of preserving regulation at State level and encouraging uniformity in regulation. Indeed, some of the duties performed by NAIC resemble those of federal regulators in other industries, and many commentators have argued that the Association actually performs, rather than merely supporting, regulatory functions.⁴⁹

⁴⁸ Taken from the website of the Insurance Department of the Commonwealth of Pennsylvania <http://www.ins.state.pa.us/ins/cwp/view.asp?a=1282&q=525003>, accessed 2 September 2009.

⁴⁹ See discussion in Randall, S., Insurance Regulation Insurance Regulation in the United States: Regulatory Federalism and the National Association Of Insurance Commissioners, Florida State University Law Review, Vol. 26:625, 1999, page 636



5.58 Whilst NAIC may appear to fulfil some regulatory roles, other features make it clear that it is not itself a regulator. For instance, NAIC lacks the power to sanction either State regulators or insurers and is seen by many in the industry as part of the industry.

Differences between individual USA States

5.59 Whilst there has been a trend toward increased consistency of State insurance laws, some important differences remain.

5.60 For property insurance, no State has a legal requirement for homeowners to have property insurance and policies are reasonably consistent across the country. One difference between States is that approximately half require providers to file proposed rates and seek approval before putting them into effect.⁵⁰ In many States regulators retain the right to refuse to accept rates if they find, on the basis of a competitive rating framework, that there is insufficient competition in the marketplace.

National insurance law

5.61 There are significant differences in legislation on personal injuries throughout the EU. These differences can be grouped into three main categories:

(a) Liability

The criteria used to determine liability for a road traffic accident differ between Member States, with some countries adopting strict liability rules and others employing fault-based rules. There are further differences between Member States within each of these broad categories.

(b) Assessment of damage award

Most Member States provide for full compensation of past, actual and future losses, both pecuniary and non-pecuniary, but the level of damages awarded may differ significantly.

(c) Limitation periods

The time period over which individuals may exercise their right in the event of personal injury varies from as little as three years to as much as 30 years. This may create a practical difficulty for individuals seeking to exercise their individual rights when the jurisdiction of a different Member State must be applied.

5.62 Table 5.1 below summarises the different liability regimes in Member States followed by a summary of the types of damages for which victims might be compensated. Table 5.2,

⁵⁰ State Insurance Regulation: History, Purpose and Structure, NAIC, available at www.naic.org/consumer_home.htm



Table 5.3, and Table 5.4 show the types of liability expenses covered by insurance across the EU27 and in the Selected US States.

- 5.63 Table 5.5 shows the minimum level of bodily injury and material damage liability insurance required in each EU Member State and the Selected USA States considered in this study. It is evident that the minimum required insurance levels in a number of Member States are below those required by the Fifth Motor Insurance Directive. Each of these States has outlined a path towards compliance with the Directive, with new minimum levels of liability insurance being introduced in 2009 and full compliance in 2012. This is summarised below.

**Table 5.1: Liability regimes in the EU27**

	Strict Liability (almost absolute)	Strict liability (relative)	Strict liability and comparative negligence	Strict liability and contributory negligence	Strict liability and full insurance coverage	Fault-based	Fault-based with reversal burden of proof
Austria	●	-	-	-	-	-	-
Belgium	-	-	-	-	-	-	●
Bulgaria	-	-	-	-	-	●	-
Cyprus	-	-	-	-	-	●	-
Czech Republic	-	●	-	-	-	-	-
Denmark	-	●	-	-	-	-	-
Estonia	-	●	-	-	-	-	-
Finland	-	-	●	-	-	-	-
France	●	-	-	-	-	-	-
Germany	-	-	●	-	-	-	-
Greece	-	-	●	-	-	-	-
Hungary	-	●	-	-	-	-	-
Ireland	-	-	-	-	-	●	-
Italy	-	●	-	-	-	-	-
Latvia	-	●	-	-	-	-	-
Lithuania	-	-	-	-	-	●	-
Luxembourg	-	●	-	-	-	-	-
Malta	-	-	-	-	-	●	-
Netherlands	-	●	-	-	-	-	-
Poland	-	●	-	-	-	-	-
Portugal	-	-	-	-	-	●	-
Romania	-	-	-	-	-	●	-
Slovakia	-	-	-	-	-	●	-
Slovenia	-	●	-	-	-	-	-
Spain	-	-	-	●	-	-	-
Sweden	-	-	-	-	●	-	-
United Kingdom	-	-	-	-	-	●	-

Source: DG MARKT (2008), "Compensation of victims of cross-border road traffic accidents in the EU: comparison of national practices, analysis of problems and evaluation of options for improving the position of cross-border victims"

The USA perspective

5.64 There are two main categories in terms of the type of insurance system within which motor insurers operate. A tort system is one in which it is necessary to determine which motorist was at fault in any collision. That individual and their insurance company are then responsible for all damages and claims. A no-fault system is one in which an insurance company will pay damages to their own customer, regardless of fault, up to a



specified limit. In this system, motorists typically have limited rights to take legal action compared with their rights under a tort system.

- 5.65 The State of Pennsylvania follows a tort system but allows individuals to choose between full tort and limited tort options. This choice determines the individual's right to compensation in the event that another party is responsible for injuries incurred by occupants of the individual's car in a road traffic accident. The full tort option does not restrict the individual's rights to financial compensation for injuries caused by other drivers whereas the limited tort option disallows the individual from claiming compensation.
- 5.66 The default of the New Jersey insurance system is that of no-fault, such that each motorist involved in a collision would seek damages from their own insurance company. However, State law allows drivers to reject the no-fault system and instead choose the tort system so as to allow them to take legal action for any injury incurred in a road traffic accident.
- 5.67 In the other Selected USA States, New York operates under a No-Fault approach and the rest apply the Tort system.

Categorisation of damage

- 5.68 The categories of damage covered vary between Member States.
- Pecuniary damages (primary victim): medical expenses and loss of income and/or pension and/ or profits are covered in almost all Member States; damage to health, legal expenses, property damage and training for new occupation are covered in some Member States
 - Non-pecuniary damages (primary victim): pain and suffering is covered in most Member States with a range of other impacts including disfigurement, enjoyment of life, loss of sexual function, social handicap, morale damage, mental disturbance/ suffering, disability, loss of amenity, breach of human right and immaterial damage being covered in a small number of countries.
 - Pecuniary damages/death (close relatives): funeral expenses and inherited claims of deceased are covered in the majority of Member States with considerable variation in coverage for medical expenses, loss of income, loss of maintenance, lost benefits, loss of property and incurred costs.
 - Non-pecuniary damages/death (close relatives): considerable variation between Member States in coverage for pain and suffering, grief due to loss of relative, suffering from witnessing, morale damages, mental suffering and loss of right to life.
 - Living with an injured person: limited coverage is available in only 12 Member States for at most two items from pain and suffering, loss of income, adaptation of home, costs of hospital visits, costs of care, non-pecuniary damages, loss of



support, loss of consortium, pecuniary losses, loss for extra work and mental suffering.

5.69 In order to illustrate some of the divergence between Member States, the tables below identifies the state of determination for pecuniary and non-pecuniary damages of the primary victim.

**Table 5.2: Pecuniary Damages (primary victim) in the EU27**

	Medical expenses	Loss of income and/or pension and/or profits	Damage to health	Legal expenses	Property damage	Training for new occupation
Austria	●	●	-	-	-	-
Belgium	●	●	-	-	-	-
Bulgaria	●	●	-	●	-	-
Cyprus	●	●	●	-	-	-
Czech Republic	●	●	-	●	-	-
Denmark	●	●	-	-	-	-
Estonia	●	●	-	-	-	-
Finland	●	●	-	-	-	-
France	●	●	-	-	-	-
Germany	●	●	-	-	-	-
Greece	●	●	-	-	-	-
Hungary	●	●	-	-	-	-
Ireland	●	●	-	-	●	-
Italy	●	●	-	-	-	-
Latvia	●	●	-	-	-	-
Lithuania	-	-	●	●	●	-
Luxembourg	-	●	-	●	-	-
Malta	-	●	-	●	-	-
Netherlands	●	●	●	-	●	-
Poland	●	●	-	-	-	●
Portugal	●	●	●	-	-	-
Romania	●	●	-	●	●	-
Slovakia	●	●	-	-	●	-
Slovenia	●	-	●	●	●	-
Spain	●	●	-	-	-	-
Sweden	●	●	-	-	-	-
United Kingdom	●	●	-	-	-	-

Source: DG MARKT (2008), "Compensation of victims of cross-border road traffic accidents in the EU: comparison of national practices, analysis of problems and evaluation of options for improving the position of cross-border victims"; Background Note to the European Parliament's committee on Legal Affairs (March 2007).



Table 5.3: Non-pecuniary Damages (primary victim) in the EU27

	Pain and suffering	Disfigurement	Enjoyment of life	Sexual function	Social handicap	Moral damages	Mental disturbance/suffering	Disability	Loss of amenity	Breach of human right	Immaterial damage
Austria	●	-	-	-	-	-	-	-	-	-	-
Belgium	●	●	●	●	-	-	-	-	-	-	-
Bulgaria	●	-	-	-	-	-	-	-	-	-	-
Cyprus	●	-	-	-	-	-	-	-	●	-	-
Czech Republic	●	-	-	-	●	-	-	-	-	-	-
Denmark	●	-	-	-	-	-	-	-	-	-	-
Estonia	●	-	-	-	-	●	-	-	-	-	-
Finland	●	-	-	-	-	-	●	●	-	-	-
France	-	-	-	-	-	-	-	-	●	●	●
Germany	●	●	-	-	-	-	-	-	●	-	-
Greece	●	-	-	-	-	-	-	-	-	-	-
Hungary	-	-	-	-	-	●	-	-	-	-	-
Ireland	●	-	-	-	-	-	-	-	-	-	-
Italy	●	-	●	-	-	●	-	-	-	-	-
Latvia	●	-	-	-	-	●	-	-	-	-	-
Lithuania	●	-	-	-	●	-	-	-	-	-	-
Luxembourg	●	●	-	-	-	-	-	-	-	●	-
Malta	-	-	-	-	-	-	-	-	-	-	-
Netherlands	●	-	-	-	-	-	-	-	-	-	-
Poland	●	-	-	-	-	-	-	-	-	-	-
Portugal	●	-	-	-	-	-	-	-	-	-	-
Romania	-	-	-	-	-	●	-	-	-	-	-
Slovakia	-	-	-	-	-	-	-	-	-	-	-
Slovenia	-	-	-	-	-	-	●	-	-	-	-
Spain	-	-	-	-	-	-	-	-	-	-	●
Sweden	●	-	-	-	-	-	-	-	●	-	-
United Kingdom	●	-	-	-	-	-	-	-	●	-	-

**Table 5.4: Liability Expenses covered in the Selected US States**

State	Pecuniary damages (primary victim)	Non-pecuniary damages (primary victim)
Connecticut	Medical treatment	Pain and suffering
	Lost income	Disability
	Loss of earning capacity	Mental suffering
	Lost service ability (e.g. cost of employing cleaner if unable to do this post accident)	Emotional suffering
		Loss of enjoyment of life
		Disfigurement
		Aggravation of pre-existing injury
		Increased risk of future injury/disability
		Wrongful death – funeral expenses, lost earnings, lost support
		Loss of consortium (spouse)
Maine	<i>If fault <51%:</i>	<i>If fault <51%:</i>
	Lost income	Pain and suffering
	Medical costs	Permanent disability/impairment
	Property damage	Permanent disfigurement
	Loss of earning capacity	
New Jersey	Property damage	Pain and suffering
	Lost income	Permanent disability/impairment
	Adaptations to home	Permanent disfigurement
		Loss of enjoyment of life
New York	Medical expenses	<i>Only if “serious injury”:</i>
	Lost income	Pain and suffering
	Death benefit	Mental anguish
	Property damage	Loss of enjoyment of life
Pennsylvania	Full tort – any injury	Wrongful death
	Limited tort – catastrophic/permanent injuries only	

Source: CT - <http://www.advocateslawfirm.com/lawyer-attorney-1115434.html>; NJ - <http://www.keefebartels.com/CM/FSDP/PracticeCenter/Personal-Injury/Motor-Vehicle-Accidents.asp?focus=topic&id=1>; NY - <http://www.stephanpeskin.com/CM/Custom/NYAUTOinsurance.asp>

**Table 5.5: Minimum Levels of Insurance Coverage**

Country	Bodily injury (National Currency)	Material damage (National currency)	Bodily injury (€)	Material damage (€)
Austria	5,000,000	1,000,000	5,000,000	1,000,000
Belgium	Unlimited (i.e. there is no minimum level of cover with regards bodily injury)	100,000,000	Unlimited	100,000,000
Bulgaria*	700,762/person 1,001,087	200,217	358,636/person 512,336	102,467
Cyprus	30,000,000	1,000,000	30,000,000	1,000,000
Czech Republic	35,288,834/person Unlimited	35,288,834	1,322,978/person Unlimited	1,322,978
Denmark	96,130,340	19,025,796	12,908,382	2,554,784
Estonia*	5,342,532/person Unlimited	1,599,708	341,441/person Unlimited	102,237
Finland	Unlimited	3,300,000	Unlimited	3,300,000
France	Unlimited	1,000,000	Unlimited	1,000,000
Germany	7,500,000	1,000,000	7,500,000	1,000,000
Greece	500,000	100,000	500,000	100,000
Hungary	1,504,991,869	501,609,902	5,116,972	1,705,474
Ireland	Unlimited	1,000,000	Unlimited	1,000,000
Italy*	774,685	774,685	774,685	774,685
Latvia*	245,648/person 1,754,625	70,185	349,633/person 2,497,375	99,895
Lithuania*	1,731,550/person 1,731,550	346,310	505,370/person 505,370	101,074
Luxembourg	Unlimited	Unlimited	Unlimited	Unlimited
Malta*	1,650,000	233,000	1,650,000	233,000
Netherlands	5,000,000	1,000,000	5,000,000	1,000,000
Poland*	5,423,835	1,084,767	1,229,583	245,917
Portugal	1,200,000	600,000	1,200,000	600,000
Romania*	26,567,886,293	5,313,577,259	531,358	106,272
Slovakia*	19,097,656/person Unlimited	5,025,699	633,851/person Unlimited	166,803
Slovenia*	2,500,000	500,000	2,500,000	500,000
Spain	70,000,000	15,000,000	70,000,000	15,000,000
Sweden	302,137,520	302,137,520	27,802,695	27,802,695
UK	Unlimited	965,701	Unlimited	1,074,864

(*): Implementation of full limits in 2012 following Fifth EU Motor Insurance Directive is described separately below. Note: Values are per incident unless otherwise specified

Source: Swiss Re, MTPL Presentation by J. Hartsmann and Z. Zimmermann, 13th November 2008, Warsaw, available at http://www.piu.org.pl/download/Z2Z4L3BpdS9wbC9kZWZhdWx0X2FrdHVhbG5vc2NpLzcvOTMvMQ/prezentacja_swiss_re.ppt (EU).



Values from the source documents were converted or re-converted into Euros using the average exchange rate from April 2009. This is to ensure consistency with the data collected in the profiles. The exception to this rule is Slovakia which joined the Eurozone on 1 January 2009 (i.e. after the collection of this data set by Swiss Re). The exchange rate in this case is the daily interbank rate of 1 Jan 2009. All exchange rates sourced from www.oanda.com.

5.70 The 5th Motor Insurance Directive is having an ongoing impact upon minimum insurance levels, particularly in some Member States where transitional arrangements are in place to bring these levels into line. Where these transitional arrangements are known, these are summarised below.

Table 5.6: Future Minimum Insurance Levels in EU

Member States	From 11/12/2009		From 01/06/2012	
	Bodily Damage (€)	Property Damage (€)	Bodily Damage (€)	Property Damage (€)
Bulgaria*	357,904/person 511,291/event	102,258	5,000,000	1,000,000
Czech Republic	1,000,000	500,000	1,000,000	1,000,000
Estonia	2,500,000	500,000	5,000,000	1,000,000
Italy	2,500,000	500,000	5,000,000	1,000,000
Latvia	2,500,000	500,000	5,000,000	1,000,000
Lithuania	2,500,000	500,000	5,000,000	1,000,000
Malta	2,500,000	500,000	5,000,000	1,000,000
Poland	2,500,000	500,000	5,000,000	1,000,000
Romania*	1,500,000	300,000	5,000,000	1,000,000
Slovakia	2,500,000	500,000	5,000,000	1,000,000
Slovenia	3,750,000	750,000	5,000,000	1,000,000

(*): Implementation of half of the full limits in 2010 following 5th EU Motor Insurance Directive

Source: Swiss Re, MTPL Presentation by J. Hartsmann and Z. Zimmermann, 13th November 2008, Warsaw, available at http://www.piu.org.pl/download/Z2Z4L3BpdS9wbC9kZWZhdWx0X2FrdHVhbG5vc2NpLzcvOTMvMQ/prezentacja_swiss_re.ppt and Country Reports (http://ec.europa.eu/internal_market/insurance/docs/motor/min_amounts_en.pdf)

5.71 The CEA has recently analysed the largest claims recorded in the last five years for a sample of countries, including fourteen Member States.⁵¹ The two largest incidents were both just above €25 million in value (one relating to an accident in 2002 in the UK; the other to an incident in 2004 in Germany). Looking only at those Member States that are yet to fully transition to the levels set out in the 5th Motor Insurance Directive, the CEA's analysis includes: the Czech Republic (value of largest claim recorded in last five years is €4.5 million, in 2004), Estonia (€1.53 million, 2005), Italy (€4.1 million), and Poland (€0.5 million, 2004).

⁵¹ CEA, "Motor Statistics 2009".



5.72 The limitations on minimum cover in the Selected USA States are illustrated below. It is immediately apparent that the mandated levels are significantly below those applicable within the EU.

Table 5.7: Minimum levels of coverage in the Selected USA States

Connecticut	20,000/person	10,000	15,148/person	7,574
	40,000		30,296	
Maine	50,000/person	25,000	37,870/person	18,935
	100,000		75,739	
			30,296	
New Jersey	Not required	5,000	Not required	3,787
New York	25,000/person	10,000	18,935/person	7,574
	50,000		37,870	
Pennsylvania	15,000/person	5,000	11,361/person	3,787
	30,000		22,722	
			37,870	
Vermont	25,000/person	10,000	18,935/person	7,574
	50,000		37,870	

Source: *www.carinsurance.com (USA)*, 26 July 2009. Values from the source documents were converted or re-converted into Euros using the average exchange rate from April 2009, i.e. \$1.30:€1 (sourced from *www.oanda.com*).

Uninsured driver insurance

5.73 In addition to the minimum levels of bodily and property damage, in the USA it is common practice to incorporate insurance in the event that the third party motorist is uninsured into the compulsory minimum requirement. In the EU, this function is fulfilled through payments by insurers into a guarantee fund. Uninsured driver insurance is set at €15,148 (\$20,000) per person (€30,292 or \$40,000 per accident) in Connecticut. Uninsured driver insurance is not required in New Jersey or Vermont. Some degree of personal protection cover is also required in Maine, New Jersey, New York and Pennsylvania.

Impact of the Insurance and Motor Insurance Directives

5.74 Whilst the processes of liberalisation and deregulation are still ongoing, some effects of the processes can be identified, including:

- (a) Increased presence of foreign companies in national markets, whether through the establishment of their own branches, offices or agencies or through the purchase of shares in existing local insurers.
- (b) Wider range of products as local and foreign insurers innovate and develop existing products so as to 'differentiate themselves from the crowd' and attract more consumers. This also benefits consumers who have a greater range of products to choose from.



- (c) Reduction in prices and some price convergence across countries due to increased competition.
 - (d) Reduced costs of insurance firms as increased competition breeds greater efficiency in operations and a larger network enables some insurers to benefit from economies of scale.
 - (e) Restructuring of the insurance market as the concentration of firms in the European insurance market has increased.
 - (f) Further effects include potential knowledge transfer from foreign to local firms, and improved quality of service and products tailored more closely to the customer's needs.⁵²
- 5.75 Beckman, Eppendorfer and Neimke sought to assess the degree of integration in the European insurance market following the implementation of the three generations of Insurance Directives.⁵³ The authors chose to focus their analysis on the market share of foreign companies in the domestic market, measured by premiums, but noted that there are several alternative indicators of the degree of integration which could potentially lead to contradictory results.⁵⁴ It is argued that the level and dynamics of the degree of openness provide a measure of contestability of a national market since the greater the share of foreign companies, the greater is the range of product choice and companies for the final consumer.
- 5.76 The authors find that, on average, the proportion of foreign-controlled companies in national non-life markets increased from 19.6 per cent in 1993 to 24.7 per cent in 1999, a trend which is attributed to the increased rate of mergers and acquisitions during the 1990s. This average does, however, mask some interesting patterns at national level. For instance, a falling trend was observed in Spain and Luxembourg, Austria remained relatively stable whilst Portugal experienced a steep upwards trend.
- 5.77 Focussing only on branches and agencies located in host countries, the authors find that the average import share of non-life business is just in excess of one per cent although a heterogeneous picture is again observed across Europe. Indeed, estimates of the import share of non-life insurance business in 1999 range from 0.27 per cent in Germany to 9.6

⁵² The impacts identified here are taken from "The European Single Insurance Market: Overview and impact of the liberalization and deregulation processes", Sterzynski, M., 2003, and "Liberalisation of Insurance in the Single Market", Single Market News Special Feature – No (11), March 1998, DG MARKT.

⁵³ Beckman, R., Eppendorfer, C. and Neimke, M., "Financial integration within the European union: Towards a single market for insurance", Institut für Europäische Wirtschaft Diskussionsbeiträge, Ruhr-Universität Bochum (2002)

⁵⁴ Alternative indicators include the magnitude of home country bias in the asset structure of insurance companies, the convergence of product prices, product types and various market indicators and the size of the reinsurance share of the market.



per cent in the Netherlands.⁵⁵ However, it is generally the case that smaller countries have a greater proportion of their insurance business written through foreign companies.

- 5.78 A third step in the analysis considers total foreign presence, defined as the sum of the market shares of foreign-controlled companies, EU/EEA branches and agencies and non-EU/EEA branches and agencies. Given this definition, the average foreign company market share rose from 27 per cent in 1997 to 31 per cent in 1999 and hence even in a relatively stagnant non-life market the share of cross-border transactions has been rather dynamic.
- 5.79 Overall, it is found that countries with a greater market size (in terms of total premiums) are less open to foreign companies. Further, it can be observed that despite the relaxation of host country control, firms seeking to invest in a different Member State are far more likely to purchase an existing local business or acquire a majority shareholding than they are to establish their own branch or office. The entry procedure has an important influence on the effects of liberalisation and integration since if entry occurs through M&A it need not be the case that the range of products increases and hence there may be no impact on competition or consumer welfare. In contrast, where entry occurs through the establishment of branches or offices, new products would be introduced to the local market, increasing both competition and product choice. The same consumer benefits would be derived if market entry occurred through a direct distribution channel such as the telephone or internet.

Anti-discrimination Legislation

The Gender Directive

- 5.80 The Gender Directive (Council Directive 2004/113/EC) of 13 December 2004 implemented “the principle of equal treatment between women and men in the access to and supply of goods and services”. The Commission had expressed its intent to propose prohibition of gender-based discrimination outside the labour market in its social policy agenda of June 2000 and its framework strategy for gender equality (2001-05). The legal basis for the Directive is ex-Article 13 of the EC Treaty which permits the Council to act unanimously and take the necessary measures to combat all gender-based discrimination, given that the Council acts on a Commission proposal and consults with the European Parliament.
- 5.81 The Directive was due to be transposed by Member States before 21 December 2007. Member States were given discretion in the decision of how to interpret and implement the Directive, and were permitted to introduce national legislation to tackle gender discrimination that went beyond the requirements of the Directive itself.

⁵⁵ Norway had the highest share at 21.95 per cent, but this has been excluded from the main text because it is not a Member State of the European Union.



- 5.82 The Gender Directive prohibits discrimination between women and men in access to and supply of goods and services (defined as a service for which the consumer pays), in both the public and private sectors. The Directive does, however, acknowledge that there are certain circumstances in which differences in treatment would be permitted if they can be justified legitimately.
- 5.83 In principle, the Directive prohibits the use of gender as a factor influencing access to and the price of insurance products and other financial services. However, an opt-out clause in the Directive allows Member States to permit such practices under the condition that where gender is a determining factor in the assessment of risk any price differential is based on relevant and accurate actuarial and statistical data. If Member States choose to implement the Directive such that this clause is invoked, they must review the justification for the permission five years after transposition on the basis of the most recent statistical and actuarial data available to them at that time.
- 5.84 Under the provisions of the Directive, each Member State must designate at least one body to promote equal treatment between men and women, analyse problems, make recommendations and provide assistance to victims. Victims may take legal action and/or administrative proceedings so as to secure compensation or reparation. Once the alleged victim has put forward the facts from which it may be presumed discrimination has occurred, the burden of proof rests with the accused.
- 5.85 As noted above, the Gender Directive ensured that insurance products cannot discriminate in price based on gender unless it is possible to objectively justify the differences in specific classes of insurance. Article 5 of the Directive offers two options for Member States in regard to implementation for insurance markets:
- (a) Ban all gender-based differential treatment in the provision of insurance products; or
 - (b) Allow gender-based differences subject to the publication of gender-related data and conditions pertaining to the relevance and accuracy of this data.
- 5.86 If a Member State chooses to implement the Directive through option (b), insurers may continue to differentiate on the basis of gender for the purposes of calculating premiums and benefits for insurance products. Prior to the Gender Directive, insurers were allowed to differentiate using internal data and statistics which did not need to be publically available nor shared with any individual customer applying for insurance.
- 5.87 Following transposition of the Directive through option (b), however, insurers can only differentiate between men and women if:
- The reasons for differentiating are based on relevant and accurate actuarial and statistical data;
 - The information is compiled, published and regularly updated; and
 - The differences of treatment are proportionate having regard to the data used.



Differences across Member States

- 5.88 As shown in Table 5.8, not all EU Member States have transposed the EU Gender Directive at the date that we conducted our mystery shopping exercise.
- 5.89 The European Commission sent reasoned opinions to the Czech Republic, Greece and Poland for the non-transposition of the Gender Directive on 26th June 2008 and legislation is still pending in these countries at the moment. Despite having been issued these 'Reasoned Opinions', continued failure to transpose the Gender Directive into national law led the European Commission (in May and June 2009) to refer Poland, Estonia, the Czech Republic and Greece to the European Court of Justice for failure to notify measures to transpose this Directive.

Table 5.8: State of Transposition as of date of Mystery Shopping exercise

Transposed	Date of Transposition	Yet to transpose
Austria	December 2007	Czech Republic
Belgium	December 2007	Greece
Bulgaria	November 2007	Latvia
Cyprus	2008	Poland
Denmark ⁵⁶	September 2007	Estonia
Finland	2007	
France	December 2007	
Germany	August 2006	
Hungary	2007	
Ireland	July 2008	
Italy	November 2007	
Lithuania	July 2005	
Luxembourg	December 2007	
Malta	August 2008	
Netherlands	July 2007	
Portugal	March 2008	
Romania	May 2008	
Slovakia	April 2008	
Slovenia	September 2007	
Spain	March 2007	
Sweden	January 2009	
UK	April 2008	

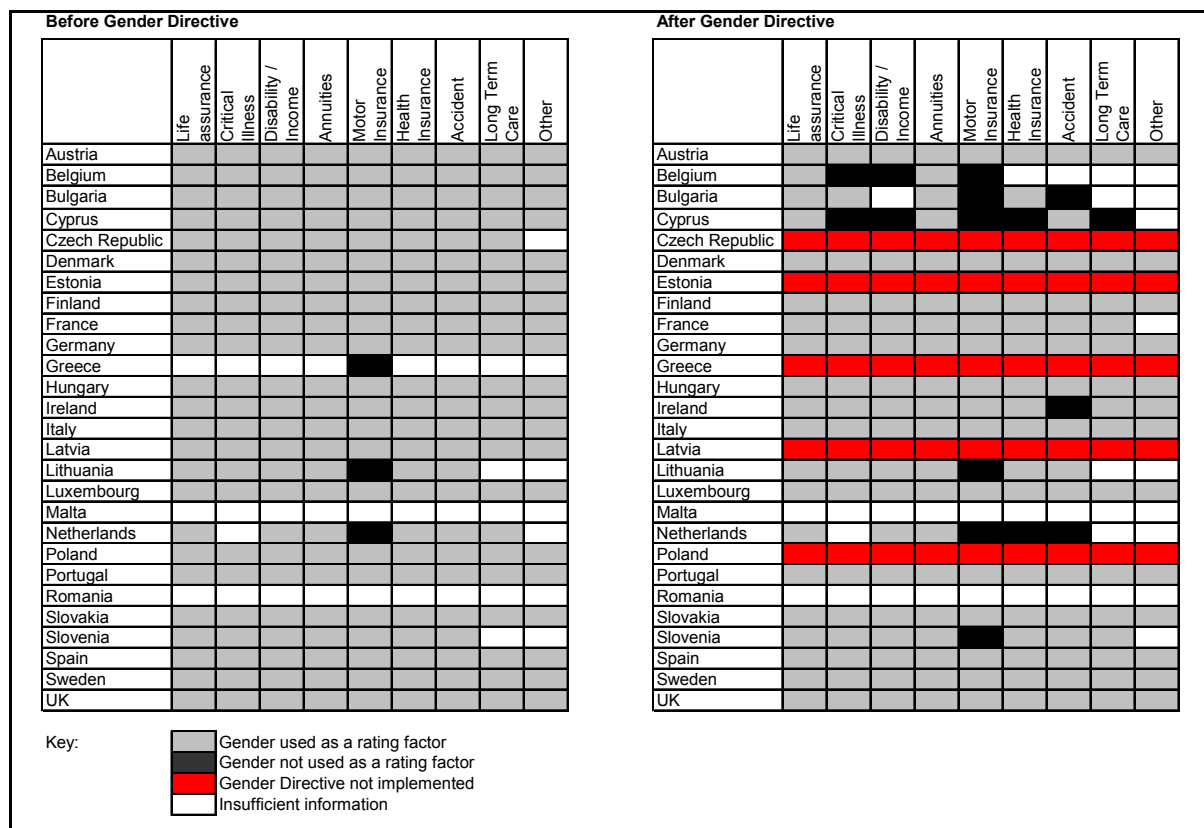
Source: Based on results taken from "Implementation of the "Insurance Gender Directive", Provisional Results of Groupe Consultatif Survey", Jim Murphy and Manuel Peraita, March 2009 and Europe Economics research

⁵⁶ Denmark has transposed certain sections of the Gender Directive whilst other sections are yet to be transposed



- 5.90 Based on the discussion above, it is possible to analyse differences in the implementation strategy of those countries that have already transposed the Gender Directive. Member States can be broadly split into three groups: those that have implemented the Directive with option (a), those that have implemented the Directive with option (b) and those that have (still) not implemented the Directive.
- 5.91 The Insurance Committee of the Groupe Consultatif Actuariel Européen organised two surveys to assess the extent of gender differentiation in European insurance markets. The first of these surveys was conducted prior to the implementation of the Gender Directive whilst the second was conducted ex-post and thus assesses the impact of the Directive. The surveys provide general information concerning the extent of gender differentiation across the EU, the way in which the Gender Directive has been implemented in different Member States and information about gender differentiation for specific insurance products, including motor insurance.
- 5.92 Figure 5.1 illustrates differences across the EU in the use of gender as a rating factor for various insurance products before and after the implementation of the Gender Directive.

Figure 5.1: Use of Gender as a Rating Factor in Insurance Premiums



Source: Based on results taken from "Implementation of the "Insurance Gender Directive", Provisional Results of Groupe Consultatif Survey", Jim Murphy and Manuel Peraita, March 2009, "Equal Opportunities", Financial Services Review, November 2004



- 5.93 The ex-post survey shows that following the implementation of the Gender Directive, thirteen of the 26 countries surveyed have chosen to keep charging different insurance rates to men and women for all insurance products in which such practices were previously employed.⁵⁷ Through their legislation implementing the Directive, these countries used at least one 'opt out' clause for all types of insurance, whilst the remaining countries in which the Directive has been implemented chose to opt out for at least some types of insurance.⁵⁸ No country prohibits gender differentiation for all types of insurance.
- 5.94 The implementation of the Directive has led to policy changes in several of the surveyed countries. For instance, prior to the Gender Directive, insurers operating within Belgium were allowed to differentiate by gender for all types of insurance but this practice is no longer allowed for motor insurance. Cyprus and the Netherlands also banned the use of gender as a rating factor for motor insurance, and certain other insurance types, through their implementing legislation. The use of gender as a rating factor in motor insurance is now not permitted in six countries.

Differential implementation

- 5.95 It is possible to identify further differences between Member States. One dimension along which such distinctions can be drawn is the rigour of the national legislation in which the Directive was transposed in respect of insurance companies.
- 5.96 One indicator of rigour is the rules pertaining to the use of statistical and actuarial data. In this case, the most rigorous implementation consists of detailed requirements as to the degree of data required, the collection process and a requirement for premium rates and benefits to be supported by published data. The least rigorous implementation would consist of little prescription in regard to the degree of data to be collected, the collection process and a practice of using the data simply to justify gender differentiation rather than to justify the degree of differentiation in premiums.
- 5.97 A further distinction can be drawn in terms of the purpose of the implementing legislation, whether as a consumer protection measure or a prudential measure. A post-implementation survey, based on the Groupe Consultatif's member associations' understanding of the implementation, found that the application of the Gender Directive differed across Europe.⁵⁹ In a number of countries, the associations contend that the Directive has been implemented as a General Good measure, which would mean that national requirements in these countries would apply to insurance sold to domestic consumers, whether by domestic or foreign insurers, but the requirements do not apply to domestic insurers selling insurance cross-border. Other countries have implemented the

⁵⁷ Of the 26 countries surveyed, 24 are EU Member States. The omitted Member States are Greece, Malta and Romania.

⁵⁸ Source: "Implementation of the "Insurance Gender Directive", Provisional Results of Groupe Consultatif Survey", Jim Murphy and Manuel Peraita, March 2009.

⁵⁹ "Implementation of the "Insurance Gender Directive", Provisional Results of Groupe Consultatif Survey", Jim Murphy and Manuel Peraita, March 2009.



measure as a prudential supervisory measure (such that requirements apply to national insurers whether selling insurance in the home country or cross-border but do not apply to foreign insurers selling insurance to domestic residents on a cross-border basis) or a hybrid of the two. Groupe Consultatif Actuariel Européen notes that this would result in an “unlevel playing field where cross-border business is concerned”. However, the interpretation made (specifically whether it is possible to implement a measure such as the Gender Directive on a General Good basis) remains somewhat contentious.

Application in motor insurance

5.98 As noted above, the surveys organised by the Insurance Committee of the Groupe Consultatif Actuariel Européen provide information concerning gender differentiation for motor insurance products. The surveys present the following picture of gender differentiation in motor insurance products, including a comparison with the results obtained in our own mystery shopping exercise.

Figure 5.2: Gender differentiation in Motor Insurance

	Before Gender Directive	After Gender Directive	Mystery shopping results (i.e. market practice)
Austria	Grey	Grey	Grey
Belgium	Grey	Black	Black
Bulgaria	Grey	Black	Black
Cyprus	Grey	Black	Black
Czech Republic	Grey	Red	Black
Denmark	Grey	Grey	Grey
Estonia	Grey	Red	Black
Finland	Grey	Grey	Grey
France	Grey	Grey	Grey
Germany	Grey	Grey	Grey
Greece	White	Red	Black
Hungary	Grey	Grey	Grey
Ireland	Grey	Grey	Grey
Italy	Grey	Grey	Grey
Latvia	Grey	Red	Black
Lithuania	Black	Black	Black
Luxembourg	Grey	Grey	Grey
Malta	White	White	Black
Netherlands	Grey	Black	Black
Poland	Grey	Red	Grey
Portugal	Grey	Grey	Grey
Romania	White	White	Black
Slovakia	Grey	Grey	Black
Slovenia	Grey	Black	Black
Spain	Grey	Grey	Grey
Sweden	Grey	Grey	Grey
UK	Grey	Grey	Grey

Key:

	Gender used as a rating factor
	Gender not used as a rating factor
	Gender Directive not implemented
	Insufficient information



Source: Based on results taken from "Implementation of the "Insurance Gender Directive", Provisional Results of Groupe Consultatif Survey", Jim Murphy and Manuel Pereira, March 2009.

- 5.99 The vast majority of European countries applied some differentiation by sex in the determination of premiums for motor insurance prior to the implementation of the Gender Directive. The majority of these continue to do so following its implementation. The implementation of the Directive has led to a policy change in the field of motor insurance for five of the countries that have implemented the Directive to date such that it is no longer permitted to use gender as a rating factor for motor insurance. In a further group of countries, the market practice — at least in respect of the mystery shopping exercise that we have conducted — is to offer unisex rates.
- 5.100 In general, where gender differentiation exists in motor insurance, premiums are lower for women than for men, all else being equal.⁶⁰ One interesting feature is that the difference in premiums is greatest amongst the young and the margin narrows with age and may even reverse such that women of a certain age face higher premiums than men, all else being equal. Indeed, for the UK a submission by the AA Motoring Trust to the Inquiry on the Proposed EU Gender Directive shows that motor premiums are 56 per cent greater for 17-year-old males than for their female counterparts whilst for drivers over the age of 55, premiums for women are at least as large as for men, and generally larger.
- 5.101 As noted, differences exist between countries in terms of how any gender differentiation is applied to insurance products. To take one comparison, those Portuguese insurers that differentiate on the basis of gender do so by applying larger No Claims Bonus discounts for women and hence differentiation exists only if the individual can indicate that they are a safe motorist through an absence of claims. However, the Portuguese approach appears to be somewhat unusual and in most other countries the market practice is to differentiate on the basis of gender even for base premiums (i.e. premiums prior to the deduction of any No Claims Bonus).

The impact of the Gender Directive and other anti-discrimination legislation in the EU

The Gender Directive

- 5.102 We have identified above those countries which have opted-in to the Gender Directive with respect to motor insurance at the time of the mystery shopping exercise and where this had resulted in a change in market practice: Belgium, Bulgaria, Cyprus, Netherlands and Slovenia. This group may be enlarged once the Gender Directive is fully transposed.
- 5.103 We have noted already that, in those countries that do not prohibit differentiation in tariffs based upon gender, there can be significant differences, particularly for younger drivers. In our mystery shopping exercise — described more fully in Section 8 and in Appendix 3

⁶⁰ This discussion of the characteristics of gender differentiation in motor insurance is based on discussion in the ex-ante Groupe Consultatif survey.



— two of our profiles were for drivers in the relevant demographic: profile 1 was a 22-year-old driver and profile 5 was a 21-year-old driver. Looking at the cheapest quotes that we were able to obtain, the results in these countries was as follows:

- (a) Profile 1 (Third Party Fire & Theft). The price difference (being the difference between the lowest male and female quotes expressed as a percentage of the lowest female quote) was about 75 per cent in Ireland (however, only one quotation was obtained each), 40 per cent in Spain, 30 per cent in the UK, 20 per cent in Italy and 5 per cent in Germany.
- (b) Profile 5 (Comprehensive, including M3PL). The price difference (again being the difference between the lowest male and female quotes expressed as a percentage of the lowest female quote) was about 60 per cent in the UK, 50 per cent in Spain and 25 per cent in Italy. The price difference had vanished in Germany and no quotations were obtainable in Ireland.

5.104 One of the factors underlying the superior safety record of female drivers is believed to be a tendency (on average) towards higher risk aversion (at least relative to young males). This implies that the price elasticity of demand for insurance from the average woman will be more inelastic than that of the average man. This argument means that there is an *a priori* reason to anticipate insurers setting an unisex rate for voluntary cover types (such as accidental own damage and legal expenses) closer to the pre-existing male premium than to the female premium.

5.105 In terms of quantification of any effect, the econometrics around the mystery shopping does not robustly identify that, all else being equal, drivers in those countries opting-in are paying more than those in countries that opted-out. Similarly, examination of the price indices measuring the cost of insuring the average car do not indicate a step around the implementation of the Gender Directive in those countries opting-in that is discernible over and above the noise inherent in any price index.

5.106 In our survey, respondents from Belgium, Bulgaria, the Netherlands and Slovenia were either neutral about average premium effects or believed that average premiums had increased as a result. Indeed, an interviewee with a Belgian insurer revealed the following: that prior to the implementation of the Gender Directive, the insurer had distinguished between male and female drivers between the ages 18–30 (with some other Belgian insurers differentiating across the policyholder's entire lifespan). Post-implementation, the insurer had increased prices for women but had not been able to discern any change in the demand for non-mandatory insurance covers over and above the normal volatility (or noise) in that demand.

Other measures

5.107 Only very few other anti-discrimination measures were identified and, of these, nearly all were considered to have been neutral in their effect on average premiums (other than the passing on of some part of the compliance cost burden). The exception was the Equality



Bill (Age Discrimination) in the UK, which one British insurer contended could (in theory) disallow rating on the basis of driver age. Given the absolute importance of age and experience in determining premiums, such a legislative innovation appears unlikely in practice. A more reasonable interpretation given that the elderly are perceived as higher risk is that the Equality Bill may have a narrower objective — however, the ABI has indeed recently studied some of the issues associated with age-based discrimination legislation and found that 99 per cent of elderly drivers were able to obtain motor insurance (so that the evidence of some market failure requiring regulatory intervention was weak).⁶¹

The use of gender as a rating factor in the USA

5.108 Of the States considered in this study, Connecticut, New Hampshire, New Jersey, New York, Maine, Pennsylvania, Rhode Island and Vermont permit insurers to offer different motor insurance premiums to a female than an otherwise identical male. Massachusetts law bans use of gender and all other socio-economic factors in both insurance underwriting and rating decisions:

“Risks may be grouped by Classifications for the establishment of Rates and minimum Premiums. Rates may be modified to produce premiums for individual risks in accordance with rating plans that establish standards for measuring variations in hazards or expense provisions, or both. Such standards may measure any differences among risks that can be demonstrated to have a probable effect upon losses or Expenses. No risk Classification, however, shall be based upon sex, marital status, race, creed, national origin, religion or age, except to produce the reduction in Rates for insureds age 65 years or older required by G.L. c. 175E”

5.109 Under Title VIII of the Civil Rights Act of 1968 (Fair Housing Act), it is illegal to discriminate in any type of housing related transaction on the basis of race, sex, religion, national origin, colour, disability or the presence of children under the age of 18. This is a Federal Act and hence applies to all States. Home insurance is classified as a housing related transaction and hence insurers may not discriminate on any of the above bases in setting the level of home insurance premiums.

⁶¹ CRAI (2009), “Insurance and age-based differentiation”.



6 THE EVOLUTION OF PREMIUMS AND PROFITABILITY IN MOTOR INSURANCE

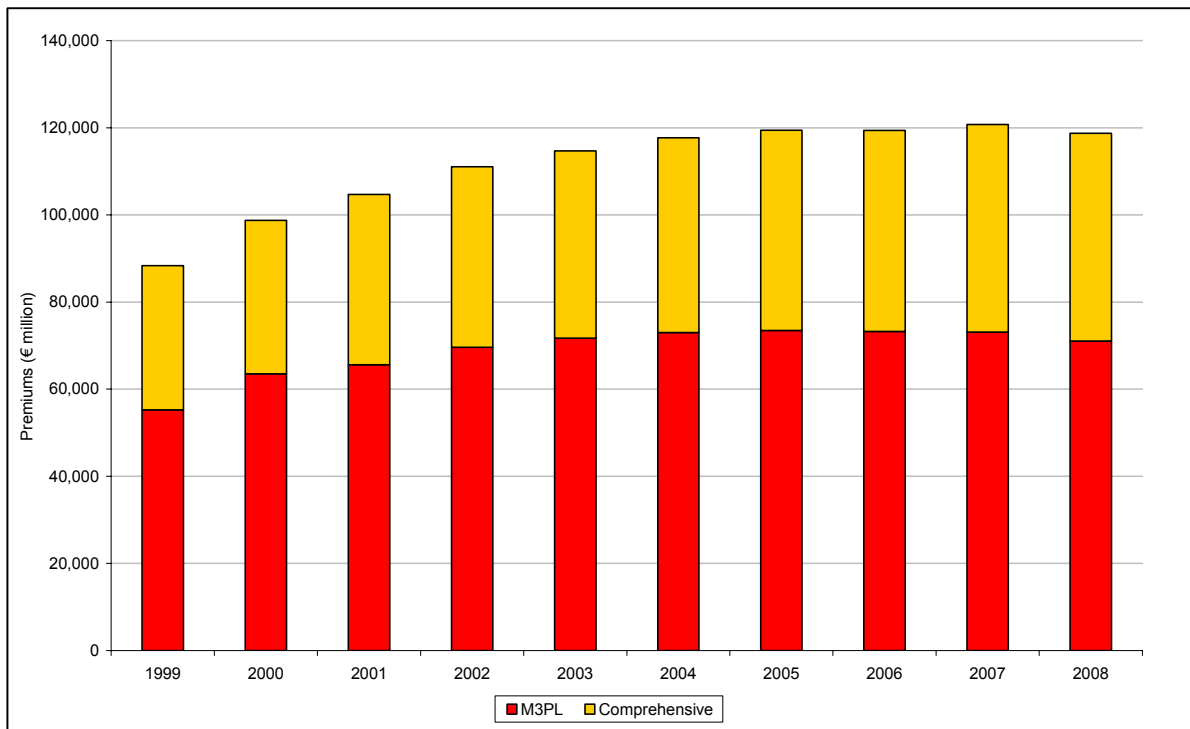
Introduction

6.1 In this Section we describe the drivers of premiums and profitability in motor insurance. We conduct this analysis on a country by country basis (State by State in the USA). However, first we provide a brief overview of the motor insurance market.

Market Overview

6.2 Europe has the largest motor insurance market in the world, with almost 300 million vehicles on the road and total motor insurance premiums in the EU27 of just under €119 billion in 2008. It is clear from Figure 6.1 below that the market has not exhibited real growth since 2005. The growth from 1999 is driven by two main factors: first, by increasing premiums in Italy, Spain and the UK — and to a lesser extent in France and Germany. Although relatively mature markets, all three of these experienced growth in average premiums in this period. This is described further below in the country by country analysis. The second — in absolute terms, rather less significant — factor has been the rapid development of the motor insurance markets in the CEE Member States.

Figure 6.1: Total Motor Premiums for EU27 by Sector, 1999–2008



Source: Comité Européen des Assurances (CEA), EE analysis

6.3 The market in the EU27 is largely dominated by that in France, Germany, Italy, Spain and the UK, which together account for just under 75 per cent of all motor insurance



premiums. Of these major markets Italy, Germany and the UK are all struggling to achieve positive growth on even on a non inflation-adjusted basis.

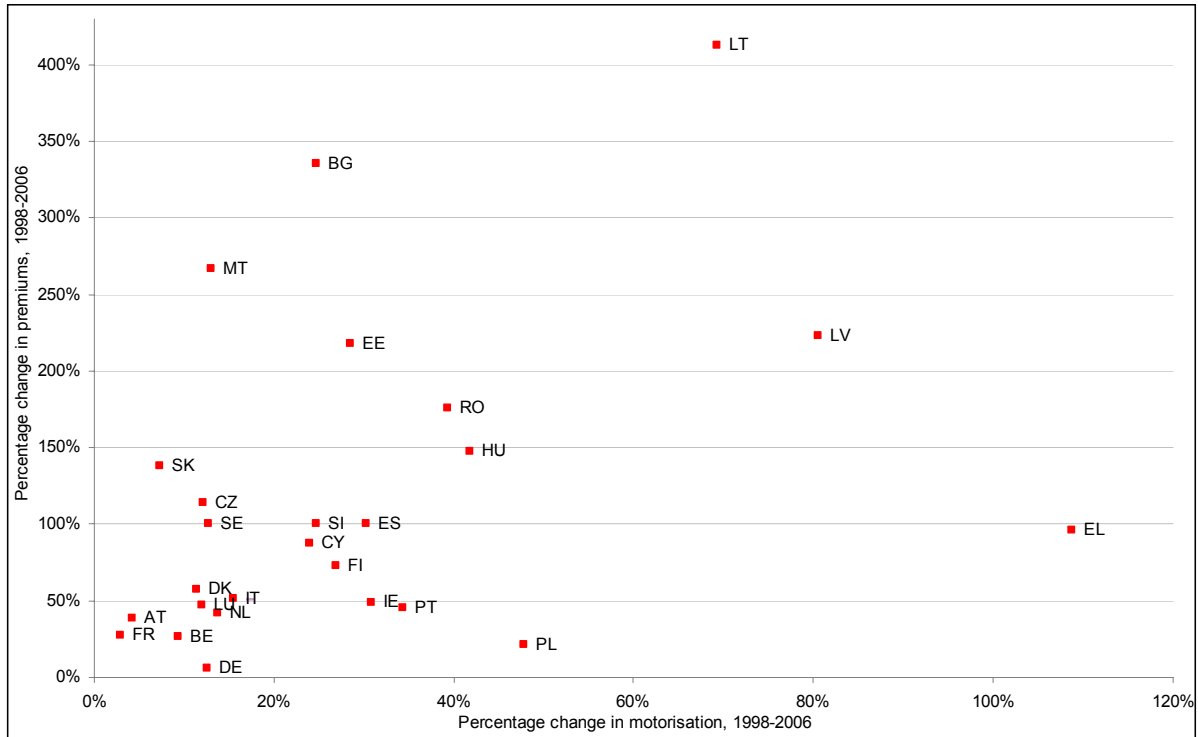
- 6.4 Indeed, the onset of more challenging economic conditions in 2008 resulted in an increased number of markets with declining aggregate premiums. In 2007, year-on-year motor insurance premiums declined in Germany, Ireland, Italy, the Netherlands, Portugal and Sweden. In 2008, all the markets in all of these countries continued to shrink, but were joined by Austria, Hungary, Malta and the UK (with the latter recording the sharpest decline). France and Finland were, on the other hand, stable in nominal terms in 2007 but returned to (small-scale) growth in 2008.
- 6.5 Hungary was the sole CEE Member State to record a year-on-year decline in aggregate premiums. However, a number of others saw significant declines in growth rates — in particular in Estonia, Latvia, Lithuania and Romania. The rate of year-on-year growth accelerated in the Czech Republic.
- 6.6 There are a number of types of harm that motor insurance can provide protection from. Property damage and bodily injury other than to the vehicle owner are third party matters and in Europe incorporated into third party liability insurance (M3PL). Accidental damage to or theft of the owned vehicle, theft from the vehicle and fire are first party matters. Typically these are referred to as own damage or comprehensive forms of cover, and in some markets there is a further separation in order to discretely identify accident cover). (Again, it is the practice in the USA to refer to accidental damage cover as “comprehensive”.) We refer to them here as “Comprehensive”. It must be noted that in some markets — such as the UK — a comprehensive product would be understood to combine both M3PL and the own damage elements. Data gathering in the EU27 typically identifies only M3PL and own damage — our approach has the additional merit of requiring least transformations to this data. (The “own damage” category will normally incorporate the accident element).
- 6.7 In addition, motor insurance has evolved to incorporate other forms of cover such as breakdown and emergency protection, legal expenses, and other add-ons. These are more normally incorporated into comprehensive product types. The implication is that M3PL is a more homogenous product (at least when considered within an individual national market) and — all else being equal — one would expect a greater focus on price competition in M3PL.

The impact of motorisation

- 6.8 Growth has been driven to a large extent by changes in motorisation (i.e. the number of vehicles per, say, every 100 people), changes in the quality of the stock of vehicles and increases in the compensation limits associated with M3PL policies (all of these trends are particularly apparent in the CEE Member States).



Figure 6.2: Change in Total Premiums compared with Change in Motorisation, 1998–2006



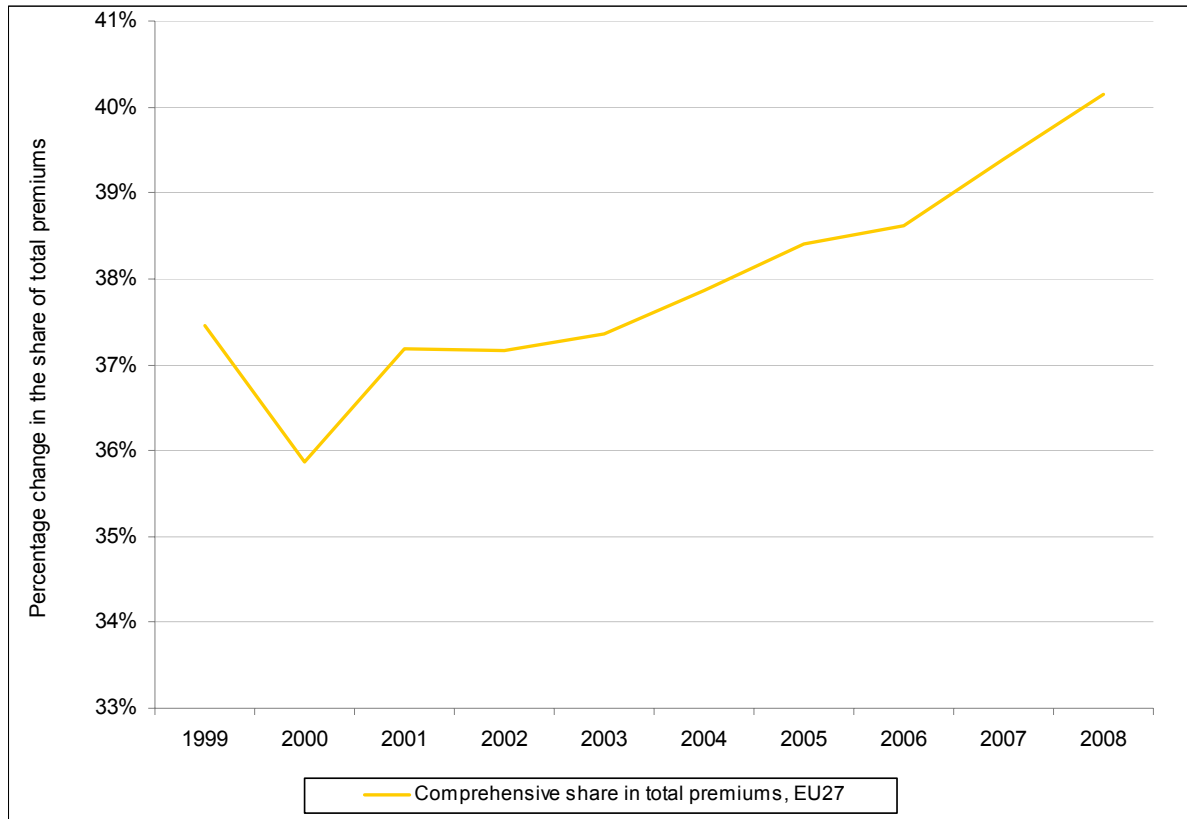
Source: CEA, Eurostat, EE analysis

Changing mix in motor insurance

6.9 As we have already noted, the recent past has not seen significant increases in the aggregate value of motor insurance (indeed, 2008 saw a small decline). Within this overall picture, M3PL is very slowly declining in relative importance. Figure 6.3 illustrates this secular trend (the main exception here is Italy where the market is still dominated by M3PL — as we discuss further below, the cost per vehicle of M3PL insurance is relatively high in Italy and this may stifle demand for these other forms).



Figure 6.3: Change in the Share of Comprehensive Cover in the EU27, 1999–2008

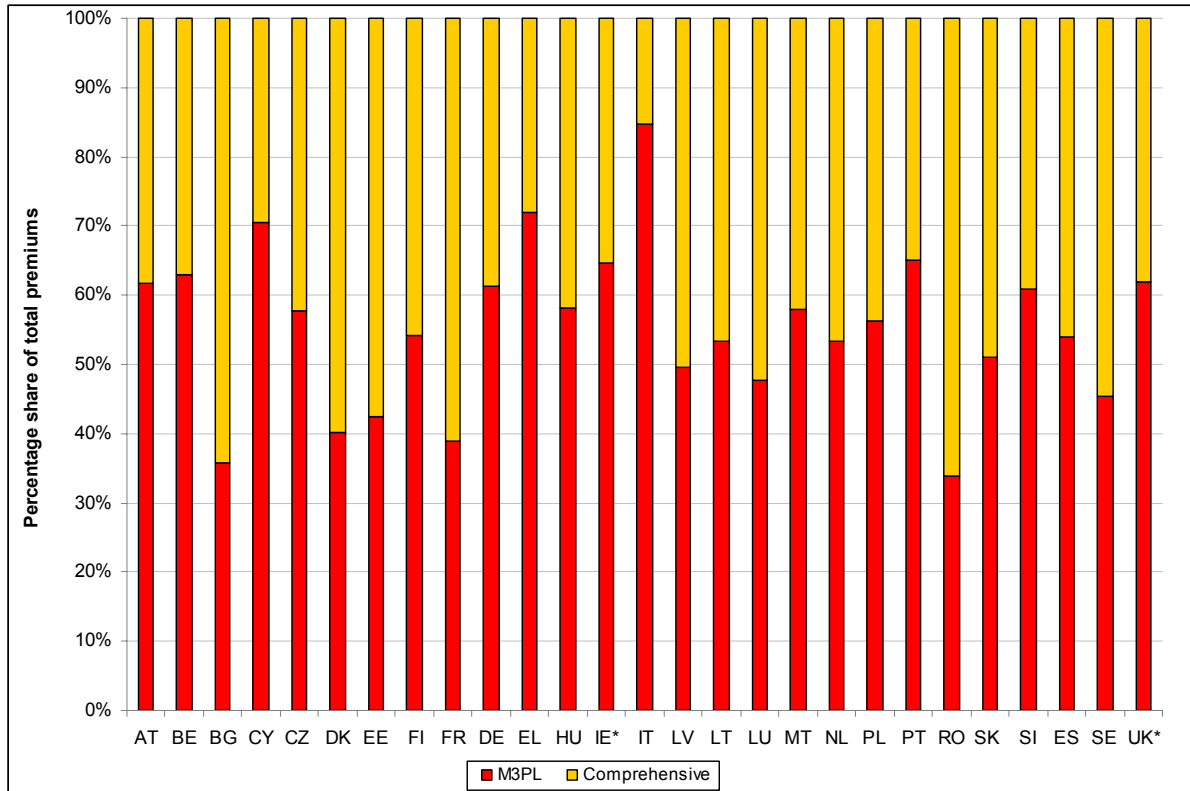


Source: CEA, EE analysis

6.10 The current division between M3PL and comprehensive forms differs significantly from country to country.



Figure 6.4: M3PL and Comprehensive as Share of Total Premiums, 2008



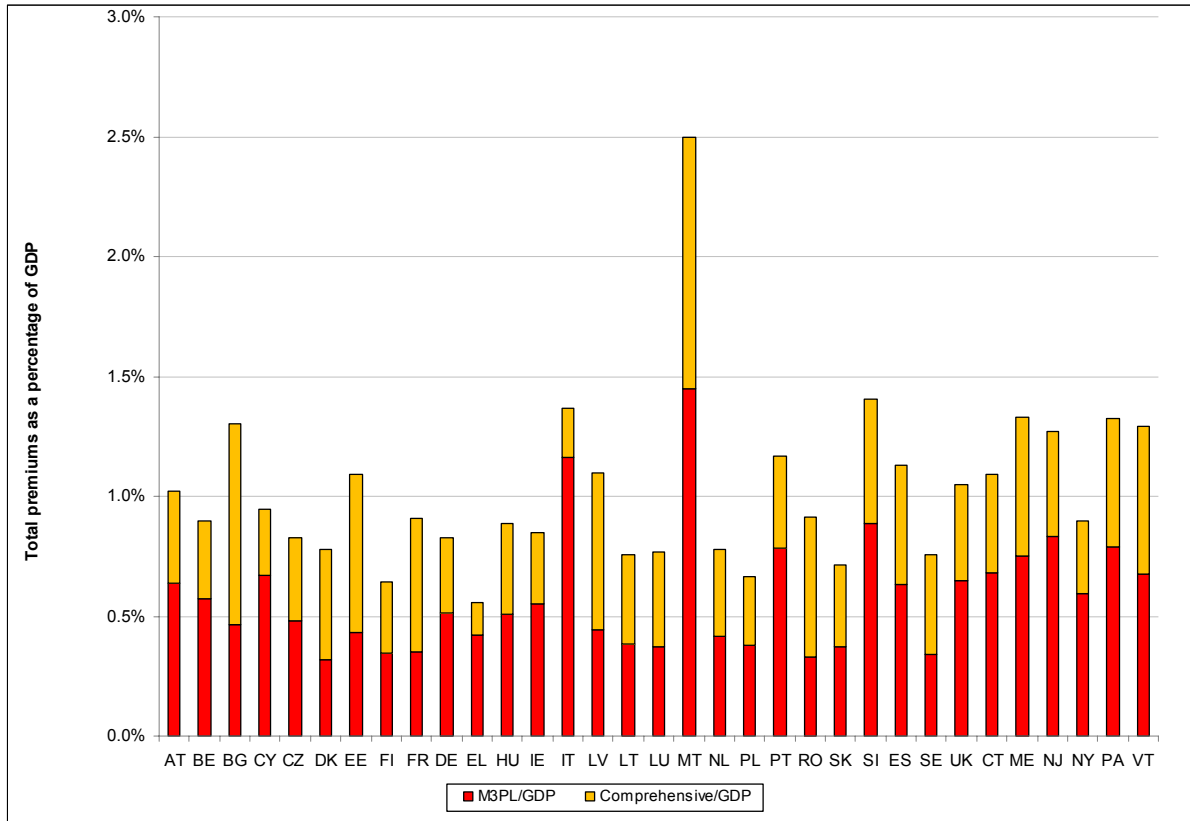
Source: CEA. * Ireland and the UK are estimates since these markets do not separately identify the M3PL and own damage elements.

The Relative Importance of Motor Insurance

- 6.11 Motor insurance is typically the single most important branch of non-life insurance in any country. Figure 6.5 below identifies the relative share of M3PL and comprehensive (i.e. own damage) covers in each Member States and each of the Selected USA States (at the right hand side of the graphic).
- 6.12 The penetration of motor insurance tends to be around one per cent of GDP (slightly below this level in the EU27, slightly above this level in the Selected USA States). The low relative penetration in Finland and Sweden is associated with greater social security net provided by the State in the welfare of its citizens.



Figure 6.5: Premiums as a Share of GDP by Sector in the EU27 (2008) and the Selected USA States (2007)



Source: CEA, NAIC. In the USA, motor insurance is organised differently. A policyholder will have discrete policy elements providing cover against third party liability (typically referred to as Auto Physical, Auto Bodily and Other Liability) and can also supplement this with other elements such as Uninsured Driver, Comprehensive and Collision covers. In the chart above, we have approximated Liability cover for M3PL and all others as “Comprehensive” in order to provide a reasonable comparison.

6.13 Another way of looking at this is to compare aggregate premiums with the vehicle stock. However, caution is required since:

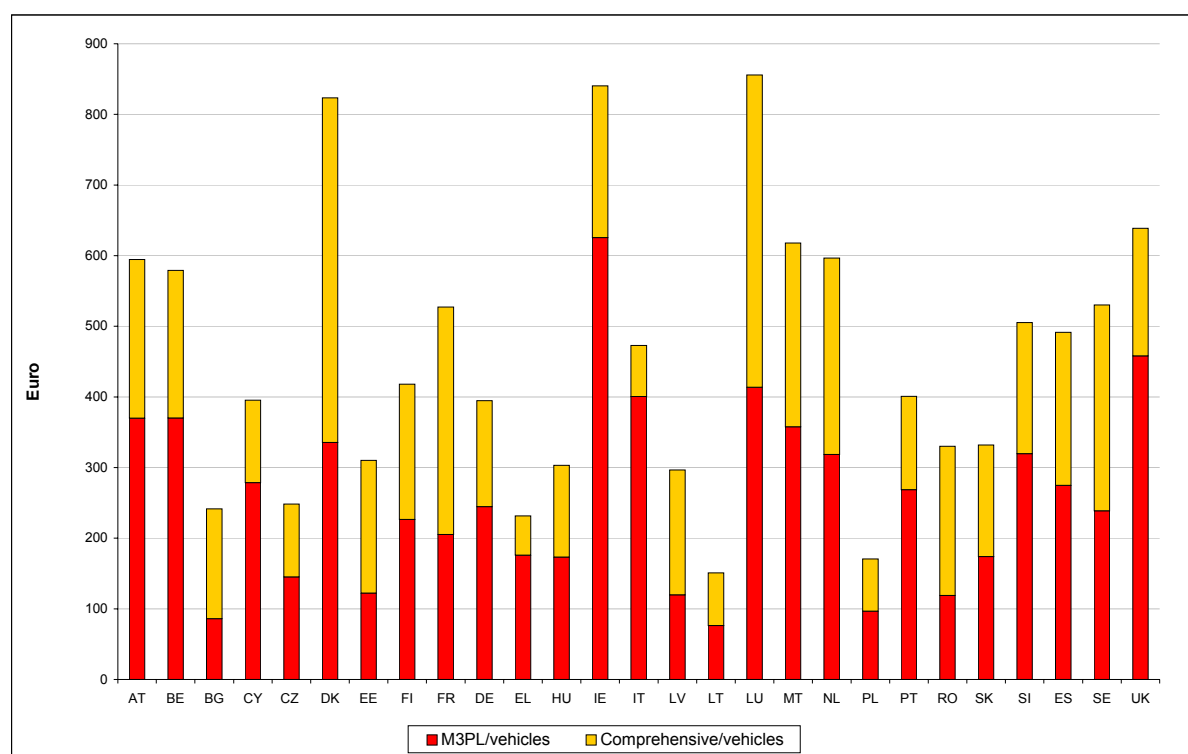
- (a) the proportion of uninsured vehicles varies significantly (from virtually zero in Denmark to 25 per cent in Romania),⁶²
- (b) the composition of the stock of vehicles varies significantly; and
- (c) since own damage cover is not compulsory, the average below will systematically understate the average cost to a policyholder with that form of insurance (particularly in those countries, such as Italy, where it is less commonplace).

⁶² DG MARKT/2608/06 (March 2006).



6.14 However, notwithstanding these limitations, it is useful to gain a sense of the magnitude of disparity between Poland and Latvia at one end of the scale and, say, Luxembourg at the other.

Figure 6.6: Premiums per Vehicle by Sector



Source: CEA, Eurostat, EE analysis

Market Structure

6.15 We have discussed market structure in terms of the insurance companies at some length in Section 2, and do not repeat our analysis in here.

6.16 However, retail insurance is a market where distribution is frequently separate to “manufacture”. Key forms of distribution include:

- Direct sale by the insurance companies. Historically, this implied a significant network of offices staffed by salespeople. However, over the last decade or so, “direct insurers” have emerged, focused only (or at least primarily) on direct sale to policyholders over the telephone or (latterly) over the internet. This is in essence a low cost concept. Whether the lack of face-to-face contact affects quality is for an individual policyholder to determine.
- Sale through a network of tied agents. This can be characterised as an outsourced sales network (particularly where the agents are tied to one insurer only). This can be a highly cost-effective form of distribution: however, it is important that the policy-holder is aware of the status of the agent (specifically,



that there is no confusion in status with an independent intermediary, as described below). This form of distribution is in retreat nearly everywhere. However, distribution at Point of Sale (POS) is somewhat similar and this is on the increase. POS is similar in the sense that the choice of insurer is generally limited (often to a single insurer); the fundamental difference is that the sale of insurance is ancillary to the main business.⁶³

- Sale through independent intermediaries (frequently known as brokers). In this model, it is the consumer who is outsourcing an activity — in this case the search for the “best” policy — to the intermediary. It is generally accepted that where products are relatively homogenous, a significant market share in distribution for independent intermediaries has some economic advantages.⁶⁴ However, this can come at a higher cost.⁶⁵ In some markets this role is being cannibalised by internet-based price comparison websites.
- Sale through bancassurance partners and by other means. Where banks and insurers share common ownership (or some other form of contractual arrangement), an attempt will normally be made to exploit distributional synergies and to cross-sell financial services products.

6.17 These broad models of distribution vary greatly across the EU. These are summarised in Table 6.1 below.

⁶³ As we have argued elsewhere (e.g. our study on Credit Intermediation in Europe, 2009, on behalf of DG MARKT) there is a trade-off between the convenience of purchase of financial services products at POS (with a reduction in the search cost for the consumer) but also (mostly) an increased cost (i.e. in case, a higher premium).

⁶⁴ See, for example, work by Autorita' Garante della Concorrenza e del Mercato, AGCM, the Italian Competition Authority, in its commentary on the Bersani Decree (Press release 2, 2007).

⁶⁵ Trigo-Gamarra, L (2008), The International Association for the Study of Insurance Economics 1018-5895/0, “Reasons for the coexistence of different distribution models: an empirical test of the German insurance market” finds support for a price-quality trade-off whereby the higher costs of independent intermediaries match to higher levels of service intensity relative to tied agents.



Table 6.1: Distribution Models in the EU

	Source(s)	Direct	Intermediaries: agents (tied and multiple)	Intermediaries: Brokers	Other (bancassurance, post office, etc)
Austria	CEA / BIPAR	40%	15%	35%	10%
Belgium	CEA / BIPAR / Interview	20%	10%	60%	10%
Bulgaria	FSC / CEA	10%	45%	45%	na
Cyprus	Stakeholder interview	50%	40%	10%	na
Czech Republic	na	na	na	na	na
Denmark	BIPAR	40%	na	15%	45%
Estonia	BIPAR	30%	10%	50%	10%
Finland	BIPAR / Interview	70%	10%	15%	5%
France	CEA	35%	35%	18%	12%
Germany	BIPAR / Interview	5%	40-45%	25-30%	25%
Greece	BIPAR	0%	70%	18%	12%
Hungary	Stakeholder interview	13%	67%	10%	10%
Ireland	BIPAR	25%	5%	70%	na
Italy	CEA	5%	85%	10%	na
Latvia	Stakeholder interview	25-30%	40-50%	20%	10%
Lithuania	BIPAR	na	na	33%	67%
Luxembourg	CEA / BIPAR / Interview	na	90%	10%	na
Malta	MFSA / BIPAR	15%	45%	40%	na
Netherlands	VVV / BIPAR / CEA	35%	10%	55%	na
Poland	CEA / BIPAR	25%	55%	15%	5%
Portugal	CEA / BIPAR	10%	60%	17%	13%
Romania	na	na	na	na	na
Slovakia	CEA / BIPAR	8%	40%	50%	2%
Slovenia	CEA / Interview	20%	70%	8%	2%
Spain	CEA / BIPAR / Interview	15%	50%	20%	15%
Sweden	BIPAR / Interview	10%	40%	5%	45%
United Kingdom	Interview / ABI	44%	8%	35%	13%

Key: VVV is Verbond van Verzekeraars; MFSA is Malta Financial Services Authority; ABI is Association of British Insurers; FSC is Financial Supervision Commission; BIPAR is La Fédération européenne des intermédiaires d'assurances (the European Federation of Insurance Intermediaries).

6.18 We wish to highlight two aspects of the above diversity. First, tied agents remain clearly the main distribution channel in Germany, Greece, Hungary, Italy, Latvia, Luxembourg, Poland, Portugal, Slovenia and Spain.

6.19 Second, there is a second group where independent intermediaries have in excess of one third of the distribution: Austria, Belgium, Bulgaria, Estonia, Ireland, Malta, the Netherlands, the Slovak Republic and the UK (with just the markets in Belgium, Ireland and the Netherlands having a clear majority of distribution handled by brokers). What is apparent from a comparison of these two listings is the absence of evident rhyme and reason to the two: the distribution models have developed in somewhat idiosyncratic fashion and, if there is to be convergence, it is not at all clear what that model would be (although it is likely that technology — particularly internet-based solutions — will act as a force for change).

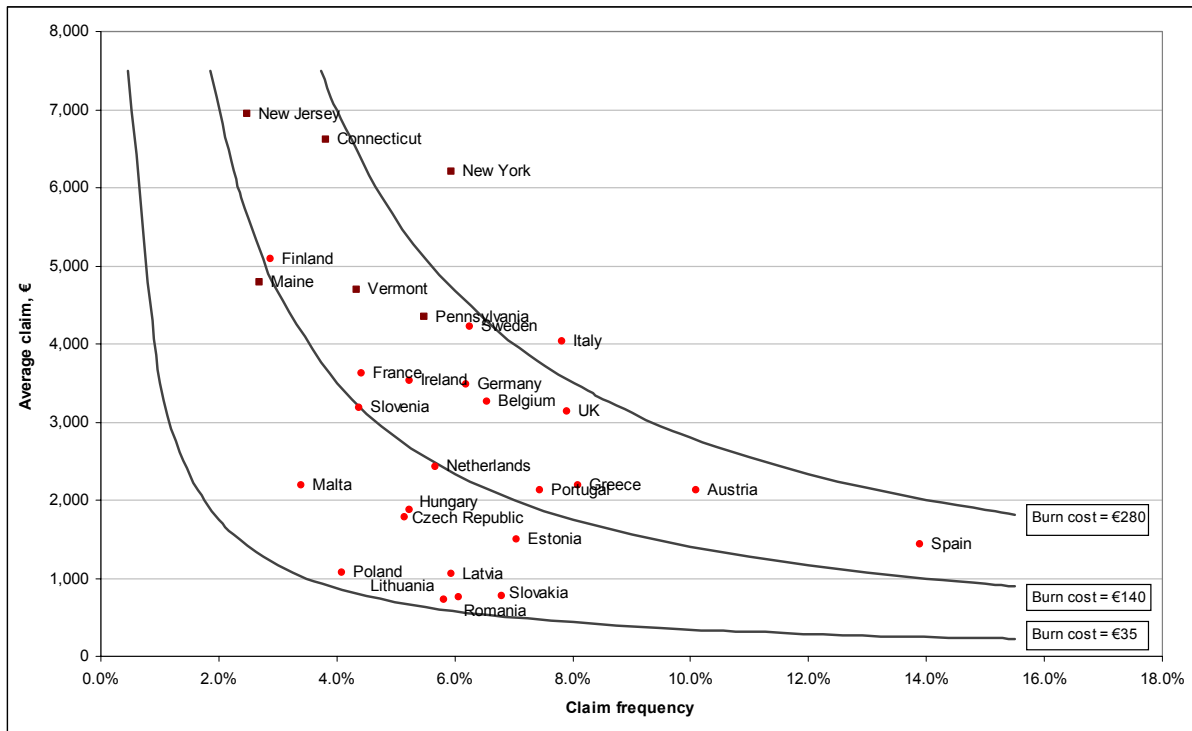
The Drivers of Premiums

6.20 The key drivers of cost in the insurance industry are claim frequency and average claim value. The product of these is the “burn cost” which is equivalent to the average claim per insured (regardless of whether that policyholder makes a claim or not).



6.21 The significant variation here is illustrated below in Figure 6.7 for M3PL (Bodily and Auto Liability in the USA).

Figure 6.7: The variation in Claim Frequency and Claim Value in the EU27 and the Selected USA States



Source: CEA, NAIC (Selected USA States), ABI (UK), IIF (Ireland), MFSA (Malta), MABISZ (Hungary), VVV (Netherlands), EE analysis

6.22 In the USA, claims frequency tends to be lower but average claim values significantly higher — the latter driven in particular by medical costs. There is also a clear divide between nearly all of the CEE Member States and the rest of the EU27 (Slovenia is somewhat closer to the rest of the EU, perhaps reflecting its higher GDP per capita; on the other hand, the Netherlands and Finland are relatively low).

6.23 In turn, claim frequency is affected by changes in variables such as accident and fatality rates and vehicle crime. The secular trend is towards declining accident rates and, in particular, in fatality rates. However, even if the fundamental drivers of claim frequency are tending to fall, the average cost of claims is tending to rise. (In addition, extensions in who is making claims can also make a difference — such as the trend towards claims by relatives in Poland).

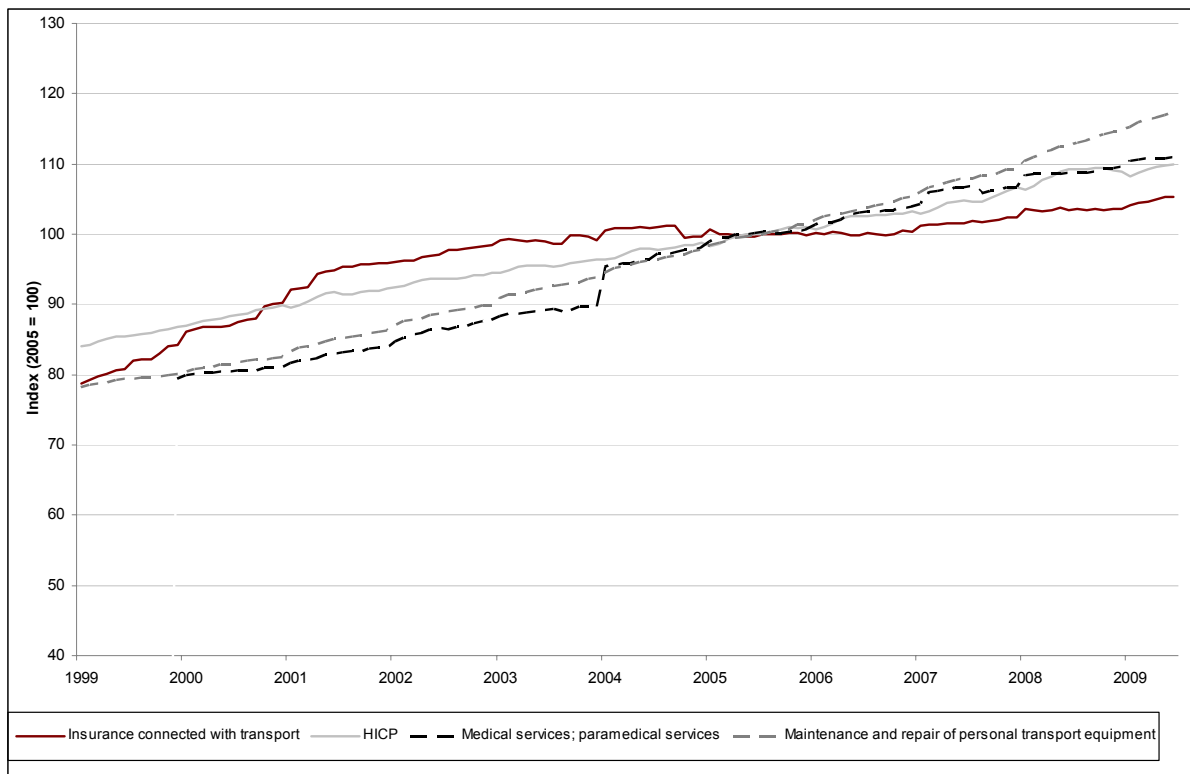
6.24 In part, this is the result of inflationary pressure (say with regard to medical expenses or vehicle repair costs) — this is illustrated in Figure 6.8 below.

6.25 However other sources of cost per claim increases include: the re-alignment of tariffs in respect of non-pecuniary losses (recently established in Romania; a points scale has been recently established in for example the Czech Republic and Spain); changes in the



capitalization of future (pecuniary) losses (e.g. through lower discount rates); increase in recourse actions by public health providers and state benefit agencies; and growth in levels of real income.

Figure 6.8: Evolution of the Motor Insurance and Related Indices for EU27, 1999–2009



Source: Eurostat

6.26 Figure 6.8 above describes the evolution in various component indices within the HICP:

- Most importantly, “Insurance connected with transport” relates to changes in the motor insurance premium to insure the average car included within the HICP for both M3PL and own damage. Adjustments are made to reflect changes in the vehicle to ensure consistency over time. The calculation is on the basis of an individual who has not made recent claims. This provides an excellent proxy for average motor insurance premiums.
- “Maintenance and repair of transport equipment” combines the change if the labour cost and the cost of spare parts are relevant to private vehicles.
- “Medical services and paramedical services measures” is included (i) as a reference point (since in the EU27 countries emergency medical care will typically be borne by the public purse rather than the private insurer); (ii) as a proxy for medical services such as rehabilitation where the insurer may be liable; and (iii) to be consistent with the treatment of the Selected USA States.



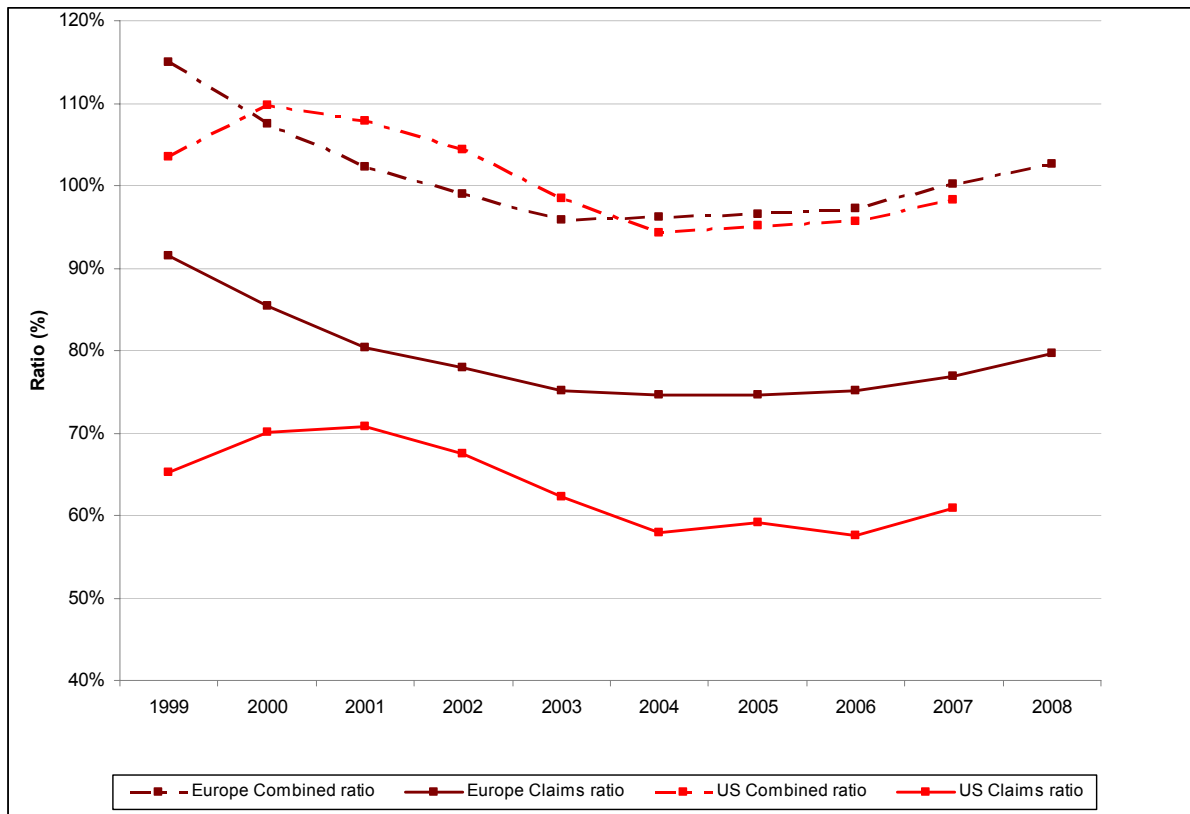
- 6.27 The relative movements in these price indices inform us about the strength of pressure being exerted on the insurance industry's profitability. Looking across all of the EU27, motor insurance prices rose faster relative to the other indices between 1999 and 2003, but have since declined in real terms.

The Evolution of Profitability in Motor Insurance

- 6.28 A helpful way to understand the profitability of insurance is to investigate the level and dynamism of the following ratios:
- (a) The claims ratio: calculated as claims incurred (including changes in relevant provisions) divided by premiums earned in a year. The higher this ratio is, the greater the proportion of revenue paid out to policyholders (i.e. a lower ratio is good for the profitability of insurers). It can be seen as a measure of pricing efficiency.
 - (b) The expense ratio: calculated as the sales and administration costs divided by premiums earned. This ratio can be seen as a measure of administrative efficiency.
 - (c) The combined ratio: is the simple addition of the two. When this ratio exceeds 100 per cent, the result is that the insurer is losing money at the underwriting level. (Insurers invest premiums received and can use the resulting gains to fund such losses, at least to a degree.)
- 6.29 These ratios can typically be calculated either before (gross) or after (net) of that element of insurance sold to policyholders (directly written cover) that is subsequently remitted to reinsurers. In this report we have preferred to focus upon net ratios (as these will more directly determine an insurer's profitability) unless the time sequence available for the gross ratios has been substantially greater. Figure 6.9 below compares the evolution of the net claims and combined ratios in motor insurance in the EU27 (as a whole) and in the USA.



Figure 6.9: Evolution of the Combined and Claims Ratios for Europe (EU27 and EFTA combined) and the USA, 1999–2008



Source: CEA, CEIOPS, NAIC, EE analysis

- 6.30 We have already noted that there was an apparent real appreciation in motor insurance values between 1999 and 2003. Indeed, the claims ratio in the EU27 motor insurance market experienced some improvement in this period, falling from over 90 per cent to about 75 per cent over this time before stabilising at this latter level. However, the combined ratio was above 100 per cent until 2002. Improved efficiency of the industry (measured relative to premiums) and the secular decline in claim frequencies also contributed to this decline.
- 6.31 Since 2003, the real depreciation in premiums (at least in some of the most significant markets such as the UK and Germany) has offset a continuing rise in claims frequency so that the claims ratio has stabilised. The expense ratio has increased also (i.e. this implies that wage inflation has exceeded efforts at improving productivity) so that the combined ratio has crept back upwards in the EU.
- 6.32 The picture from the USA is rather similar. However, the claims ratio is lower in the USA whilst the expense ratio is higher. Second, there has been increased convergence in the combined ratios over the period.
- 6.33 One explanation here would be that this may be symptomatic of increased globalisation of the insurance industry.



- 6.34 There is evidence here for the insurance cycle whereby insurers have periods both of “excessive” competition and of recuperation when reserves can be accumulated — at least in theory — to fund the former. The slight increases in the combined ratio in 2006, 2007 and 2008 suggest the industry may be about to enter into the next ‘reduced profit’ cycle.

EU27 — Country by Country

Austria

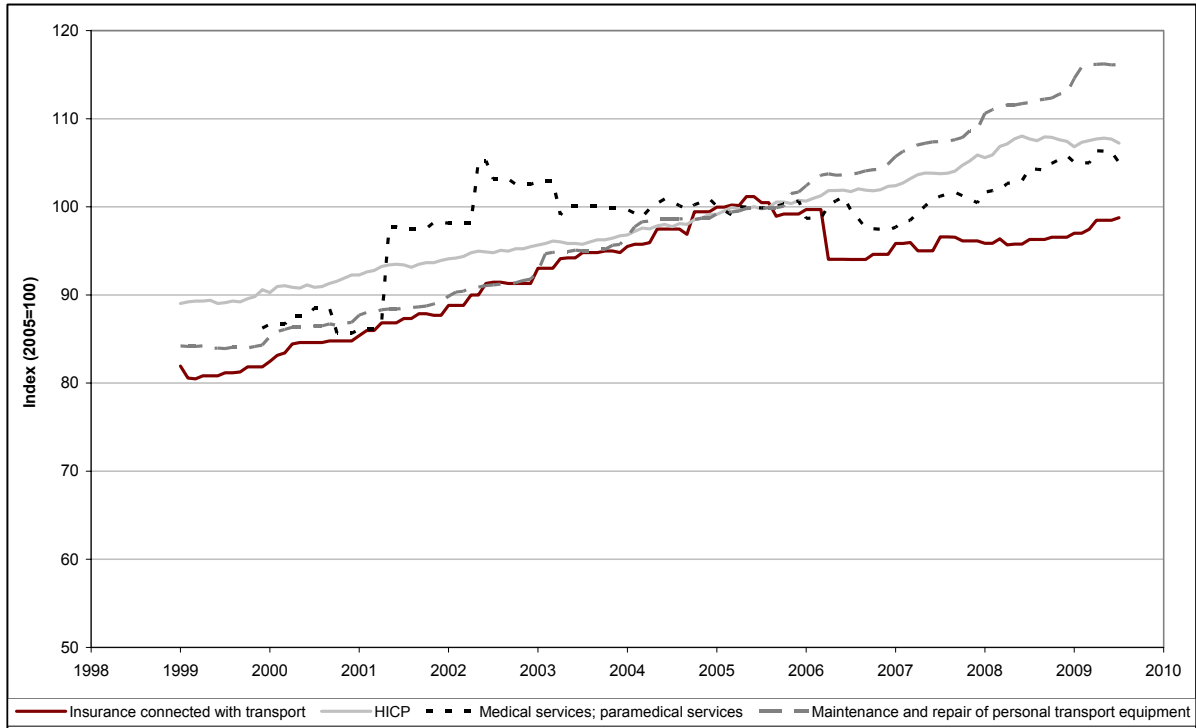
- 6.35 Our calculated HHIs for the M3PL and comprehensive insurance markets in Austria are similar, although the M3PL market is slightly less concentrated, with a CR5 figure of 66 per cent compared with 69 per cent for comprehensive. The HHIs that we have calculated, at or around 1,000, are generally taken to indicate a market on the margin being unconcentrated and having a modest degree of concentration. In terms of distribution, the data available to us indicates relatively high shares for independent intermediaries, at approximately 35 per cent.

Premiums

- 6.36 Figure 6.10 below shows the evolution of motor insurance prices in Austria. Between 1999 and 2005 motor insurance experienced steady price inflation, moving in line with the cost of maintaining and repairing motor but at a faster rate than general inflation (HICP) and the cost of medical services. After 2006 the price of motor insurance fell below its 2005 levels and had not recovered by 2009. Data available on average M3PL premiums, which are stable between 2004 (€309) and 2006 (€310), suggest that the sharp decline depicted in 2006 may be the result of re-indexing in the Eurostat data rather than a real drop in the price of motor insurance.



Figure 6.10: Evolution of Motor Insurance and Related Indices in Austria, 1999–2009



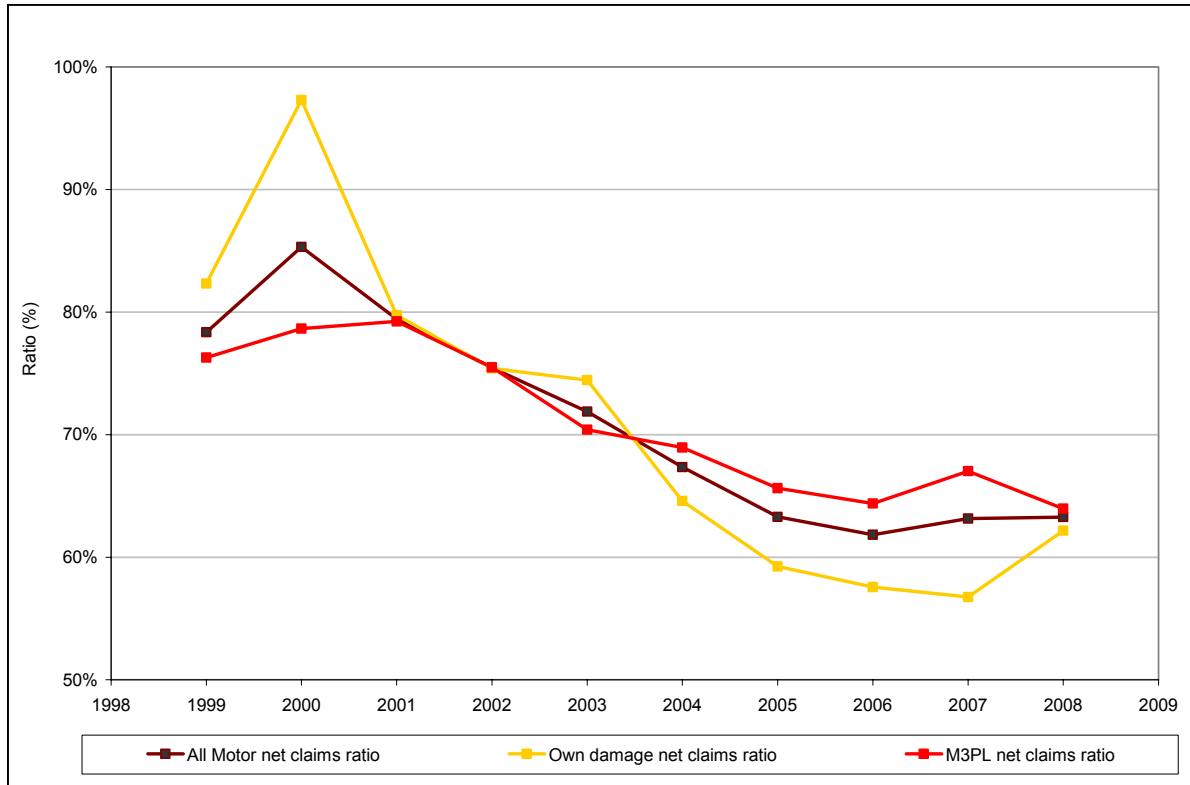
Source: Eurostat

Profitability

6.37 The claims ratio for all motor insurance has experienced an improvement since 2000, declining from 84 per cent to 63 per cent. This coincides with the inflation of all motor insurance prices depicted in Figure 6.10 above, although examination of aggregate claims and premiums data indicate that the decline was due to both increasing aggregate premiums *and* declining aggregate claims.



Figure 6.11: Evolution of the Claims Ratio in Austria, 1999–2008



Source: Finanzmarktaufsichtsbehörde (Austrian Financial Market Authority), EE analysis

6.38 Motor vehicle thefts as a proportion of the stock of vehicles in Austria have increased since 1998, with a spike in 2000 of more than 50 per cent from 1999. This explains the jump in the claims ratio for own damage cover depicted above. Road accidents have remained relatively stable, declining somewhat since 2003 (annual average percentage change of less than two per cent). This decline may have contributed to the fall in the M3PL and other motor claims ratios. The various claim ratios peaked between 2000 and 2001 due to spiking claims in 2001. The claims ratios for motor insurance subsequently declined steadily for the rest of the period, although own damage experienced deterioration in profitability in 2008.

6.39 The decline in the M3PL claims ratio is also reflected in the declining burning cost (the product of the average frequency and the average claim value; also equivalent to the average claim per policy, regardless of whether or not a claim was made on that policy) which fell by eight per cent between 2004 and 2006. This is likely to be the result of the increase in the price of motor insurance relative to the cost of medical services over this time, as depicted in Figure 6.10.

6.40 The combined ratio has moved between 94 per cent and 84 per cent between 2003 and 2008, with the latest year at 87 per cent. Insurers in Austria have therefore been making an underwriting profit over all of this period. As such, it has been one of the most attractive markets for motor insurers in the EU27.



Belgium

- 6.41 Both comprehensive and M3PL market segments rank as the 10th most competitive and 10th least concentrated within the EU27 in terms of the market structure of the insurers. The HHI is just under 1,000; this is typically taken to indicate that the industry environment is not concentrated.
- 6.42 With respect to distribution, approximately 20 per cent is distributed directly. In contrast, over 60 per cent of non-life insurance is sold through independent intermediaries (this is markedly higher than nearly any other Member State, save Ireland). *Prima facie*, this should promote competition by reducing the search costs (e.g. for the most competitive or most appropriate policy) by consumers.
- 6.43 In a structured interview, a market participant estimated the switching rate (i.e. where a policyholder changes insurer) at between 20 and 30 per cent (which, if correct, would be towards the high end of European experience). Those insurers less reliant than the interviewee on independent brokers for distribution were thought to experience rates of switching below this level. Again, this indicates the role of independent intermediaries in identifying competitively priced products.
- 6.44 A key change in the market is the emergence of direct only insurers (selling only over the web and phone), although these are mostly linked to established financial services providers (i.e. these are not standalone operations).

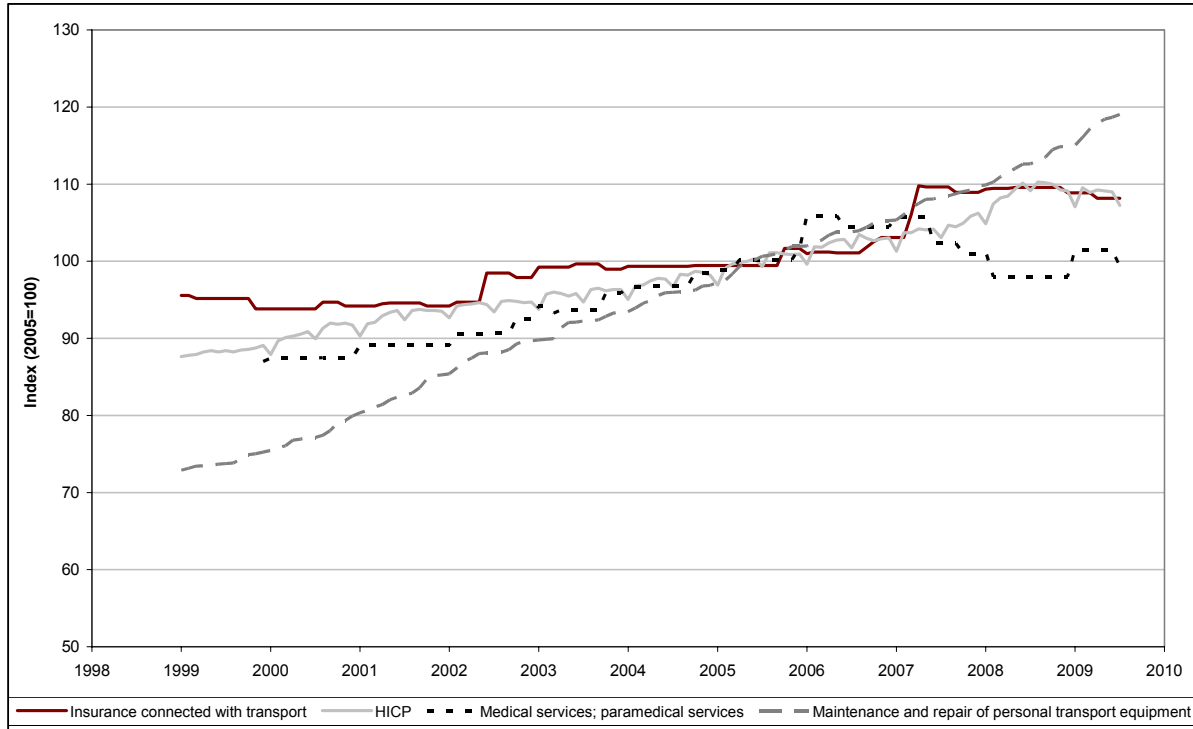
Premiums

- 6.45 In general, between 1999 and 2006 the inflation in the cost of motor insurance was significantly slower than the rate of general inflation and inflation in medical expenses. In particular, inflation in the cost of motor insurance was by far surpassed by inflation in maintenance and repair costs of personal transport equipment over the entire period. Assuralia (the Belgian insurance industry association) cited increased competition and regulatory pressure as key drivers behind the fall of M3PL premiums in real terms through to 2001.⁶⁶ A key factor is that contracts do not include any automatic indexation of prices (which softens automated renewal provisions).
- 6.46 The relative stability in motor premiums is matched by data available from the CEA on average M3PL premiums. The average M3PL premium was €305, rising to €319 in 2004 before dropping back to €312 in 2006. A number of the direct-only insurers in Belgium are owned by banks — some may be willing to use motor insurance as a means of customer acquisition with the decision-making on pricing heavily influenced by the anticipated banking opportunities.

⁶⁶ Assuralia annual report (2007).



Figure 6.12: Evolution of the Motor Insurance and Related Indices in Belgium, 1999-2009



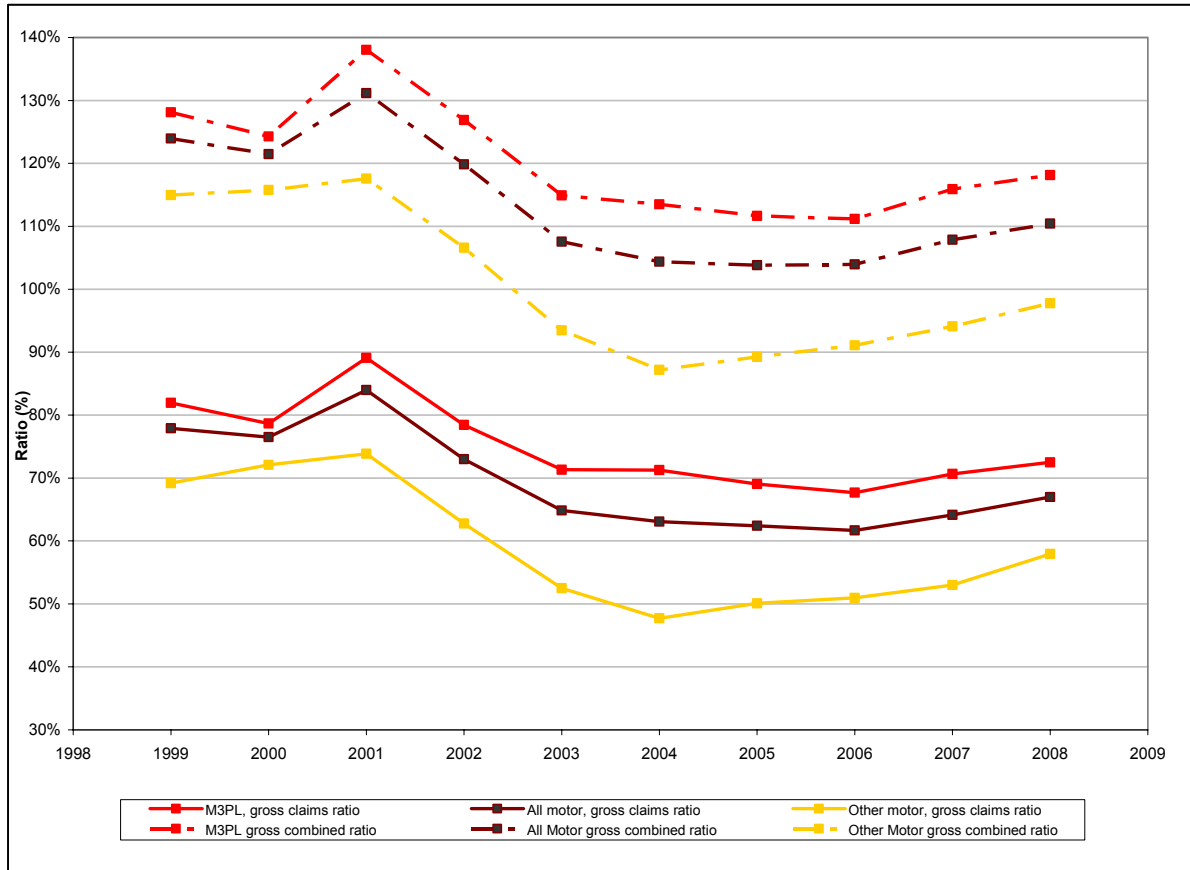
Source: Eurostat

Profitability

- 6.47 Between 2001 and 2004, the net claims ratio for M3PL dropped from over 80 per cent to 56 per cent due to a decline in claim frequency (the reduction in road accidents and road fatalities over the period was 8 and 22 per cent respectively). The net claims ratio for M3PL has remained relatively stable at this level from 2004 onwards.
- 6.48 Comparing the gross (i.e. before reinsurance) claims ratio for M3PL and for comprehensive cover, the latter has been consistently below the former over the period. The fall in this ratio between 2003 and 2004 may in part have been due to the ongoing reduction in motor theft.
- 6.49 Despite this improvement, motor insurance as a whole had a combined ratio of 105–120 per cent between 2002 and 2008 (and higher before then). An important factor here is the relatively high expense ratio in Belgian motor insurance, e.g. above 40 per cent in M3PL. This may be explained in part by the role of intermediaries (which drives up distribution costs).



Figure 6.13: Evolution of the Claims and Combined Ratios in Belgium, 1999-2008



Source: Commission Bancaire, Financiere et des Assurances (CBFA, the Belgian Supervisor), EE analysis

Bulgaria

6.50 Our CR5 and HHI data indicate that the M3PL segment is not significantly concentrated. The comprehensive sector is only slightly more concentrated. Distribution through tied and multi-tied agents and independent intermediaries have are broadly equivalent in their share in the market (at about 45 per cent each).

Premiums

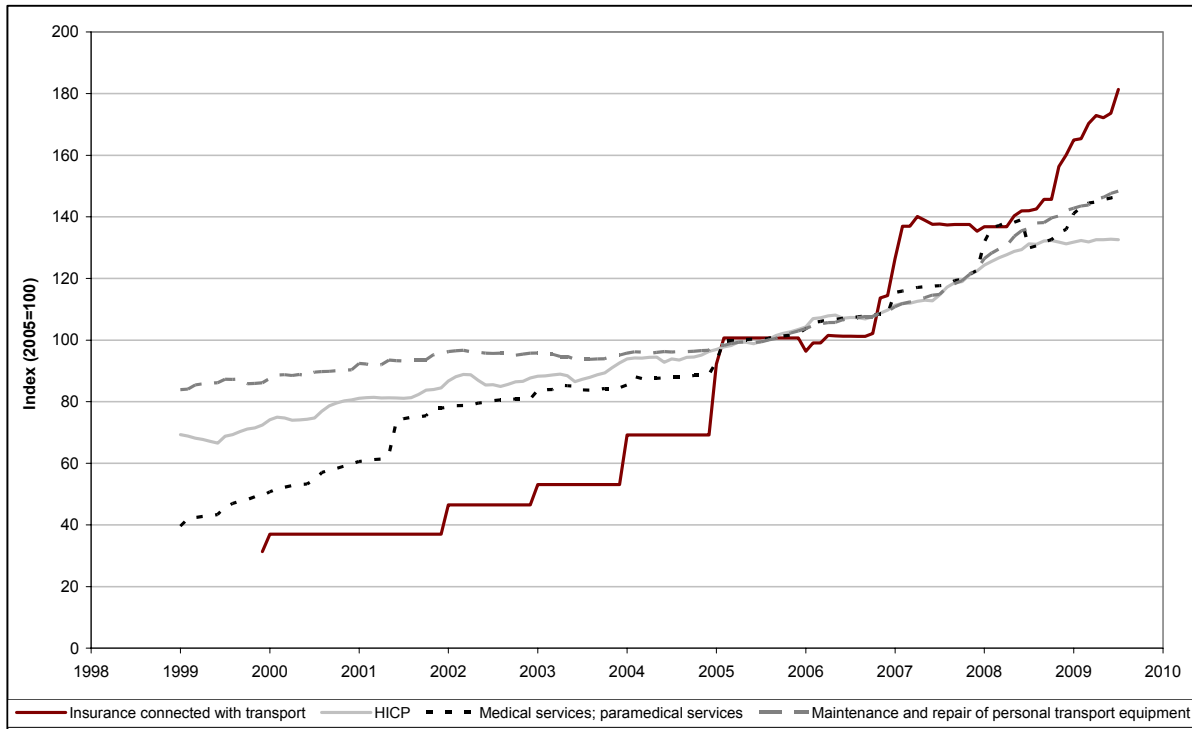
6.51 There has been significant inflation in motor insurance in Bulgaria since 2002, which has increased at a consistently faster rate than the other three indices. Until 2003 the supervisor set the final price of M3PL insurance. Transitional arrangements from then through to full liberalisation in 2006 involved technical costs being stipulated by the supervisor but with the final price to customers being set by insurers (reflecting idiosyncrasies in their costs levels and business development choices).

6.52 Significant uplift in compensation limits explains the “stepping” in the price inflation after 2007; however, M3PL average premiums held fairly steady in 2007 despite these increases. The Bulgarian Financial Supervision Commission (FSC) considers M3PL



prices to be fairly well clustered, without any insurers adopting aggressive market-share building strategies on a consistent basis.

Figure 6.14: Evolution of Motor Insurance and Related Indices in Bulgaria, 1999–2009



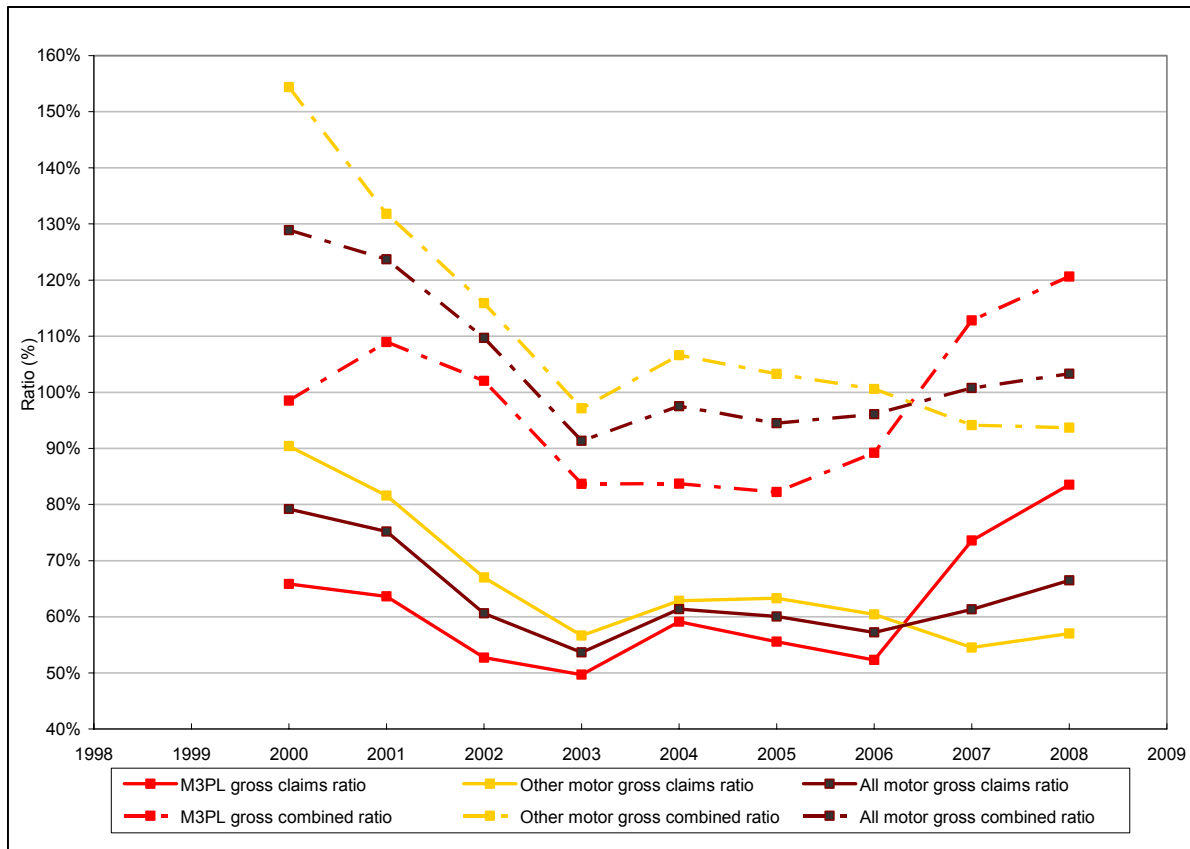
Source: Eurostat

Profitability

6.53 Looking at the claims ratio for M3PL post-liberalisation, it has increased, whilst that for other motor insurance has remained flat or decreased. In both cases aggregate premiums and claims have increased over the period (the growth in M3PL premiums owing to increased motorisation and increases in proportion of population covered), but with claims increasing at a faster rate than premiums for M3PL, and vice versa for own damage (i.e. other) motor insurance.



Figure 6.15: Evolution of the Claims and Combined Ratios in Bulgaria, 2000–2008



Source: FSC, EE analysis

- 6.54 The net expense ratio (for all motor insurance) has decreased from about 50 per cent in 2000–2002 to 37 per cent by 2008. This means that motor insurance has moved from heavy losses to a period of modest profitability at the underwriting level (2003–2006) but has made a significant loss in 2008 (driven largely by the performance of the M3PL segment). The market response to this loss has been an increase in prices in late 2008 and 2009. This is evident in Figure 6.14 above.
- 6.55 The implication is that liberalisation (once disentangled from the price inflation “forced” by increases in the compensation levels to bring Bulgaria more closely into line with the rest of the EU27) has increased competition in the Bulgarian market and, if all else had remain constant, would have reduced premiums. This is also the view of the FSC.
- 6.56 Since liberalisation, new factors such as age, experience, claims history, and location have influenced the setting of premiums. The geographical scope of cover has also increased. A factor in the loss in M3PL may have been the combination of this with (what proved to be) inadequate data. For example, in green card insurance (e.g. for extra-Bulgaria driving pre-accession), a single company held all of the data (i.e. it had previously had a monopoly on this insurance) so that the correct setting of M3PL tariffs was made more challenging from a technical perspective.



- 6.57 Motor vehicle theft as a proportion of the total stock of cars has been historically low in Bulgaria (at least in terms of what is recorded), and between 2001 and 2006 it declined steadily (from 0.1 per cent to 0.03 per cent). It is therefore likely that this is not a significant driver of claims and premiums.
- 6.58 Road accidents, on the other hand, appear to have had a considerable influence. The number of road accidents involving personal injury has increased steadily since 2001, with the number of fatalities spiking by nine per cent in 2006 to coincide with the increase in the M3PL claims ratio.

Cyprus

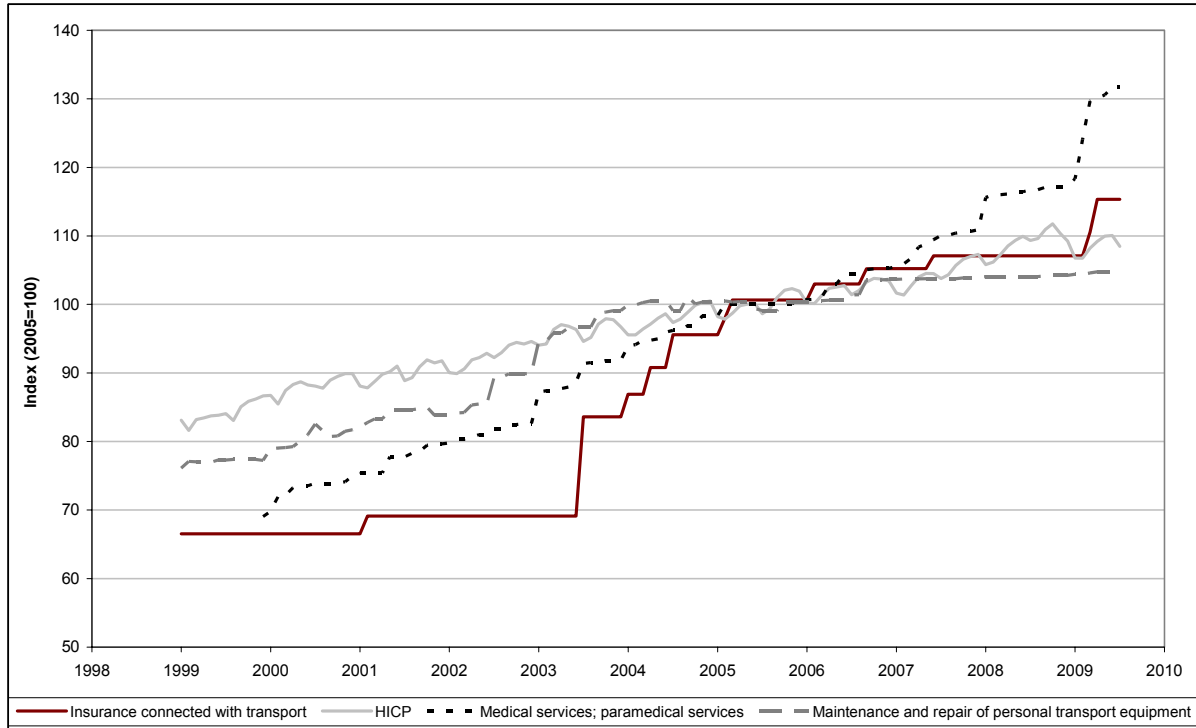
- 6.59 On the basis of our HHI and CR5 values, the motor insurance market is not at all concentrated. On the other hand, the distribution of motor insurance is mostly either direct or through networks of tied agents. Independent intermediaries are not common. The important role for tied agents (and the lack of one for independent intermediaries) means that the onus on the search for an insurer rests with the policyholder and will tend to reduce price competition

Premiums

- 6.60 From the beginning of 2003 until 2007 inflation in the cost of motor insurance increased considerably, outstripping inflation in other key areas including medical and paramedical services costs, maintenance and repair costs of personal transport equipment and in general consumer prices.



Figure 6.16: Evolution of the Motor Insurance and Related Indices in Cyprus, 1999-2009



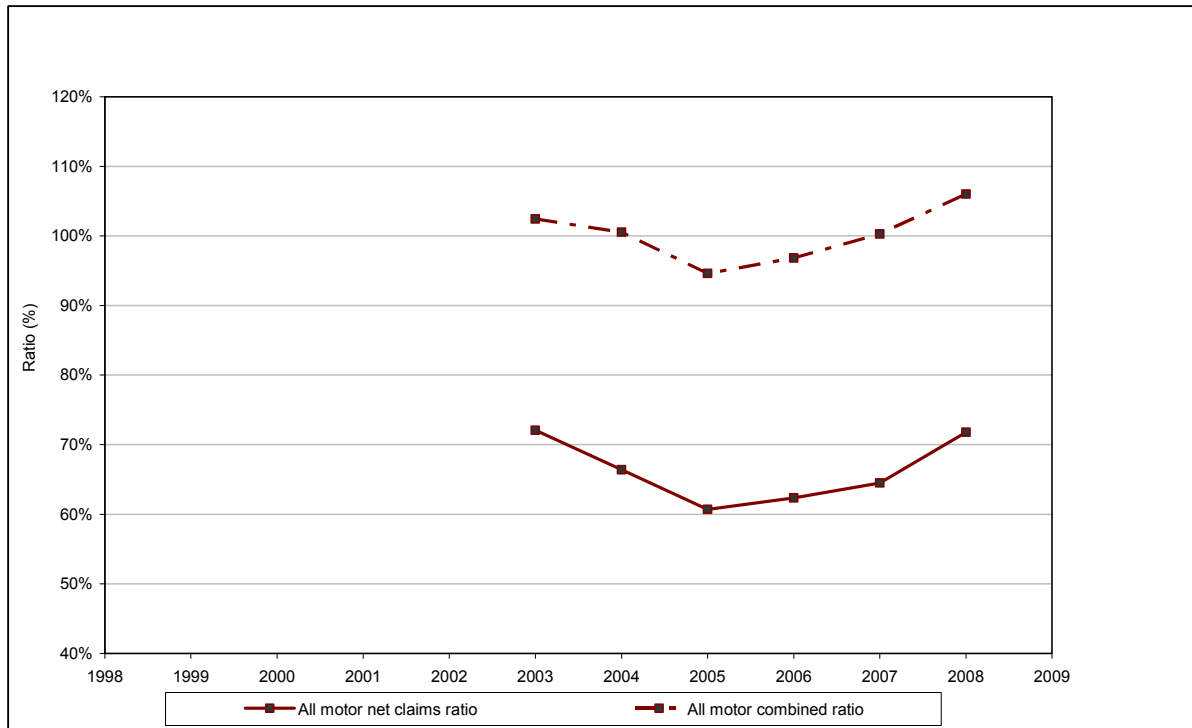
Source: Eurostat

Profitability

- 6.61 Between 2005 and 2008, the net claims ratio increased from 61 per cent to 72 per cent despite the significant increases to the costs of motor insurance (for an average car) at the time as shown above.
- 6.62 This increase in the net claims ratio was largely responsible for the deterioration in underwriting profits at this time, with the combined ratio exceeding 100 per cent in both 2007 and 2008. Increased claims frequency was a key driver, e.g. there was a 23 per cent increase in the number of road accidents in 2004–2006.



Figure 6.17: Evolution of the Claims and Combined Ratios in Cyprus, 2003-2008



Source: Insurance Companies Control Service of Cypriot Ministry of Finance, EE analysis

Czech Republic

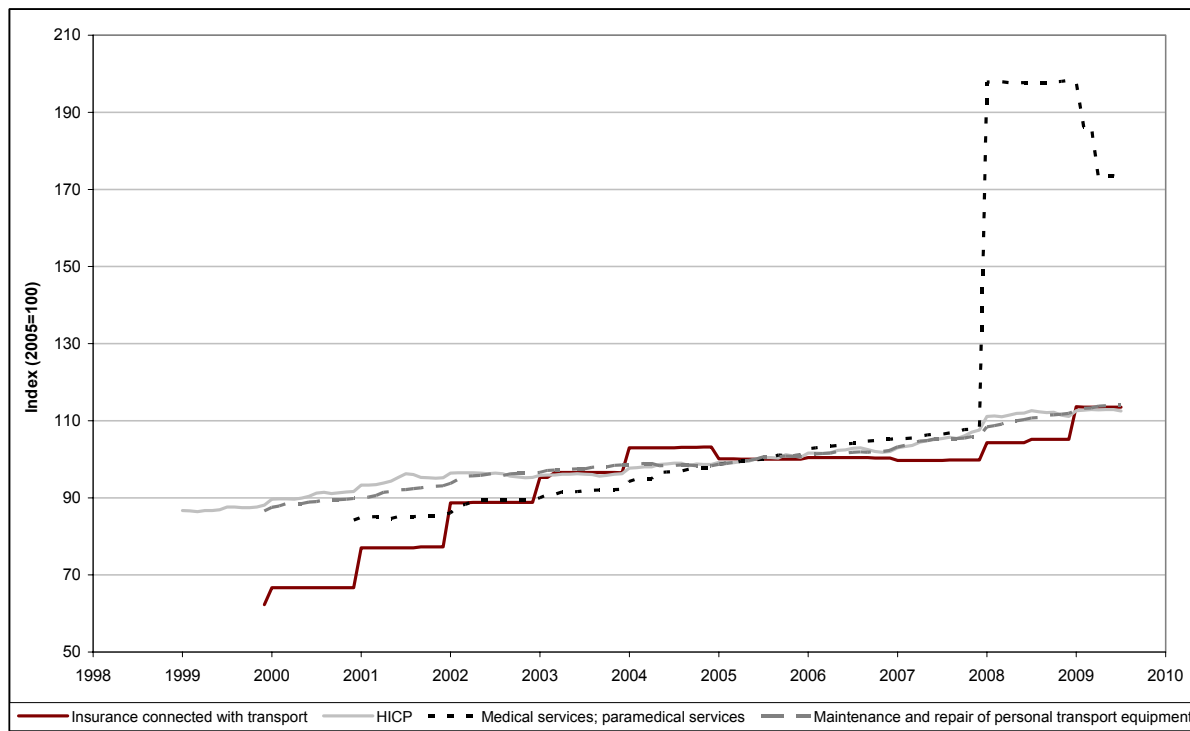
6.63 Both the M3PL and comprehensive insurance markets are highly concentrated, and the Czech Republic is ranked as 22nd and 21st respectively in the EU27 for these markets in terms of concentration. The HHI calculated for both markets indicate a high degree of concentration (in each market, the two largest players have a combined share of 55–60 per cent). We do not have data on the distribution channels used in the Czech Republic.

Premiums

6.64 Until 2005 the price of motor insurance grew more rapidly than general consumer inflation (HICP), the cost of medical services and motor repair costs, in part reflecting increasing compensation limits. After this date, however, motor insurance inflation has remained relatively stable up to 2008.



Figure 6.18: Evolution of the Motor Insurance and Related Indices in the Czech Republic, 1999–2009



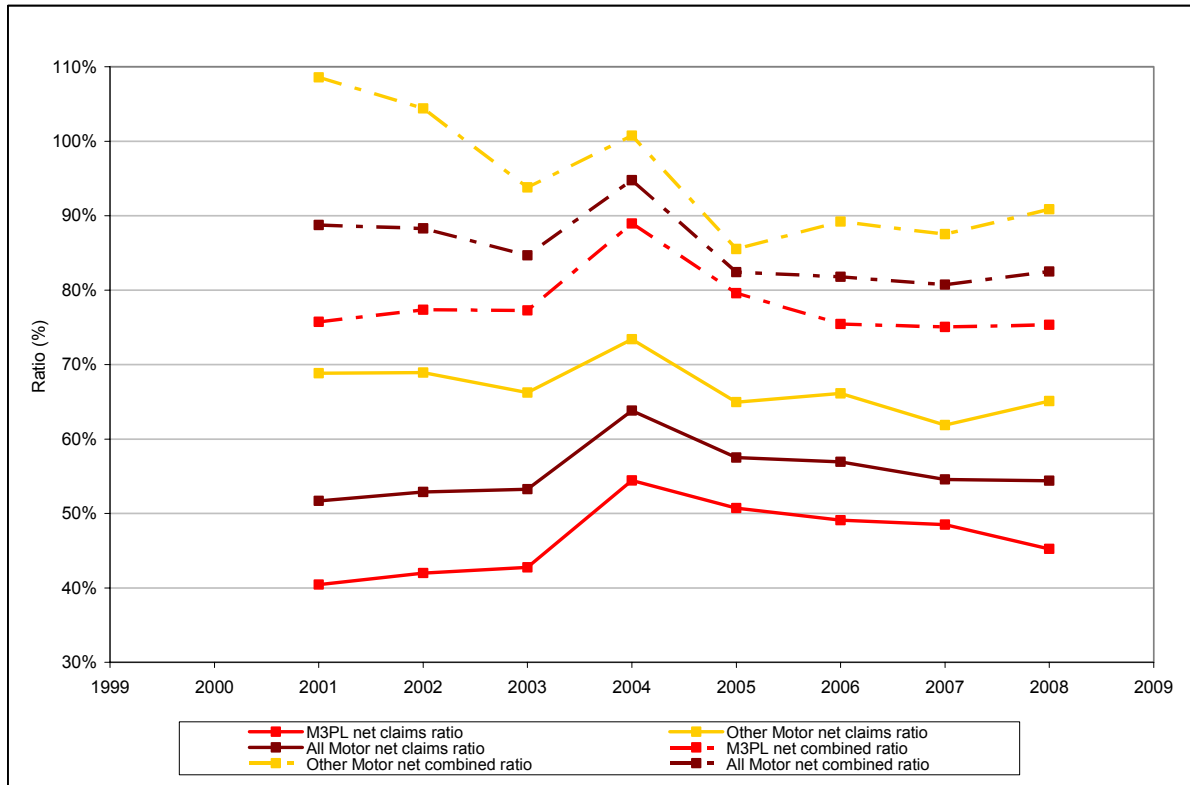
Source: Eurostat

Profitability

6.65 The net claims ratios for M3PL and comprehensive motor insurance have behaved broadly in line with each other, albeit at notably different levels of profitability. The Czech Republic is one of a small minority of Member States where the profitability of M3PL exceeds that of own damage covers. These covers can be purchased discretely in the Czech Republic.



Figure 6.19: Evolution of the Claims and Combined Ratios in the Czech Republic, 2001–2008



Source: Česká národní banka, EE analysis

- 6.66 The combined ratio for both M3PL and comprehensive shows that these segments have made an underwriting profit in most years (own damage cover failed to break even in 2001–02 and 2004).
- 6.67 Claim frequency in M3PL has, in fact, declined steadily over the period, and increases in the average cost of claims (linked to changing compensation limits) have not fully offset this, particularly after 2006. Both the number of road accidents involving personal injury and the number of road fatalities have declined since 2003.
- 6.68 A key influence in the decline in the claims ratio for comprehensive cover after 2003 is the secular decline in motor thefts measured as a proportion of the total stock of vehicles in the Czech Republic.

Denmark

- 6.69 Based upon the HHI, the two motor insurance markets in Denmark exhibit a moderate degree of concentration (the CR5 of both markets is above 70 per cent). In terms of distribution, only 15 per cent is through independent intermediaries.



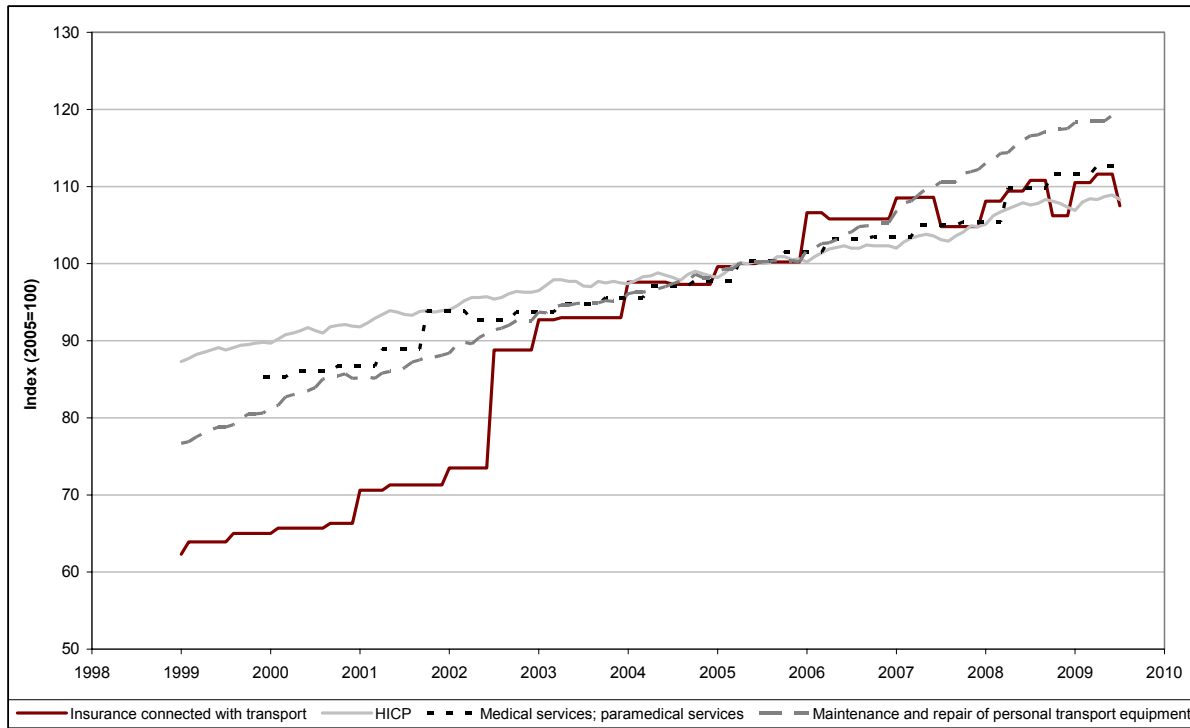
Premiums

- 6.70 Inflation in the cost of motor insurance has increased broadly in line with the other measures since the end of 2004. Insurance companies adjust premiums automatically using an indexation scheme (i.e. one that involves adding an annual index fee to insurance premiums). The uplift in premium values prior to this reflects two important factors: first, in 2002–03, the Danish Liability for Damages Act was passed with effect from 1 July 2002 and raised personal injury compensation levels (with insurers anticipating higher future claim values by raising premiums); second, Danish insurers have focused more closely on the profitability of individual products in this period (an insurer interviewed by us indicated that previously M3PL insurance had been treated as a loss leader by at least some insurers as a means of securing customers).
- 6.71 This closer alignment with the rate of inflation in the cost of motor insurance and maintenance and repair costs coincided with the investigation and ban imposed by the Danish Competition Commission on the use of the EDP-based system of estimating damage (which both insurance companies and repair shops used to estimate the insurance damages to cars).⁶⁷ This system covered most of the market (except for independent car painting shops) and meant that for each auto repair shop prices were fixed with the same value charged to all insurance companies.

⁶⁷ Konkurrencestyrelsen (the Danish Competition Authority).



Figure 6.20: Evolution of the Motor Insurance and Related Indices in Denmark, 1999-2009



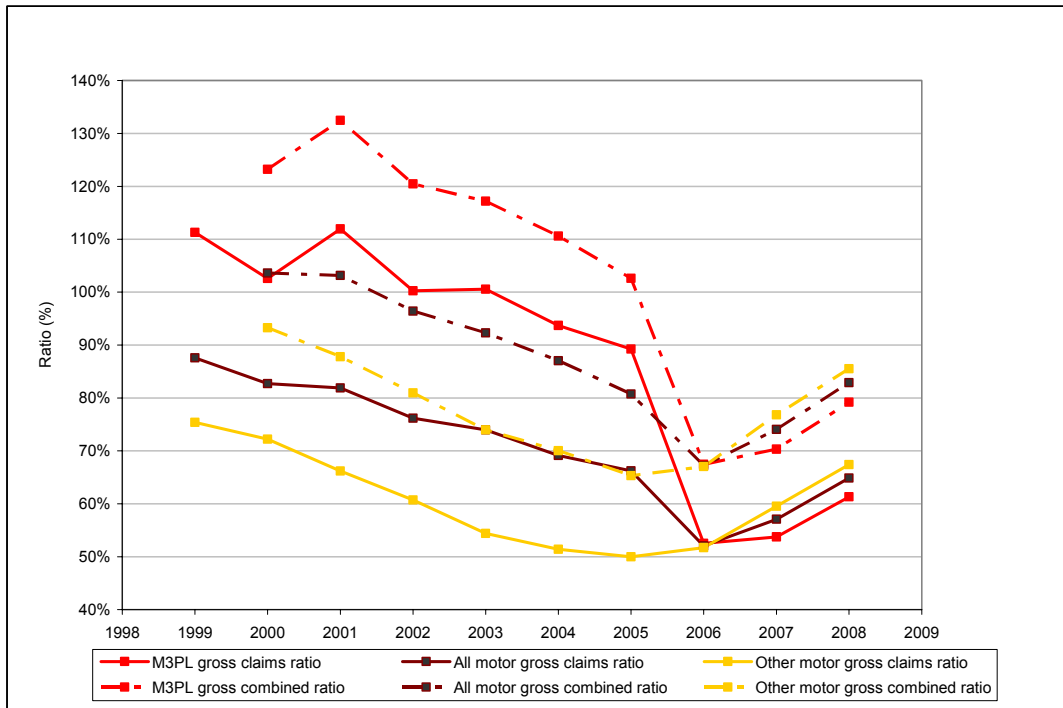
Source: Eurostat

Profitability

- 6.72 Until 2006, not only was the gross claims ratio for own damage cover lower than that for M3PL, it was also less volatile. Over a majority of the period, the claims ratio for such comprehensive cover declined, falling from 75 per cent in 1999 to 50 per cent in 2006. About 85 per cent of Danish cars are covered by the additional comprehensive cover (i.e. over and above M3PL).
- 6.73 The M3PL claims ratio followed a similar downward with a spectacular reduction in 2006 which coincided with a 17.5 per cent fall in the aggregate value of claims. In part, this represented an exceptional release of reserves in this year — in this sense, the claims ratio is probably over-stated in the prior years and certainly care is required in comparing 2006 and the surrounding years. However, given that the claims ratio did not return to the pre-2006 levels in 2007, this is clearly not the whole explanation. In fact in September 2005, Denmark introduced a new penalty point system that gave drivers penalty points for dangerous violations — three penalty points within three years would trigger suspension of one's licence (two points for young drivers). Denmark recorded the lowest level of road fatalities in 2006 since 1937. Although fatalities have not kept this low, accident rates have not gone back to the prior levels.
- 6.74 We have noted above that Danish insurers have focused more closely on the profitability of individual products in this period — and the claims and combined ratios of M3PL and own damage cover have indeed converged.



Figure 6.21: Evolution of the Claims and Combined Ratios in Denmark, 1999-2008



Source: *Finanstilsynet (Danish Financial Supervisory Authority), EE analysis*

Estonia

6.75 The market structure in M3PL market remains quite concentrated with the two market leaders having a combined share of 49 per cent against a number three operator of just 10 per cent; in comprehensive the top four operators have markedly more equal shares. Notwithstanding this, both markets exhibit a moderate degree of concentration. In terms of distribution, the large share of independent intermediaries (50 per cent) compared with tied agents (10 per cent) should promote the motor insurance market's competitiveness as experienced by the actual consumers.

6.76 The recent growth of the motor insurance market in Estonia is being driven by increased motorisation (the value of the motor insurance market in 2008 was more than four times that of the decade before).

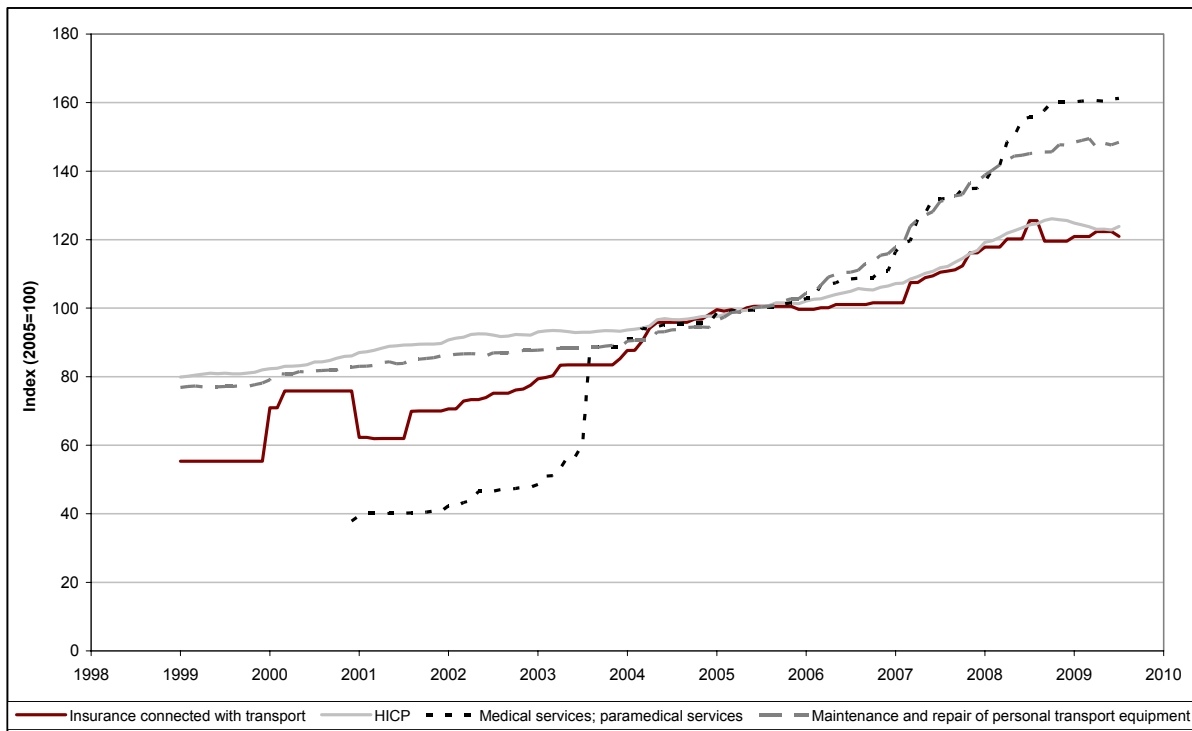
Premiums

6.77 Figure 6.22 below shows the evolution of motor insurance prices in Estonia. Motor insurance prices have increased more slowly than general consumer inflation and the cost of vehicle repair and maintenance since 2006. Data obtained from the CEA indicate that average M3PL premiums in Estonia have increased from €97 in 2002 to €116 in 2007 (which corresponds fairly neatly with the Eurostat data). There has been further price inflation in 2008.



6.78 The balance of opinion of market participants surveyed and interviewed considered that competition in the M3PL market had been promoted by liberalisation and that as a result premiums (all else being equal) were lower than they would otherwise have been. As can be seen from Figure 6.23 below, the claims ratio has spiked upwards since 2004 which is consistent with this interpretation.

Figure 6.22: Evolution of the Motor Insurance and Related Indices in Estonia, 1999–2009



Source: Eurostat

6.79 The cost of medical and paramedical services have increased sharply since 2001 and, together with vehicle maintenance after 2005, continued to grow more rapidly than motor insurance. These trends have influenced the average cost of claims M3PL which has increased steadily from €1,117 in 2003 to €1,503 in 2006, at an average annual rate of 10.5 per cent.

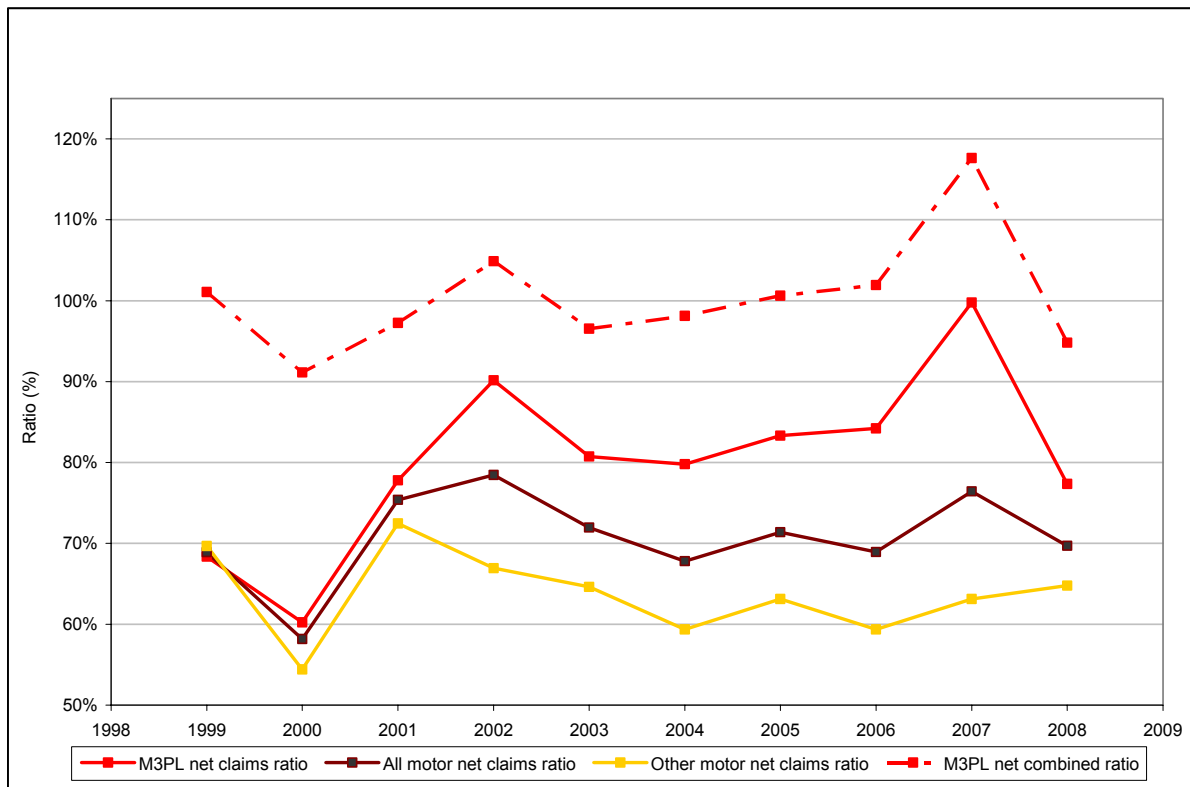
Profitability

6.80 The movement in the M3PL claims ratio since 2002, depicted in Figure 6.23 below, is the result of a drop in the average cost of claims from 2002 to 2003, and then a subsequent increase in premium levels (as above) along with a rise in the M3PL claims frequency (from 6.0 per cent in 2002 to 7.0 per cent in 2007). The claims ratio, however, does not increase until after 2004 due to a relatively large rise in average premiums between 2003 and 2004. A rise in the claims frequency from 2003 to 2006 is likely to be the result of the increase in the number of road accidents in Estonia over this period, at an average annual rate of 10.3 per cent.



6.81 The ongoing inflation in premiums in 2008 has driven the M3PL claims ratio downwards in that year (although we do not have data on claims frequency in 2008, it seems likely to have fallen back somewhat).

Figure 6.23: Evolution of the Claims and Combined Ratios in Estonia, 1999–2008



Source: *Finantsinspektsioon (Estonian Financial Supervision Authority), EE analysis*

6.82 The claims ratio for other (non-M3PL) motor insurance has followed a similar trend, but with a flattening out between 2005 and 2008. Both aggregate claims and premiums have increased over this period, but with claims at a slower rate between 2003 and 2004 and again between 2006 and 2007.

6.83 The combined ratio for the M3PL segment has moved around break-even between 2001 and 2006, before the spike in the claims ratio in 2007 resulted in a significant underwriting loss in that year. The uplift in premiums in 2008 is in part, therefore, likely to be a market response aimed at re-building profitability.

6.84 Expense data for the own damage segment is not available. However, if we assume that the relative scale of operating costs to premiums matches that of the non-life sector as a whole in Estonia, then motor insurance has been profitable in all years since 2003 (with the exception of 2007 when a very small underwriting loss would have been recorded).



Finland

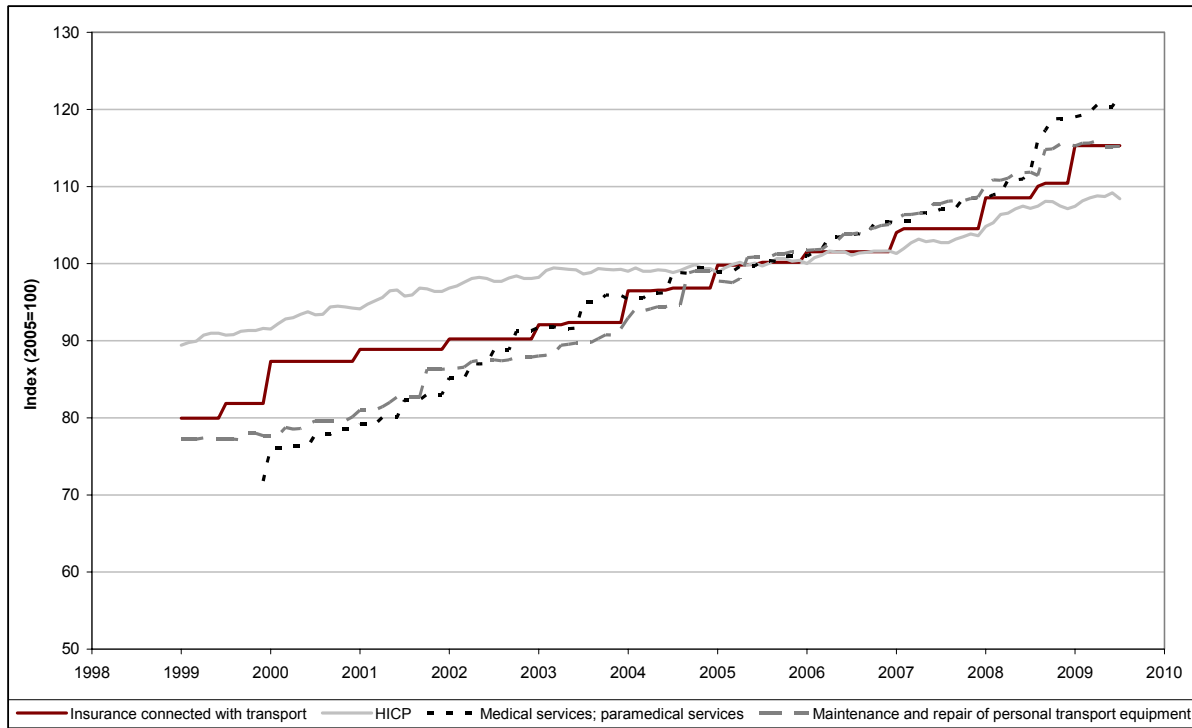
- 6.85 Both M3PL and non-M3PL motor markets in Finland rank as a moderately concentrated markets in the EU27. In terms of the distribution, only 15 per cent is through independent intermediaries. Distribution by the direct channel (including via bancassurance partners — Finns are used to single-sourcing financial services products) and by tied agents (including at Point-of-sale, POS) are very important in private lines insurance in Finland. This aspect of the market may do little in itself to intensify the level of competition in the market for motor insurance as a whole. Price comparison websites have started to appear in the market and although their market share is small these have been acting to increase price competition.
- 6.86 Around 80–90 per cent of Finns have some form of comprehensive cover (i.e. combining both M3PL and own damage). Customer retention tends to be high — perhaps 90–95 per cent of customers are retained year to year. Again, this is likely to act against price competition.

Premiums

- 6.87 Inflation in the cost of motor insurance increased steadily from 1999 to the beginning of 2009, and did so in line with changes in medical and paramedical services costs and maintenance and repair costs. Up till 2005, all of these inflation indices grew faster than general inflation in consumer prices.
- 6.88 This matches quite closely data on M3PL premiums obtained from the CEA: the average M3PL premium was €147 in both 2001 and 2002, rising to €176 in 2005 (where it stayed in 2006).



Figure 6.24: Evolution of the Motor Insurance and Related Indices in Finland, 1999-2009



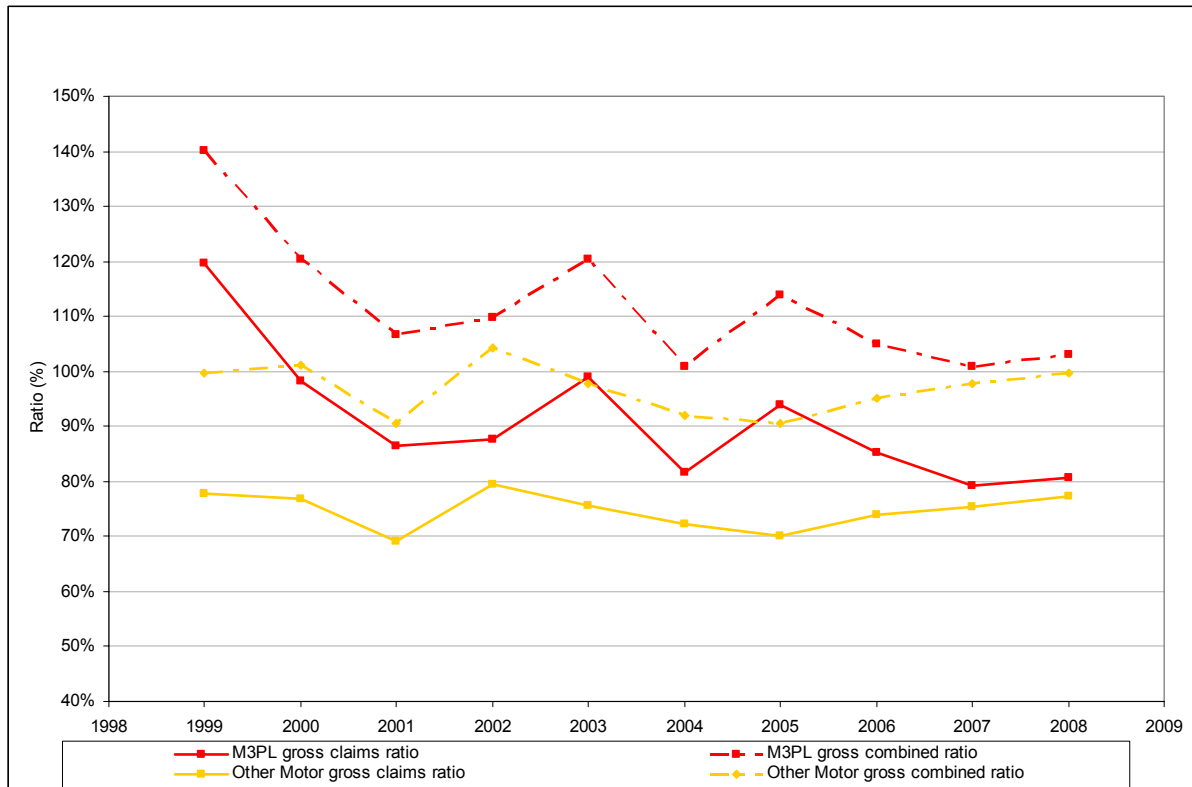
Source: Eurostat

Profitability

- 6.89 The gross claims ratio for M3PL has been consistently higher than the gross claims ratio for non-M3PL covers. M3PL has had a combined ratio above 100 per cent in all years; non-M3PL is slightly better, typically moving between 90 and 100 per cent between 1999 and 2008. Looking at motor insurance as a whole, the combined ratio has been above 100 per cent in all years except for 2004 and 2007–08 — despite an expense ratio that at just over 20 per cent is relatively low. The importance of bancassurance is likely to play a role here, since a value can be attached to a customer that goes beyond the motor insurance policy itself.
- 6.90 M3PL claim frequency has mostly moved around 3 per cent (of policies) since 2001: the lowest rate in the EU. However, average M3PL claim values are high and have seen significant inflation — rising from €4,090 in 2001 to €5,100 in 2006–07.



Figure 6.25: Evolution of the Claims and Combined Ratios in Finland, 1999-2008



Source: *Finianssialan Keskusliitto (Federation of Finnish Financial Services), EE analysis*

France

6.91 The non-life insurance market in France is the one least concentrated in the EU, with a CR5 figure of just over 50 per cent. The relatively high share in distribution of tied intermediaries (35 per cent compared to 18 per cent for independent intermediaries and three per cent direct distribution) may serve to reduce the competitiveness of the market in reality.

Premiums

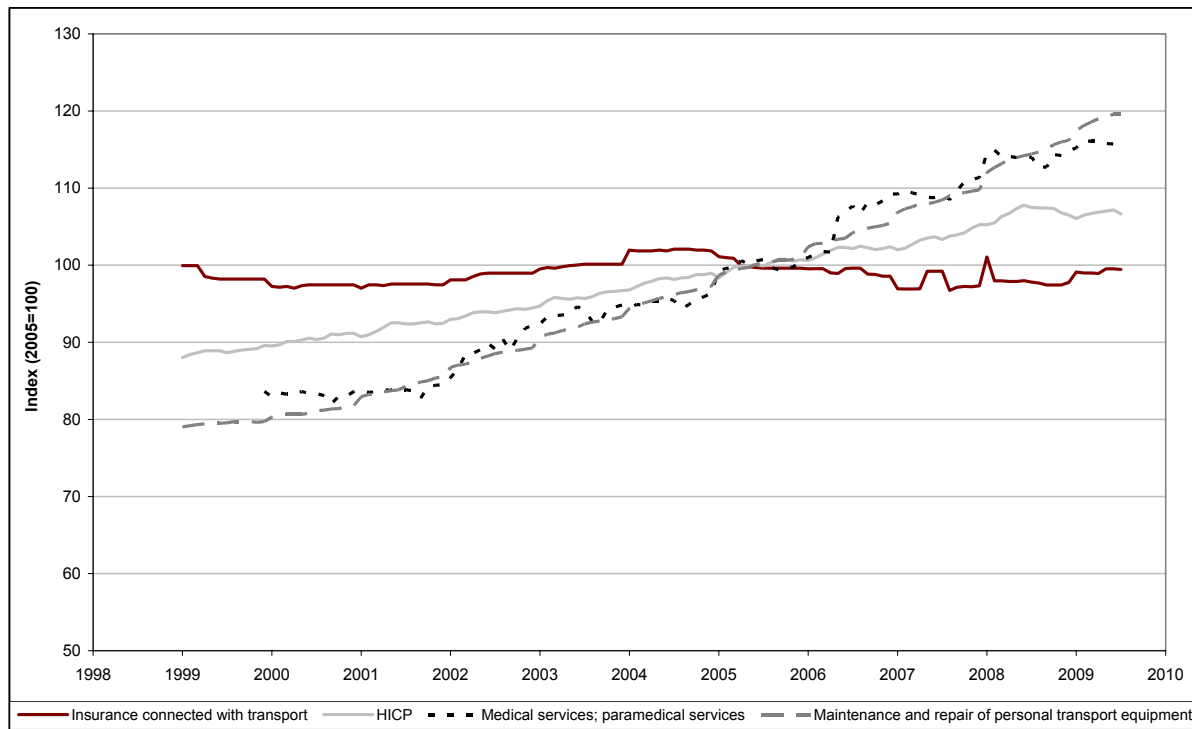
6.92 Motor insurance prices in France have remained relatively stable since 1999 with a slight deflationary trend until 2001 and again after 2005. This is in contrast with general consumer inflation, the cost of medical services and motor maintenance and repair costs, the latter two indices in particular growing rapidly over the time period.

6.93 Data from the CEA indicate that the average M3PL was €178 in 2001 and €177 in 2006 (albeit with an intra-period peak at €190 in 2004). Again, this matches relatively closely to the Eurostat index.



6.94 The average cost of claims for M3PL has risen between 2001 and 2006 (an average annual increase of 6 per cent, although this was most rapid in 2002 and 2003) and this is likely to be due to the costs of medical services and motor repairs increasing so rapidly.

Figure 6.26: Evolution of the Motor Insurance and Related Indices in France, 1999–2009



Source: Eurostat

Profitability

6.95 The claims ratio for all motor insurance was relatively high between 2000 and 2008, moving between 90 per cent and just below 80 per cent. The ratio for M3PL has been particularly high, dropping below 100 only once over the time period.

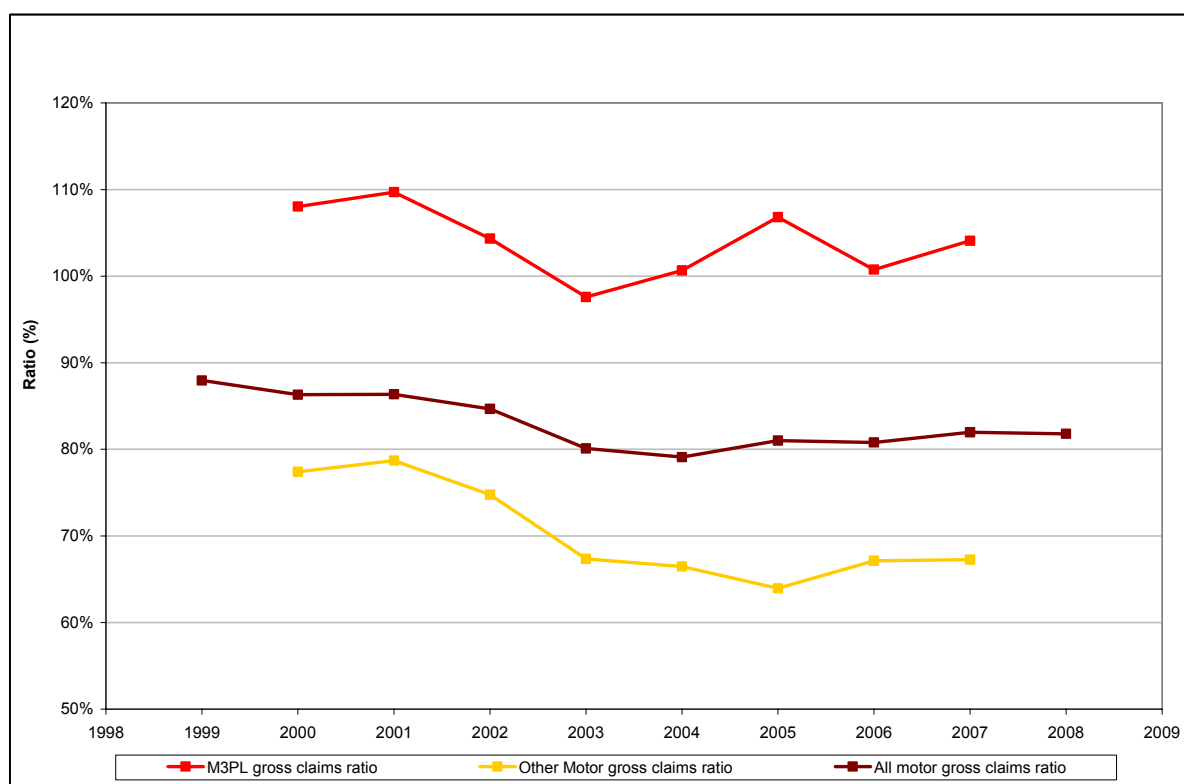
6.96 An increase in the average cost of claims, particularly between 2001 and 2003, appears to have been countered by an increase in average premiums over this time and a slight decrease in claim frequency between 2001 and 2002. Claims frequency has declined further from 2003 (when it was 6.9 per cent) to 2006 (4.4 per cent). The spike in the claims ratio from 2004 to 2005 appears to be more the result of a decrease in average premiums (which fell four per cent) than an increase in the burning cost. The fall in the claims frequency is derived from a fall in the number of road accidents and road fatalities, which have both been declining since 2000. The increase in the average claims cost reflects the inflation in medical services and motor repair costs, discussed above in relation to Figure 6.26 above.

6.97 Expense ratios in French non-life insurance are just over 20 per cent of premiums — the implication is that M3PL has consistently generated losses at the underwriting level.



Better performance in non-M3PL insurance means that overall motor insurance in France has struggled to break-even or just broken even at the underwriting level since 2003. This means that profitability on motor insurance products is derived from the investment performance achieved by the insurers on the premiums received from policyholders. This is a similar position to other large markets in the EU — particularly Germany and the UK.

Figure 6.27: Evolution of the Claims Ratio in France, 1999–2008



Source: *Fédération Française des Sociétés d'Assurance (French Federation of Insurance Companies), EE analysis*

Germany

6.98 Germany's insurance market is the least concentrated in the EU27.

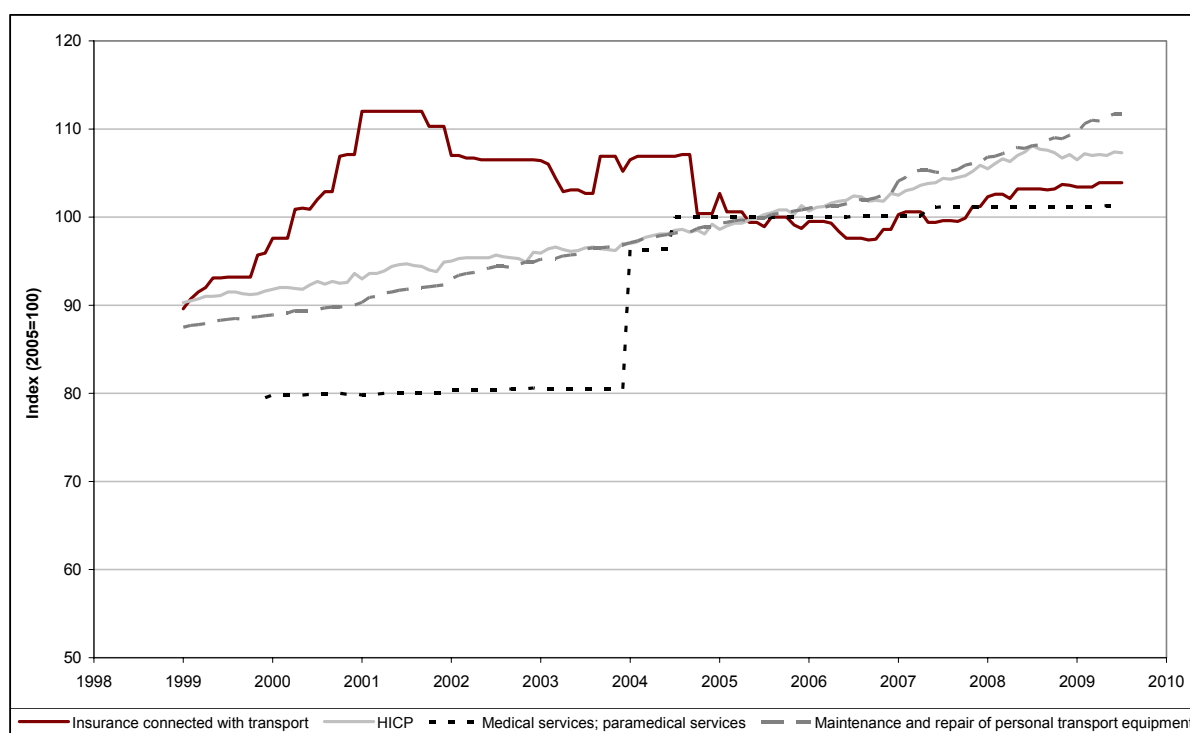
6.99 The distribution channel mix in Germany has changed significantly over time. In the 1960s about 90 per cent of distribution was through tied agents — this is now 40-45 per cent. Insurers sell through brokers, banks, affinity partnerships, at point of sale (e.g. motor dealerships — typically also under a form of single- or multi-tied agency agreement) and directly, as well as through such agents. Implicit in this is that customer loyalty to a particular channel has declined — indeed, as has loyalty to insurers, with a market participant we interviewed arguing that perhaps half of new car buyers change insurer at that time.



Premiums

- 6.100 Motor insurance for an average car in Germany has been somewhat cyclical but with a secular downward trend from 2001 through to 2007 and subsequent to that stability.
- 6.101 Data from Gesamtverband der Deutschen Versicherungswirtschaft (GDV, the German Industry Insurance Association) indicate that average M3PL premiums have been stable at about €250 between 2001–2005 prior to dipping to €238 in 2006.

Figure 6.28: Evolution of the Motor Insurance and Related Indices in Germany, 1999-2009



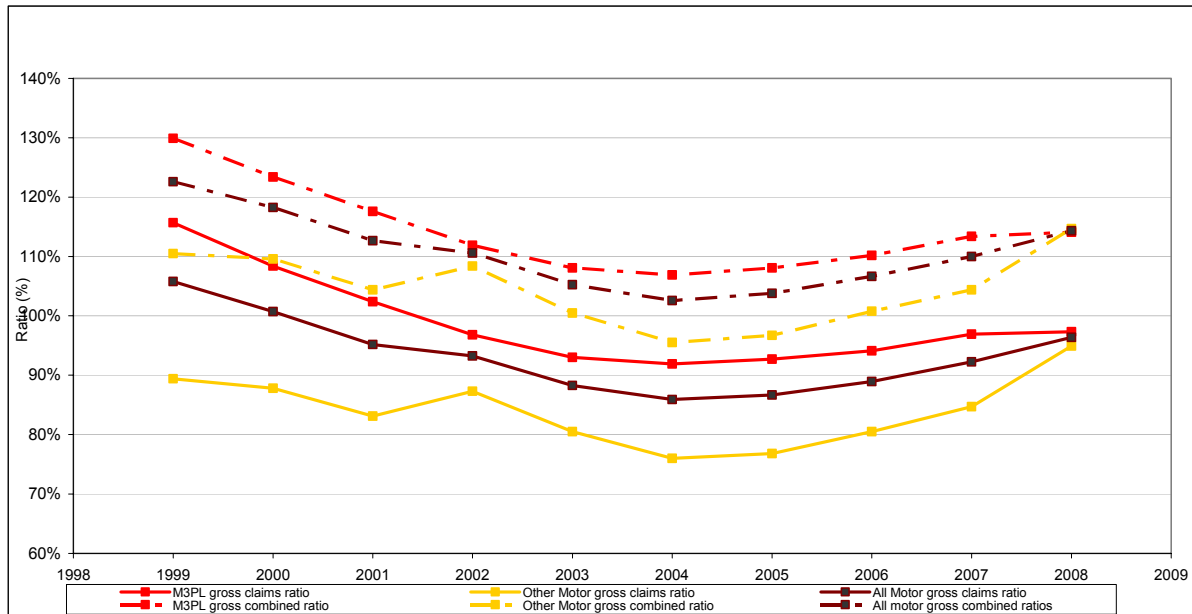
Source: Eurostat

Profitability

- 6.102 The gross claims ratio for M3PL was very high (i.e. at 130 per cent) in 1999 but by 2006 had come down to 94 per cent. However, this remains very high, and indeed German insurers have tended to have the highest claims ratios in the European motor insurance industry. Notwithstanding the low net expense ratio of 15–17 per cent in M3PL for German insurers, M3PL has been chronically unprofitable in underwriting terms; as, indeed, has motor insurance as a whole in Germany).
- 6.103 Claims frequency in M3PL has dropped from 7.3 per cent in 2001 to 6.2 per cent in 2006 (whilst average claim values have remained relatively steady), and this will have driven the decline in the claims ratio. From 1998 to 2007, accidents with an element of material damage increased by 6 per cent; however, injured individuals declined by 14 per cent.



Figure 6.29: Evolution of the Claims and Combined Ratios in Germany, 1999-2008



Source: Bundesanstalt für Finanzdienstleistungsaufsicht, EE analysis

Greece

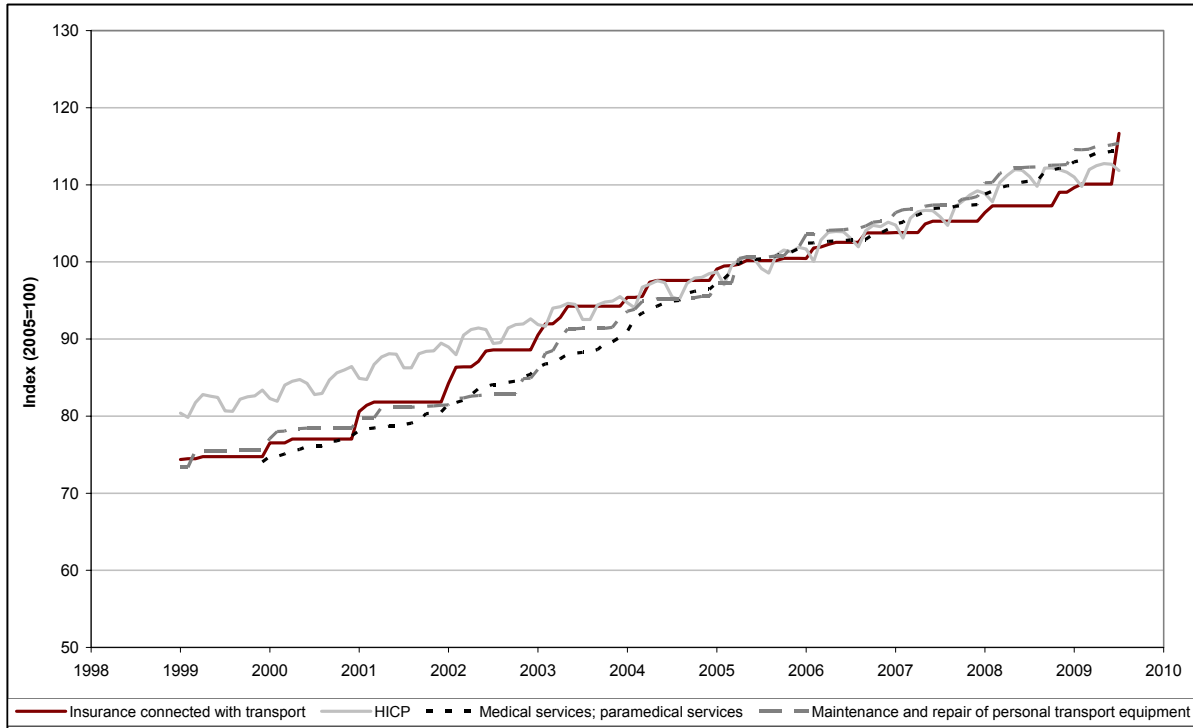
6.104 The M3PL and comprehensive segments of the insurance market are *prima facie* both very competitive. The comprehensive segment is marginally more concentrated than M3PL, with a CR5 of 47 per cent as opposed to 41 per cent. Both segments are still among the least concentrated in the EU, being ranked second and fourth respectively. However, the large share in distribution of tied agents (70 per cent compared with just 18 per cent for independent intermediaries) is likely to significantly negate in part this apparent high level of competitiveness in the market.

Premiums

6.105 The price of motor insurance in Greece has moved broadly in line with general inflation (HICP), the cost of medical services and motor repair and maintenance costs, although the latter increased at a slower rate than the other indices between 1999 and 2003.



Figure 6.30: Evolution of the Motor Insurance and Related Indices in Greece, 1999–2009



Source: Eurostat

Profitability

- 6.106 The gross claims ratio for M3PL has moved between 88 per cent and 78 per cent during the period 2000–2007. The shape of the curve depicted in Figure 6.31 below follows the evolution of the average cost of claims, which dipped in 2004 (from €2,214 in 2003 to €1,971) and then rose again in 2005 to €2,278. Between 2003 and 2004 the claims frequency increased — increasing the burning cost over this period — and therefore the fall in the claims ratio is due to the increase in average premiums over this period over and above the increase in the burning cost.
- 6.107 The steep fall in the claims ratio from 2000 can be explained by a correspondingly sharp decline in the number of road accidents and fatalities, which continued to fall for the rest of the period.



Figure 6.31: Evolution of the Claims Ratio in Greece, 2000–2007



Source: Hellenic Association of Insurance Companies

Hungary

6.108 Comprehensive (or own damage) cover products are mostly sold separately rather than in a product combined with M3PL cover. This is a likely factor behind the fact that, in contrast to nearly all other Member States, the degree of concentration varies somewhat between the two markets, with M3PL being notably less concentrated (on the HHI measure, for example, the M3PL market is characterised as being moderately concentrated whereas the own damage segment is highly concentrated). Like that of most CEE Member States, over the past two decades the insurance industry as a whole in Hungary has gone through a number of important changes including the entry of private capital into the market, rapid increases in the number of market players, and greater competition in the market. This said, the market leader in each market is quite dominant, with a market share of 38 per cent (in M3PL) and 48 per cent (in comprehensive).

6.109 Tied agents represent the most important distribution channel — particularly for the market leaders — with about two thirds of policies being sold through them. Price sensitivity is viewed as high by an interviewed market participant, particularly in M3PL. Here, “aggregators” (internet-based brokers similar from a policyholder perspective to price comparison sites) are playing an increasingly important role.



6.110 One important form of tied agent is the motor dealership. In 2006 the Gazdasági Versenyhivatal (GVH, the Hungarian Competition Authority) found a group of motor insurance companies guilty of cartel activities and imposed a fine of HUF6.8 billion (about €26 million) with Allianz Hungaria alone fined HUF5.8 billion (€22 million). In essence, Allianz Hungaria, General Providence and four other companies were found to have conspired with the national association of car dealers to allow excessive car repair costs in return for car buyers being directed towards the products of these companies.

Premiums

6.111 The cost of motor insurance has increased steadily since 2001 and has moved very closely, up till 2007 at least, with inflation in other relevant areas including medical and paramedical services costs, maintenance and repair costs and general consumer prices. According to the data on these indices, there was a very sharp spike in the cost of medical and paramedical costs between 2007 and 2008. This does not however appear to have influenced the trend in the other indicators.

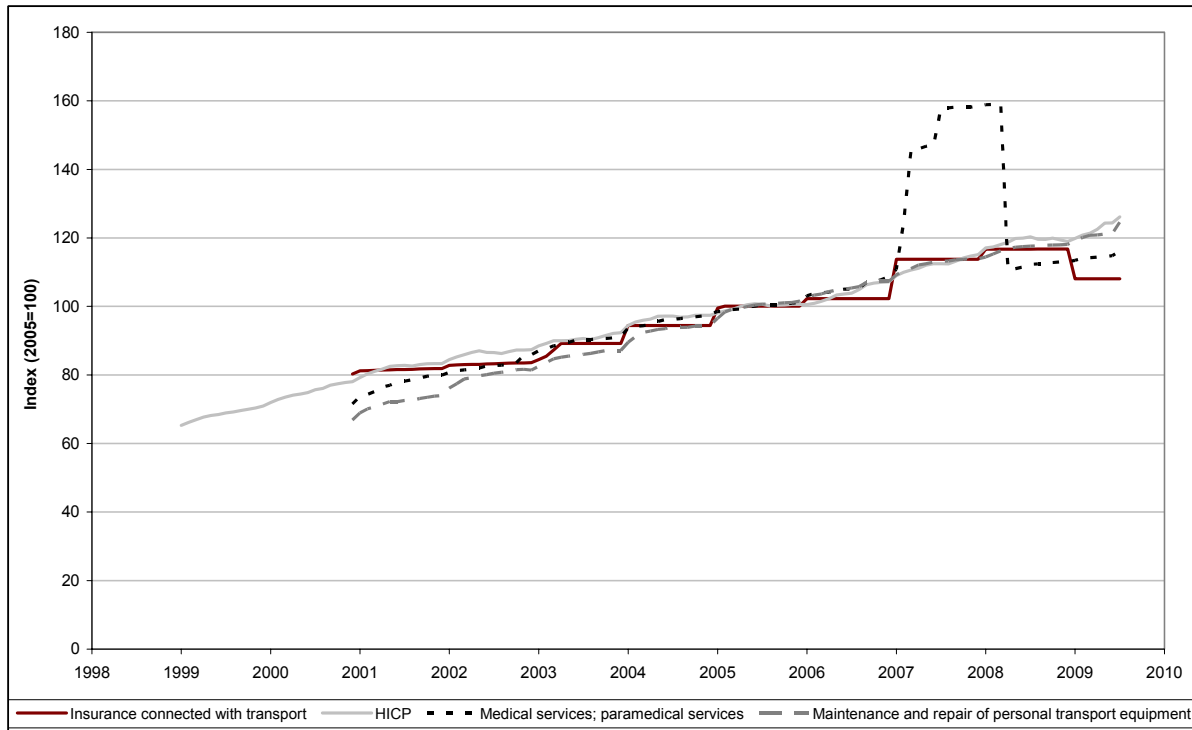
6.112 Data from Magyar Biztosítók Szövetsége (MABISZ, the Association of Hungarian Insurance Companies) indicate that the average M3PL premium rose from €79 in 1999 to €130 in 2005. The average premium has maintained itself at this level in 2006 and 2007. The average comprehensive policy increased from €316 to €484 by 2005. About 20 per cent of M3PL policies in Hungary have a matching “own damage” policy.

6.113 MABISZ has undertaken a number of initiatives to reduce the prevalence of uninsured drivers in Hungary.

6.114 On 1 January 2008, the insurance companies’ maximum payment for personal injuries was increased to HUF1.5 billion (€6 million) per claim in case of personal injury, regardless of the number of injured parties. A small uplift in premium levels is observable at that date.



Figure 6.32: Evolution of the Motor Insurance and Related Indices in Hungary, 1999-2009



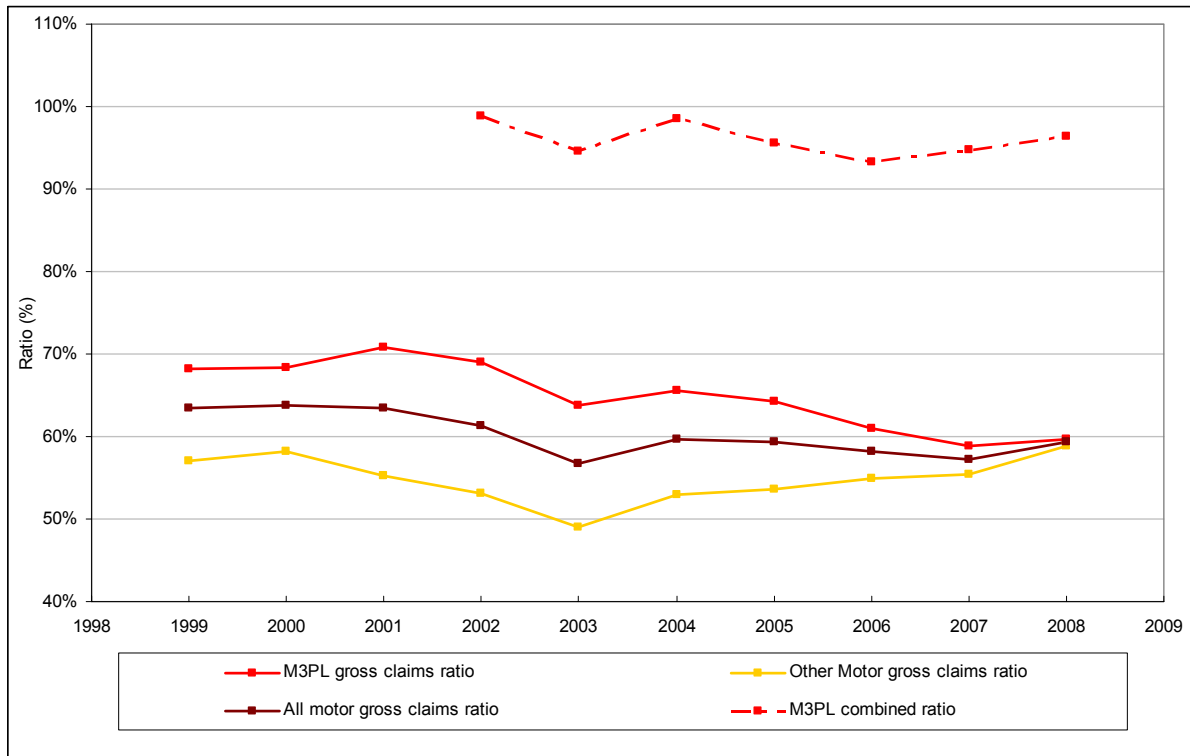
Source: Eurostat

Profitability

- 6.115 Between 1999 and 2008, although at different absolute levels, the gross claims ratio for M3PL and comprehensive cover have largely moved in step with each other, particularly from 2001.
- 6.116 The average cost of a M3PL claim has increased from about €840 in 1999 to €2,050 in 2007. The average own damage claim has also increased, but at a less accelerated rate (with the exception of 2000 when such claims spiked very significantly before reverting to trend). On the other hand, claims frequency in M3PL has declined from 7 per cent to 5 per cent over this period; by contrast, comprehensive claims have been much more volatile — hitting a high of 26 per cent in 2001 and a low the following year of 15.5 per cent.
- 6.117 Since 2006, the M3PL combined ratio has moved upwards, although it remains within the bounds of its recent historic experience. A combined ratio for own damage cover is not available; however, if the relation between operating costs and premiums corresponds to that applicable for the non-life sector as a whole (which has not exceeded 37 per cent between 1999 and 2008) then this segment would have shown strong profitability at the underwriting level throughout this time.



Figure 6.33: Evolution of the Claims Ratio in Hungary, 1999-2008



Source: Pénzügyi Szervezetek Állami Felügyelete (Hungarian Financial Supervisory Authority), EE analysis

Ireland

6.118 Statistics from the Irish Financial Services Regulatory Authority indicate that there has been a steady increase in concentration in the M3PL insurance market: the CR5 has increased from 62 per cent in 2000 to 89 per cent in 2008 (on the other hand, the HHI has decreased). The two market leading operators hold just under 60 per cent of the market, with the third operator at 13 per cent.

6.119 The comprehensive segment is less concentrated, with the market leader holding 27 per cent and next four operators ranging from 14 per cent to 10 per cent. Concentration in the two segments also varies for different markets, for example those for specific ages and genders.

6.120 On the other hand, distribution through independent intermediaries is a prominent feature of the Irish non-life market, reaching 70 per cent. In itself, this should improve the competitive landscape by facilitating more effective product search by policyholders.

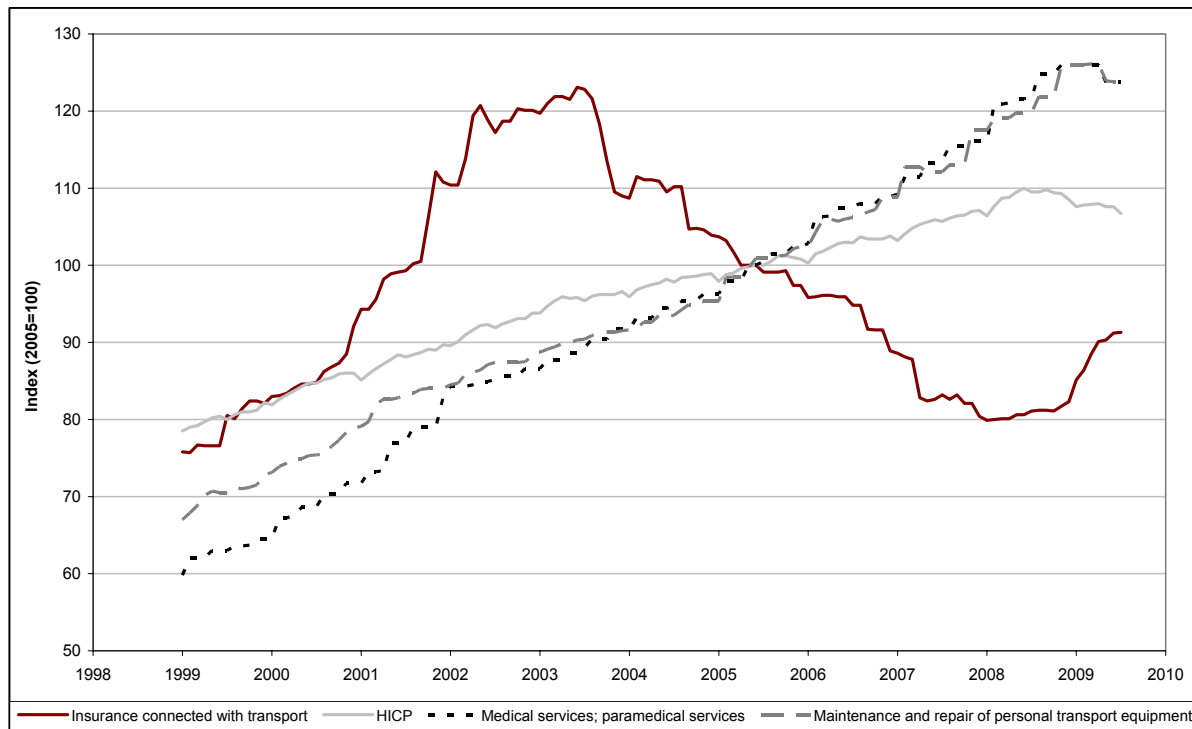
Premiums

6.121 The cost of motor insurance in Ireland has been extremely volatile relative to other markets with high inflation until 2003 and then a period of marked deflation through to 2008. Until 2003 the growth of motor insurance prices far exceeded the growth in the



general price level (HICP), the cost of medical services and motor repair and maintenance costs. This would have had a significant positive effect on the profitability of the industry, as is indicated in the declining claims ratio between 2001 and 2003 (see Figure 6.34 below).

Figure 6.34: Evolution of the Motor Insurance and Related Indices in Ireland, 1999–2009



Source: Eurostat

Profitability

6.122 The period of deflation after 2003 lags a marked decline in the average cost of claims — this has fallen dramatically from €6,146 (2002) to €2,880 in 2007, thus countering the effects of the fall in insurance prices and contributing to a sustained decrease in the claims ratio and an increase in profitability.⁶⁸

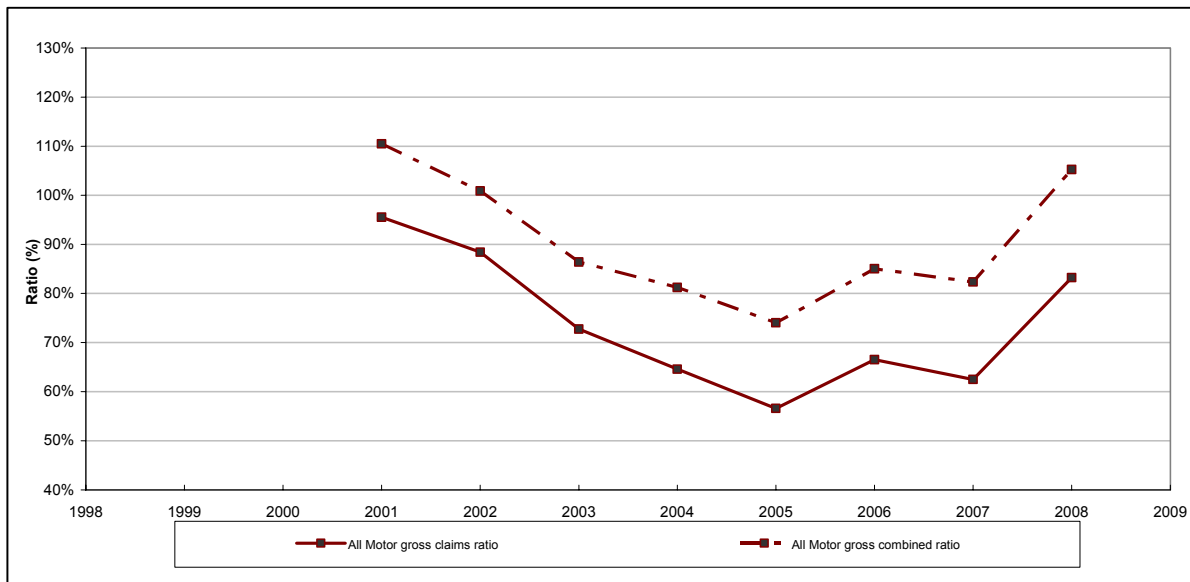
6.123 The fall in the average cost of claims can be attributed to the formation of the Personal Injuries Assessment Board in 2003 (now InjuriesBoard.ie), a statutory body which provides independent assessment of personal injury compensation where liability is not in dispute. It delivers compensation without the legal costs and expert fees (and lengthy processes) that add more than 46 per cent on average to the cost of a claim settled

⁶⁸ According to the Irish Financial Services Regulatory Authority's annual insurance review, in 2004 the largest motor insurer in Ireland saw its profits increase by 80 per cent.



through the courts. InjuriesBoard.ie is now self-funded, primarily through levying fees to the respondents (the parties liable for the compensation).

Figure 6.35: Evolution of the Claims and Combined Ratios in Ireland, 2001–2008



Source: Irish Insurance Federation (IIF), EE analysis

6.124 The main reason for the establishment of InjuriesBoard.ie was the very high cost of average claims settled through courts. In addition, according to some stakeholders, the compensation amounts themselves were inflated and it was hoped that this innovation would bring about a reduction in these as well.⁶⁹ Despite the significant fall in the average cost of claims, there is debate in Ireland as to whether these have been passed on to a sufficient degree to consumers. The Consumer Association of Ireland maintains that premiums have not decreased as quickly as they should have given the large profits being made by the insurance industry. Market entry has also not increased in line with the rise in profitability. According to the Competition Authority in Ireland, these are both evidence of sluggish competition in the market.

6.125 In 2003, a further key factor in the decline of aggregate claims costs was the introduction of the penalty points system. The system was introduced in November 2002 and was particularly effective in the early part of 2003 when motorists feared detection. However, this effect has unfortunately worn off with the passage of time as it was increasingly realised that enforcement of the penalty points system is not as efficient as the motoring public initially feared.

⁶⁹ According to the Irish Competition Commission (2005), claim levels in Ireland have historically been far in excess of those in other EU Member States.



- 6.126 In addition to the falling average cost of claims, the claims frequency in Ireland has also decreased from 6.6 per cent in 2001 to 4.5 per cent in 2004, although with a slight increase in 2005 and 2006. Car accidents and road fatalities have also tended to decrease over this time period, although with an increase in 2006 which may explain the upward shift in that year.
- 6.127 Another contributor to the reduction in claims has been a concerted effort to reduce insurance fraud. First, there was the launch in February 2003 by the Irish Insurance Federation (IIF) of an anti-fraud campaign including a hotline (“Insurance confidential”). This was further reinforced by the Civil Liability and Courts Act 2004 which introduced criminal sanctions of fines and even imprisonment for insurance fraud. The ban on “no win, no fee” advertising by solicitors from February 2003 also had an impact on the frequency of claims.
- 6.128 The expense ratio rose from 15 per cent in 2001 to 22 per cent in 2008, and the industry went from making an underwriting loss in 2001 to profit subsequently. However, private lines motor insurance recorded an underwriting loss in 2008, equal to about 5 per cent of gross premiums. Investment profits represented about 9 per cent of gross premiums (broadly in line with the sector’s historic experience) so that the segment remained profitable overall.

Italy

- 6.129 Motor insurance is not concentrated in Italy; indeed, it ranks as the second (non-M3PL) or third (M3PL) least concentrated in the EU. However, distribution is dominated by multi-tied agents with independent intermediaries accounting for less than 10 per cent of sales. This will act to reduce the effective level of competition.
- 6.130 Indeed, the rate of switching is strikingly low in Italy. Autorita’ Garante della Concorrenza e del Mercato (AGCM, the Italian Competition Authority) estimates switching at just four per cent, i.e. significantly below the market norms in say Germany or the UK.⁷⁰ *Inter alia*, the AGCM has called for the strengthening of the Bersani Decree to cover all motor insurance rather than simply M3PL (the Bersani Decree bans single tie agents in M3PL and enhanced disclosures).⁷¹

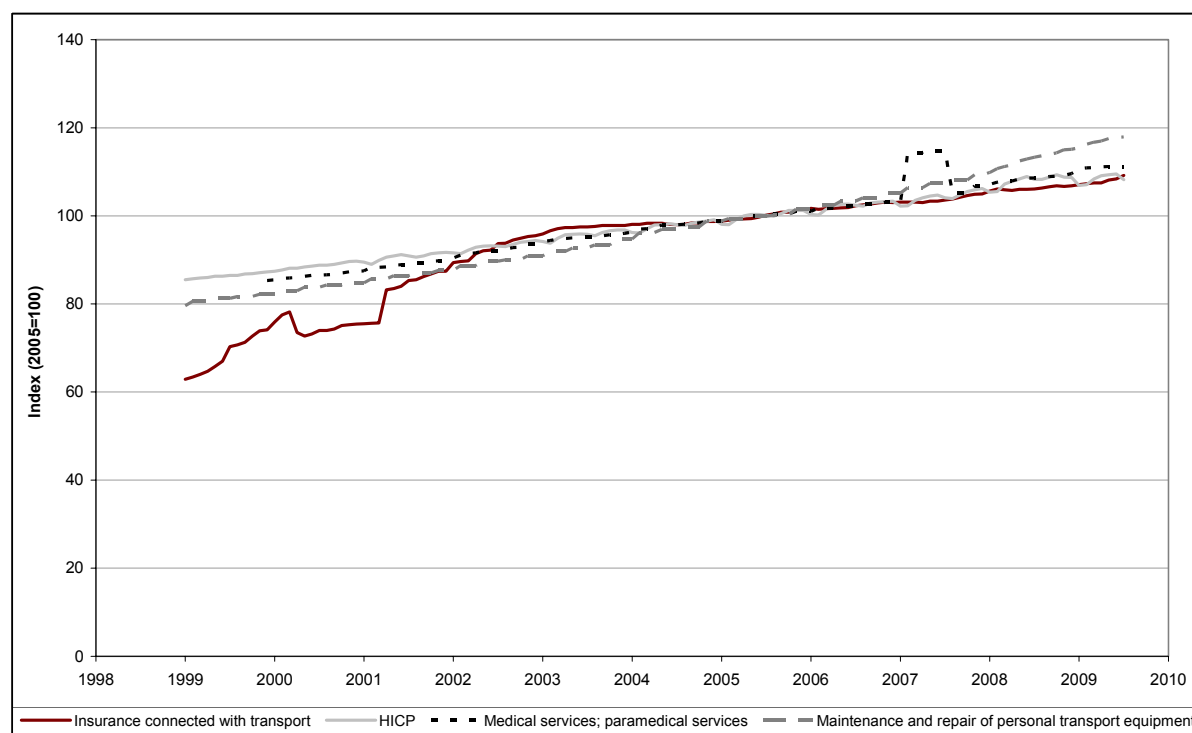
Premiums

- 6.131 Between 1996 and 2001, the rate of inflation in the cost of motor insurance in Italy was significantly faster than the inflation rate in other areas including medical and paramedical costs, maintenance and repair costs and general consumer prices. From 2001 however the rate of inflation in the cost of motor insurance slowed down, noticeably falling behind the rate of inflation in vehicle maintenance and medical costs in 2008.



6.132 CEA data on average M3PL premiums show these as being relatively stable around €400 between 2003 and 2006.

Figure 6.36: Evolution of the Motor Insurance and Related Indices in Italy, 1999-2009



Source: Eurostat

Profitability

6.133 AGCM investigated the M3PL insurance sector in the late 1990s, finding sufficient evidence of distortion (e.g. relating to the sharing of sensitive information) by fifteen leading insurers to justify levying a fine of €364,000 (lire 700 million) in 2000.⁷²

6.134 Like a number of Member States, the gross claims ratio for comprehensive cover is rather lower than within the M3PL segment. Further, while both have been making underwriting profits, these have been far larger for the comprehensive cover (i.e. an average of 26 per cent per year between 2003 and 2007) than for M3PL (i.e. an average loss of 1 per cent per year between 2000 and 2008). Italy has an unusually low penetration of comprehensive cover (with such premiums totalling about 15 per cent of motor insurance business in Italy, against an average of 40 per cent elsewhere).

⁷⁰ AGCM Press Release 85, 30 November 2007.

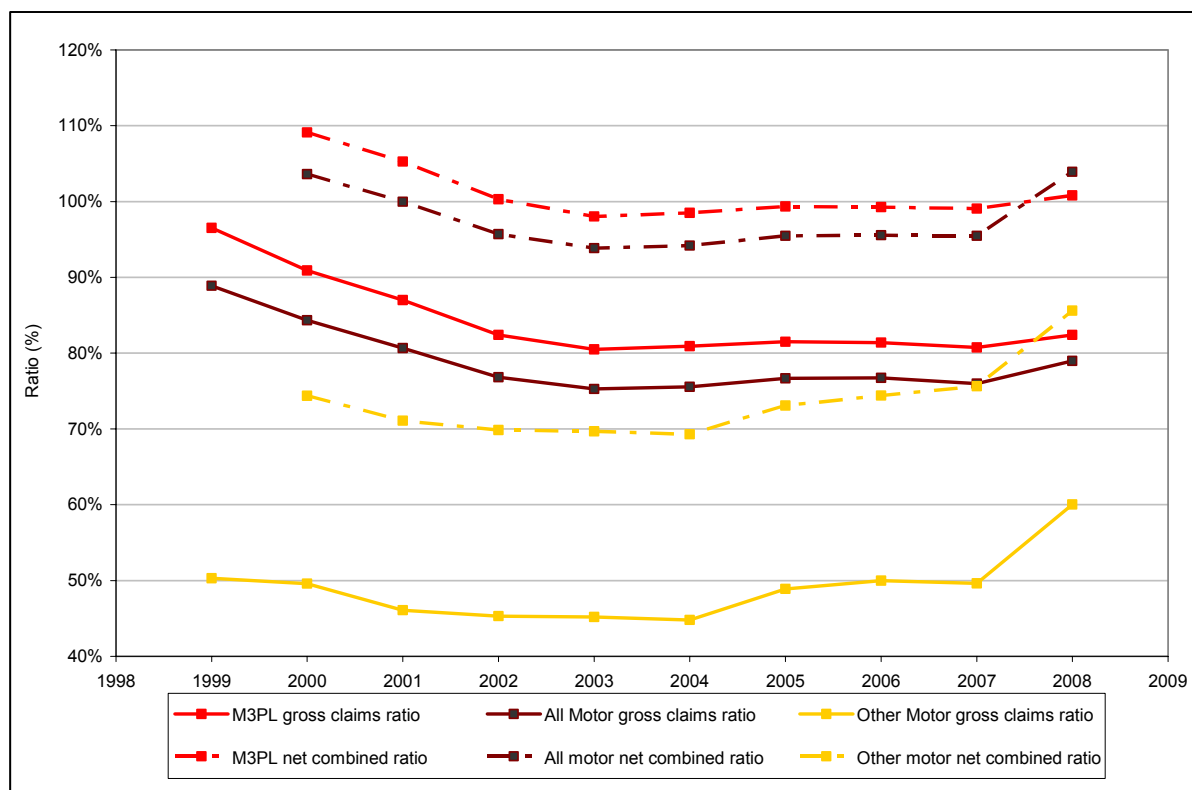
⁷¹ AGCM Press Release 2, 16 January 2007.

⁷² AGCM reference I377, case RC Auto. Exchange rate applied: 0.00052 (www.oanda.com).



- 6.135 A high proportion of accidents in Italy incorporate bodily injury (21 per cent in 2006), driving average claim values up. It may be that — given the low take up of own damage cover — many of the less serious accidents go unreported (i.e. the actual accident rate in Italy would then be rather higher than is reported). Data from Associazione Nazionale fra le Imprese Assicuratrici (ANIA, the Italian National Association of Insurance Companies) indicate that average M3PL claims were €2,809 in 2000 but had increased to €4,316 in 2006. In this period, the average bodily injury claim had increased by 36 per cent against a 29 per cent increase in property damage claims.
- 6.136 A recent development in the market for motor insurance in Italy is a Legislative Decree, passed by the Government in November 2007, implementing the fifth motor insurance directive. This introduced modifications to the Insurance Code, with the new minimum limits of coverage (equal to €5 million for personal injuries and € 1 million for property damage), to which the insurance undertakings must conform by 11 June 2012, being one of the most significant changes.

Figure 6.37: Evolution of the Claims and Combined Ratios in Italy, 1999-2008



Source: Istituto per la Vigilanza sulle Assicurazioni Private e di Interesse Collettivo (ISVAP), EE analysis

Latvia

- 6.137 The Latvian market is small and moderately concentrated. In terms of distribution channels, tied agents have a large market share (between 40 and 50 per cent), with brokers holding around 20 per cent and the rest of the distribution being direct.



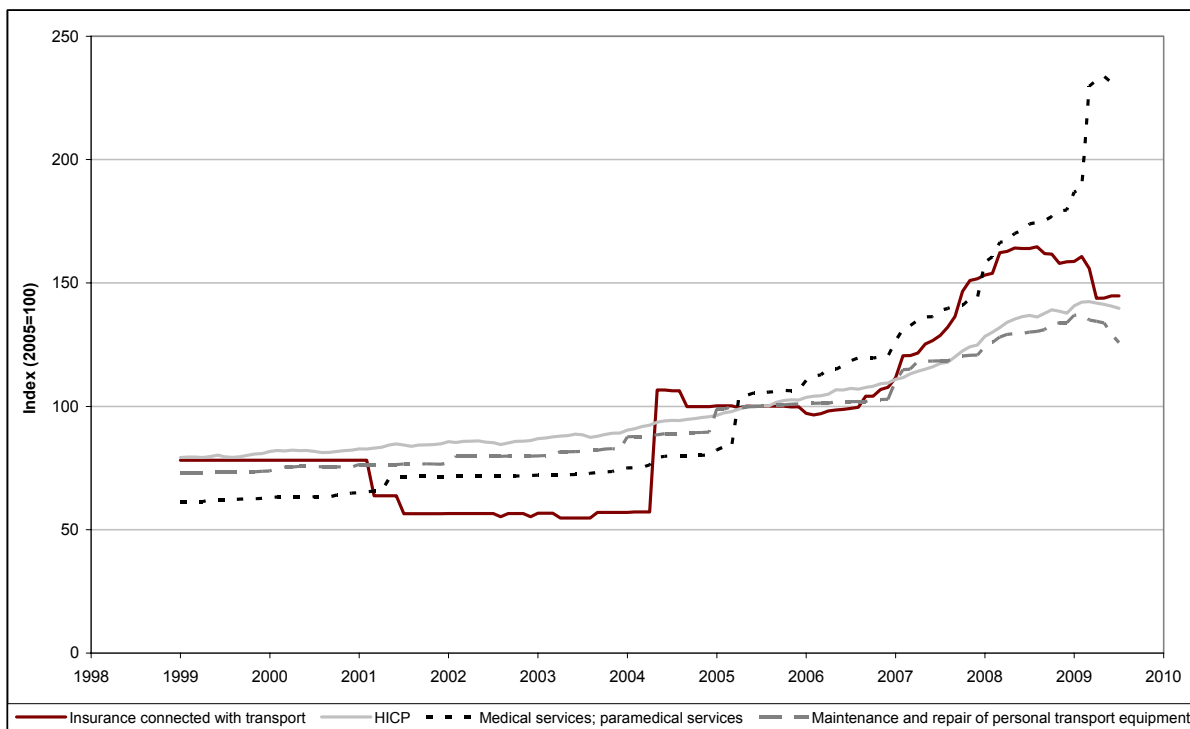
6.138 According to an interview with a local market participant, a number of operators are operating at a short term loss in order to gain market share and so secure increased profitability in the future. This is reflected in the low profit margins of operators, until at least 2008 (Figure 6.38 below).

Premiums

6.139 Motor insurance prices in Latvia have moved broadly in line with general price inflation (HICP), medical services costs and the costs of motor repair and maintenance, remaining relatively stable from 1999 to 2004, apart from some deflation between 2001 and 2002. After a sharp increase in 2004 insurance prices along with other related indices increased rapidly.

6.140 CEA data on the average M3PL premium provide a contrarian view, with a decline from €93 in 2002 to €82 in 2006. This corresponds more closely to information provided by market participants where it is attributed to increasing competition and the development of more complex rating structures. An interviewee saw switching provider as being quite common in Latvia. This is the case particularly in M3PL where price considerations are typically most important (because the product is more homogenous, at least within a specific country). For own damage insurance switching is less common, and less often due to price considerations.

Figure 6.38: Evolution of the Motor Insurance and Related Indices in Latvia, 1999–2009



Source: Eurostat



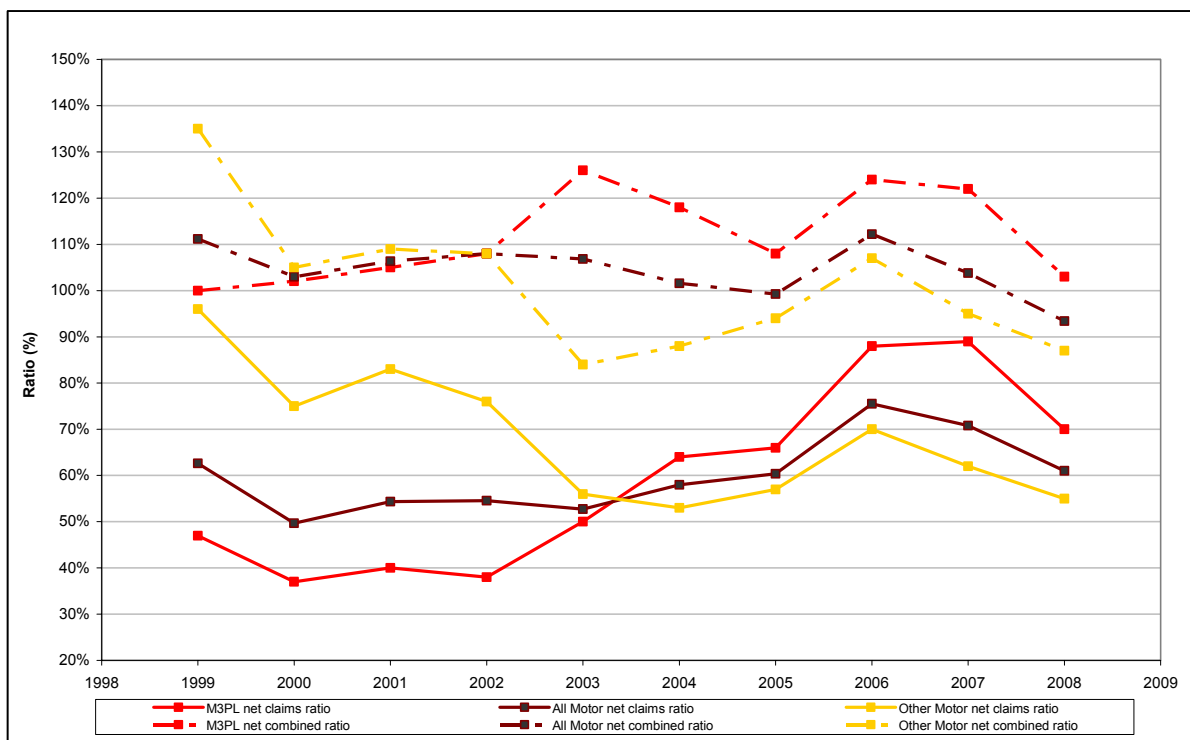
Profitability

6.141 Figure 6.39 shows the significant increase in the claims ratio, particularly for M3PL, since 2003. Although the expense ratio has been moving downward from 64 per cent to 33 per cent over the period, the M3PL industry has consistently made a net underwriting loss. The comprehensive segment has fared slightly better, making a loss only in 2005 after emerging from a period of losses up to and including 2002. Motor insurance as a whole broke even in 2005 and then achieved a reasonable degree of profitability in 2008.

6.142 The rapid increase in the M3PL insurance claims ratio between 2003 and 2006 is the result of both an increase in the average cost of a claim and the claim frequency, coupled to deterioration in M3PL premiums (we note that the CEA dataset fits the claims ratio rather better than that from Eurostat).

6.143 Claim costs are likely to have been driven, in part, by increases in compensation limits required by Latvia’s accession to the EU. Other factors such as the increased proportion of more expensive cars (resulting from the significant growth of the Latvia economy since 2000) and changes in definitions as to what is compensated for have also played a role.

Figure 6.39: Evolution of the Claims and Combined Ratios in Latvia, 1999–2008



Source: Finanšu un Kapitāla Tirgus Komisija (the Financial and Capital Market Commission), EE analysis



Lithuania

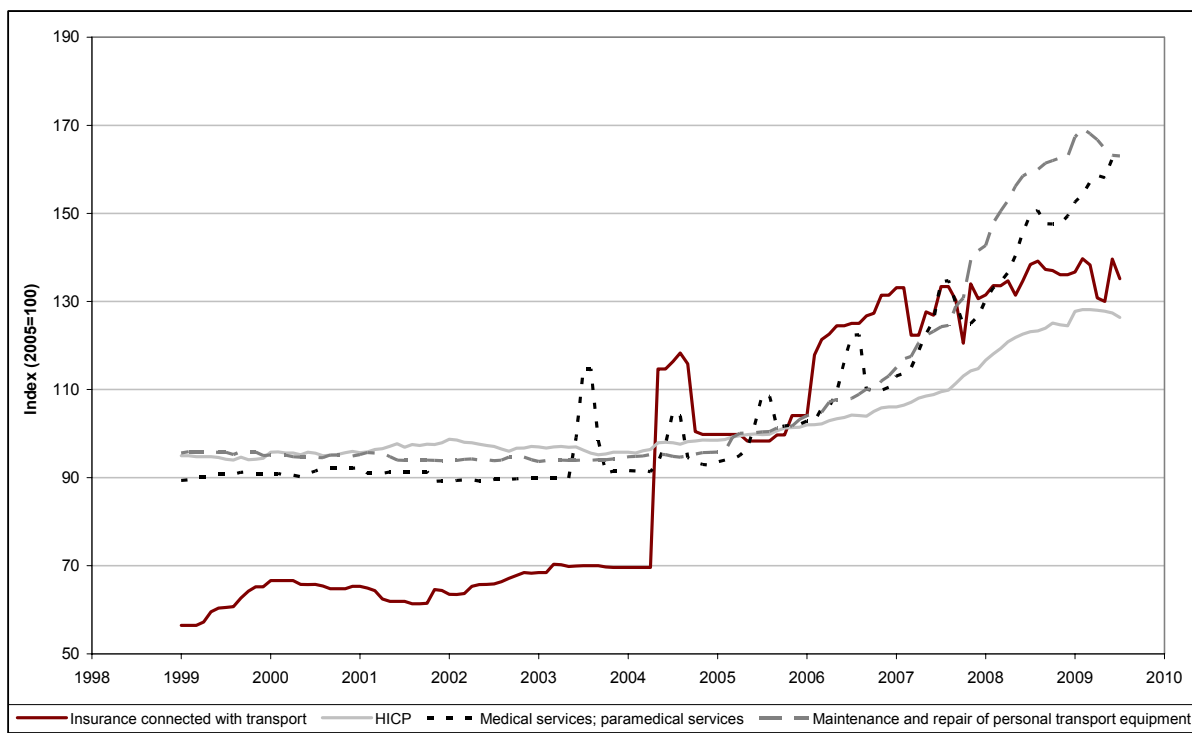
6.144 In common with most of the CEE Member States, Lithuania's motor insurance markets are highly concentrated (particularly the non-M3PL segment). Approximately one third of non-life insurance as a whole is distributed using independent intermediaries.

Premiums

6.145 Since liberalisation, tariff setting has become more complex, with more detailed, accurate segmentation, and the refusal of loss-making segments (e.g. trucks).

6.146 In comparison to a number of the other EU Member States, changes in the cost of motor insurance in Lithuania have been particularly erratic, with no discernable trend being apparent. Increases in the sums insured have driven premiums upwards — claims ratios have increased despite the (mostly) upward trend in premiums.

Figure 6.40: Evolution of the Motor Insurance and Related Indices in Lithuania, 1999-2009



Source: Eurostat

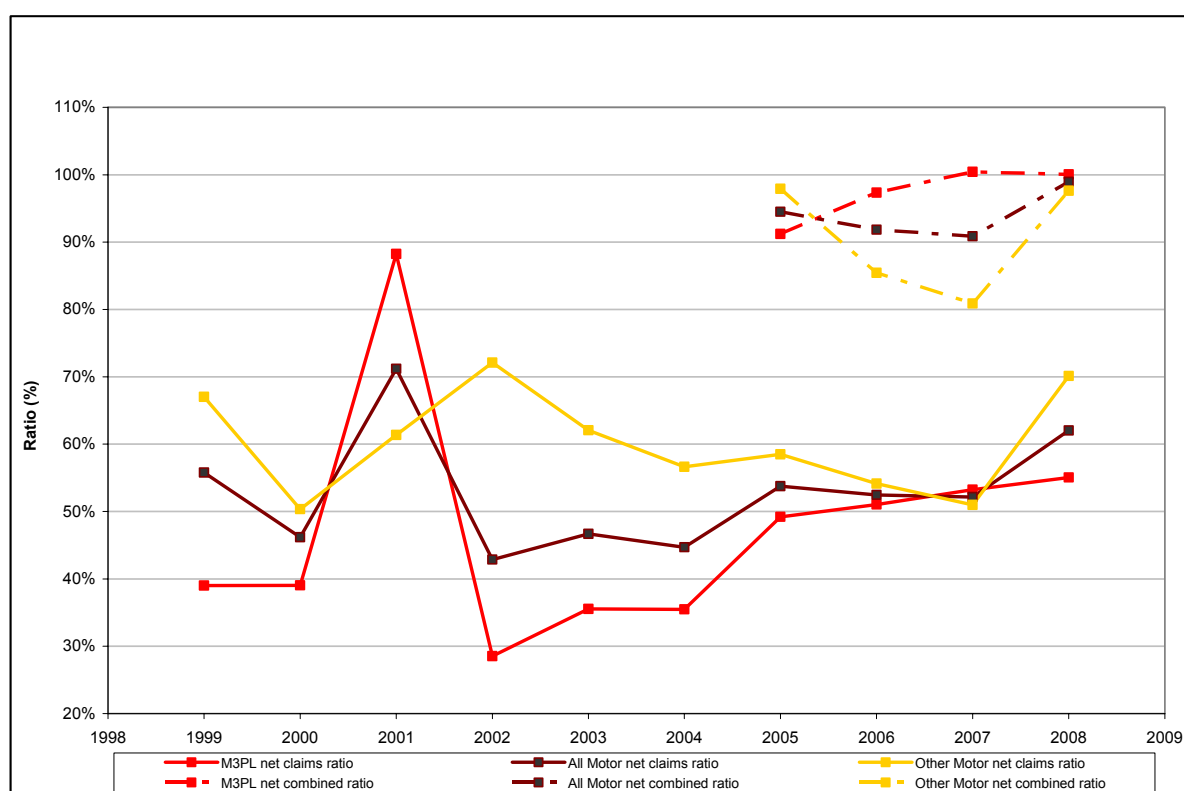
Profitability

6.147 The net claims ratio for M3PL deteriorated considerably (i.e. from the perspective of the insurers) between 2002 and 2008 (i.e. increasing from below 30 to 55 per cent), driven by increasing claims value. This increase in the value of claims incurred does not appear to have been driven largely by changes in the number of roads fatalities as these only increased over the period by approximately 4 per cent.



6.148 Further, the change in the net claims ratio for M3PL, does appear to have affected the profitability of the sector dramatically over the period because the own damage segment claims ratio was moving in a countervailing direction, at least until 2007–08. In an interview, a market participant noted that recent competition had been most fierce in this segment and this has driven overall underwriting profitability much closer to 100 per cent in 2008.

Figure 6.41: Evolution of the Claims and Combined Ratios in Lithuania, 1999–2008



Source: Lietuvos Respublikos Draudimo priežiūros komisijos (Insurance Supervisory Commission of the Republic of Lithuania), EE analysis

Luxembourg

6.149 The motor insurance market in Luxembourg is highly concentrated, with the top two operators controlling around 66 per cent of both M3PL and comprehensive segments. In terms of the CR5, Luxembourg is ranked as 24th and 25th most concentrated out of the 26 EU countries for which we have data. For both segments the only national operators are the two market leaders.

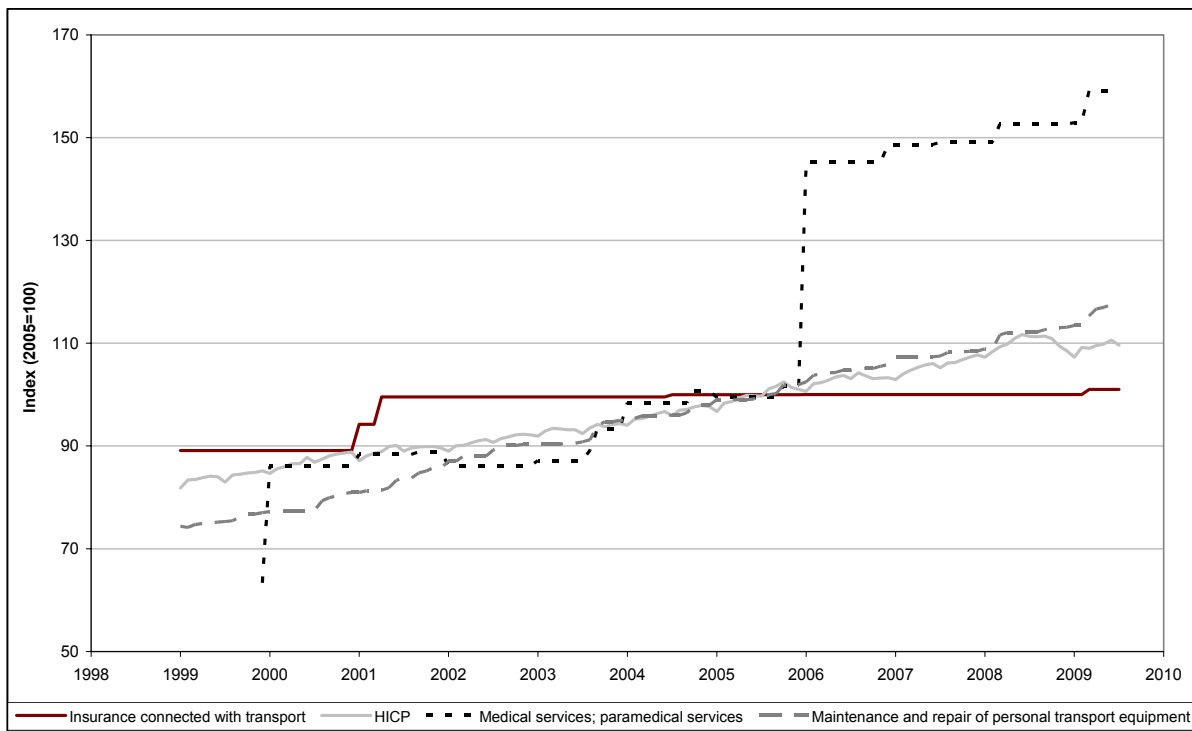
6.150 The effective competitiveness of the market is likely to be further reduced by the significant distribution share of tied agents (around 90 per cent), although Commissariat aux Assurances (the Luxembourgish supervisory authority) does monitor those few independent brokers to ensure that no more than 40–50 per cent of business is through a particular insurer.



Premiums

6.151 Figure 6.42 below shows the evolution of motor insurance prices. The price of motor insurance has remained relatively stable since 1996 apart from a small increase in 2001. This is in contrast with the other price indices which have all increased.

Figure 6.42: Evolution of the Motor Insurance and related Indices in Luxembourg, 1999–2009



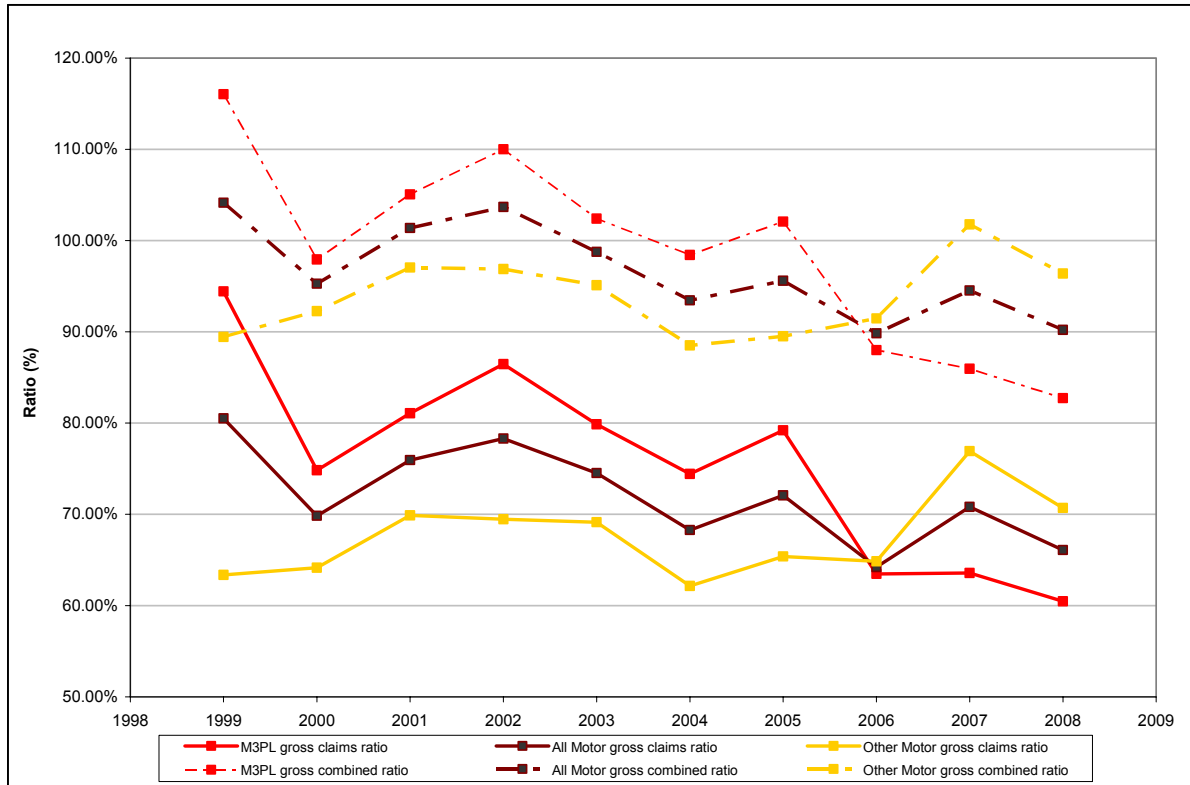
Source: Eurostat

Profitability

6.152 The M3PL segment became more profitable in 2006–2008 due to the falling claims ratio (the expense ratio remaining relatively stable at an average of 23 per cent). The increase in the claims ratio for the comprehensive segment in 2007 resulted in an underwriting loss in this year in that segment, after sustained profits since at least 2003.



Figure 6.43: Evolution of the Claims and Combined Ratios in Luxembourg, 1999–2008



Source: *Commisariat aux Assurances Luxembourg, EE analysis*

- 6.153 The claims ratio for all motor insurance has followed a downward trend since peaking in 2002, after increasing slightly beforehand. The combined ratio has similarly been trending downwards, with motor insurance generating a respectable level of profit.
- 6.154 The influence of the number of road accidents and fatalities, on the claims ratios for M3PL appears to be limited as road accidents, although decreasing until 2003, have increased since.
- 6.155 Claims for comprehensive insurance have been increasing since 2003 (although not enough to outweigh the increases in premiums until 2006) due to increasing claims frequency (windscreen-related claims in particular have increased dramatically in the last five years). Falling own damage premiums have influenced the later rise in the comprehensive claims ratio — one of the market leaders has driven prices down through innovating by using German-sourced data based upon motor car models as opposed to the traditional use of ratings based upon power (kWh).

Malta

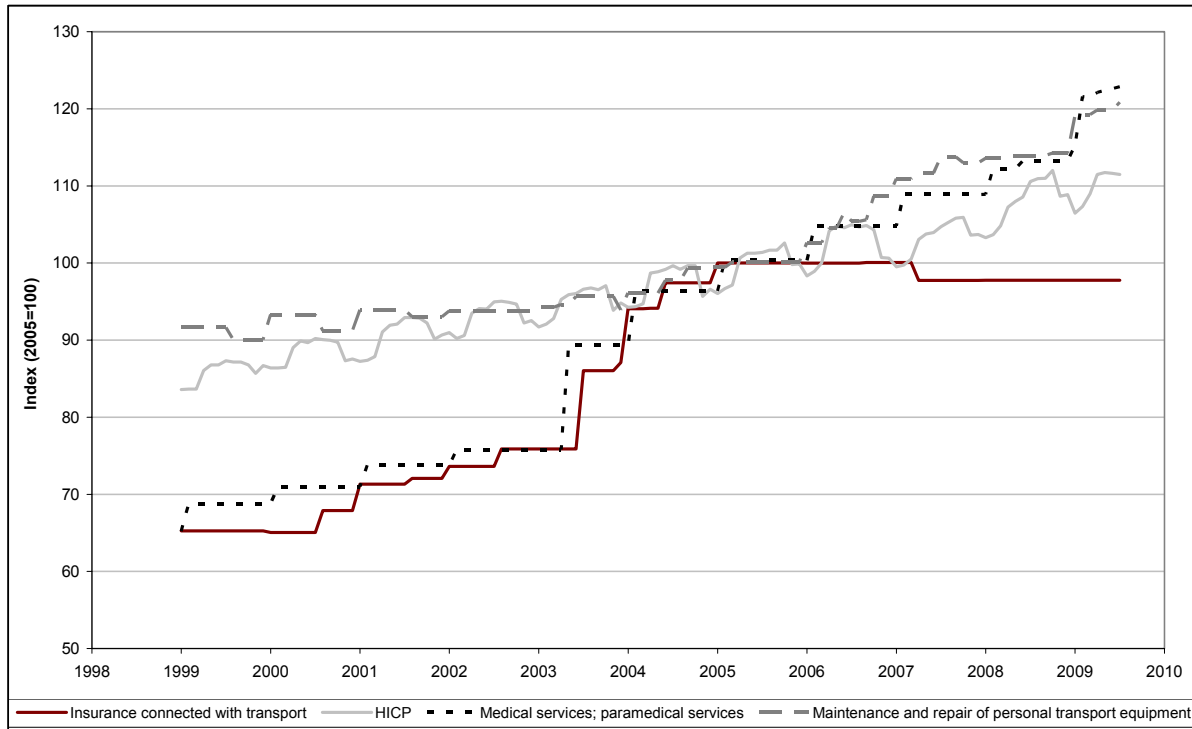
- 6.156 In an EU context, the motor insurance market in Malta is moderately concentrated. Another feature of the motor insurance market in Malta is that about 40 per cent of policies are distributed through independent intermediaries.



Premiums

6.157 The cost of motor insurance in Malta increased relatively quickly from 2001 until 2005. After this it remained relatively stable, with a significant wedge arising between motor insurance inflation and the other indices in 2008.

Figure 6.44: Evolution of the Motor Insurance and Related Indices in Malta, 1999-2009



Source: Eurostat

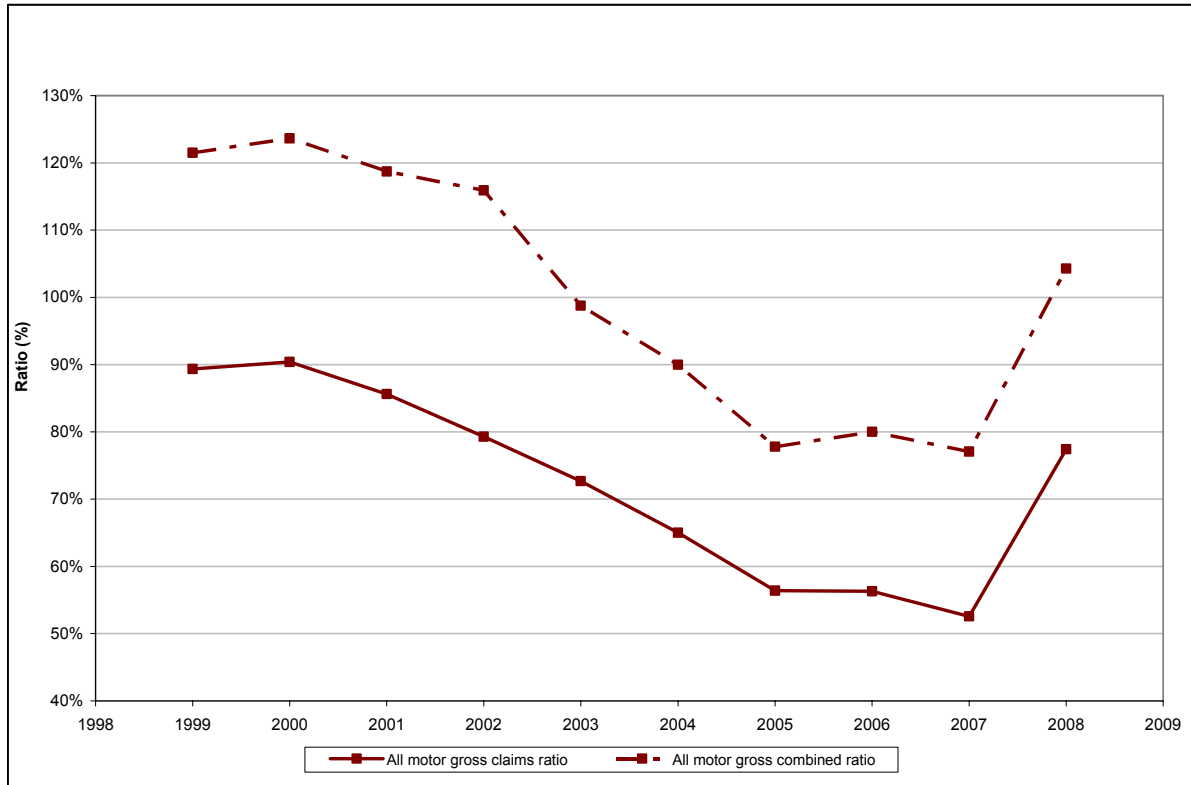
Profitability

6.158 In common with the other countries with well-established ties to the UK, Malta’s market is heavily centred on products combining M3PL and own damage cover. This leads to the Malta Financial Services Authority (MFSA) to focus upon data on the motor insurance market on a combined basis.

6.159 Between 1999 and 2007 the gross claims ratio trended downwards from 90 per cent to just above 50 per cent, before moving sharply upwards again in 2008. This latter move broadly coincides with the apparent flattening of prices in 2007–08 noted above. The combined ratio benefitted from both this trend and also a significant decline in the expense ratio over the period so that in 2005–07 motor insurance was achieving a high degree of profitability.



Figure 6.45: Evolution of the Claims and Combined Ratios in Malta, 1999-2008



Source: Malta Financial Services Authority, EE analysis

Netherlands

6.160 Motor insurance in the Netherlands is generally sold as a stand-alone product, making it easier to compare prices and the details of product coverage. This will tend to increase competition. Concentration is low, with the market leaders in both segments holding around 14 per cent of the market. Although there has not been much market entry or exit in the last few years, existing companies have developed subsidiaries that are mainly focussing on the internet market. Switching is very commonplace in the motor insurance segment, and is driven mainly by price considerations.

6.161 Distribution via independent intermediaries is the most important channel with a 55 per cent share (one of the highest in the EU). In 2004 Nederlandse Mededingingsautoriteit (NMa, the Netherlands Competition Authority) published a consultation document on independent insurance intermediaries in response to concerns over insufficient transparency regarding existing links between insurers and insurance brokers, the complexity of financial products, the commission system and switching costs. In particular the NMa was concerned about the double role of the insurance broker as an adviser, on the one hand, and as a party with a financial interest in the transaction, on the other hand, might result in non-objective advice. There is a growing change in distribution with direct sales through the internet increasing and the intermediary market shrinking (this is a similar trend to that experienced in the UK).

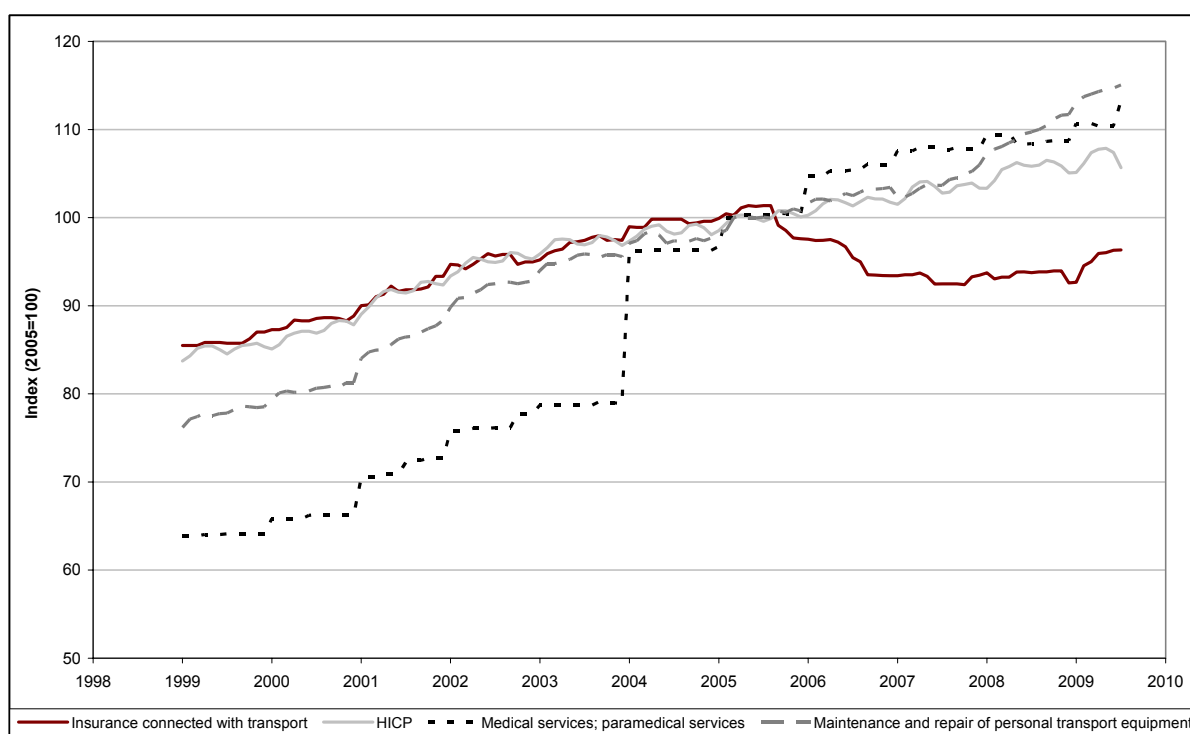


Premiums

6.162 Until the beginning of 2006 the price of motor insurance in the Netherlands moved broadly in line with general inflation (HICP) and vehicle maintenance and repair costs. After this period, however, motor insurance prices experienced a downward trend whilst the other price levels have continued to increase.

6.163 This trend is to some extent mirrored by data from the CEA: these show average M3PL premiums (across the whole market) of €269 in 2002 increasing to €290 in 2005, before subsequently falling back to €288 in 2006 and then €274 in 2007 (a six per cent drop from peak). The average own damage premium in 2006 was €382 (based on data from Verbond van Verzekeraars in Nederland, VvV); about 80 per cent of Dutch motorists are thought to have such own damage cover in addition to the compulsory M3PL product.

Figure 6.46: Evolution of the Motor Insurance and Related Indices in the Netherlands, 1999–2009



Source: Eurostat

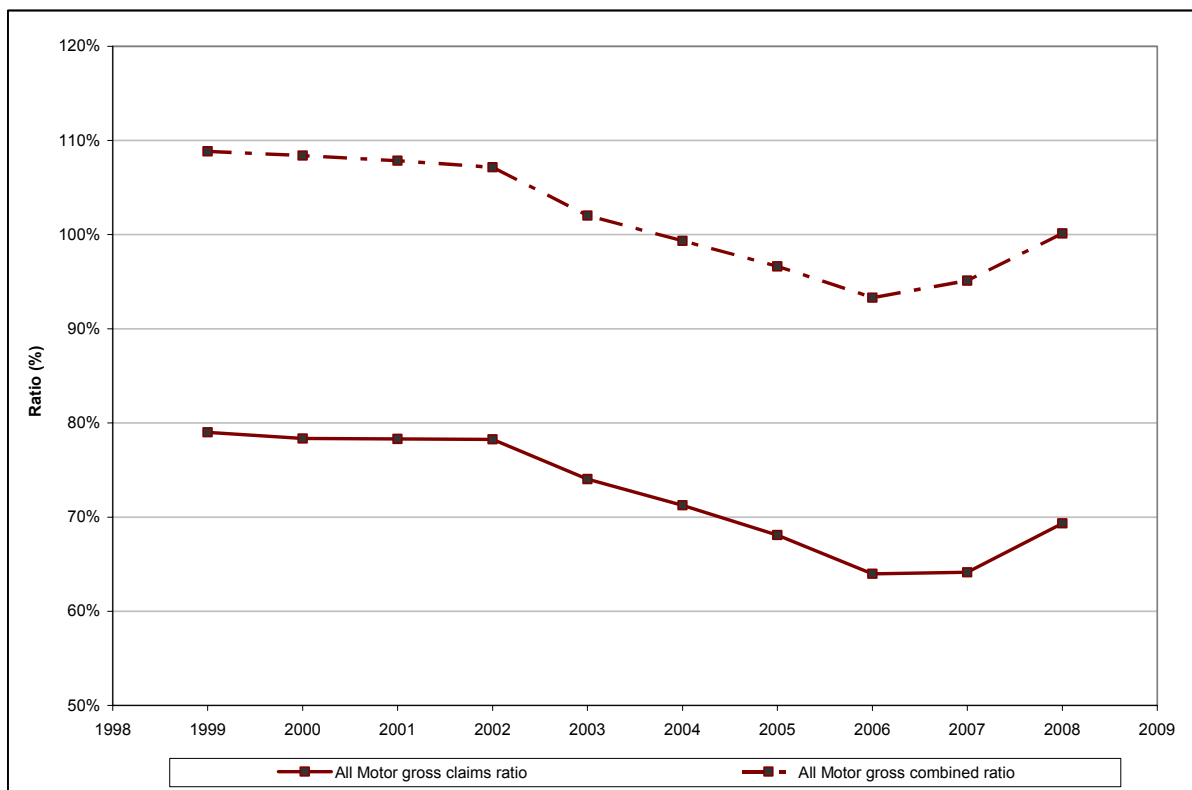
Profitability

6.164 The claims ratio for all motor insurance remained stable at around 78 per cent between 1998 and 2002, after which it declined through to 2006. This was driven by the rise in average M3PL premiums between 2002 and 2005, as the average cost of claims has remained relatively stable since 2002, ranging between €2,891 and €2,652.



- 6.165 Although claims frequency in M3PL has increased slightly, a significant decline in the number of stolen vehicles (which fell by 17 per cent in 2003 and has continued on a downward trend ever since) would have reduced overall claim frequency.
- 6.166 The expense ratio on all motor insurance has averaged about 30 per cent, i.e. the Dutch motor insurance sector has only become profitable at the underwriting level in 2004, after several years of chronic loss-making and returned to making a small underwriting loss in 2008.

Figure 6.47: Evolution of the Claims and Combined Ratios in the Netherlands, 1999–2008



Source: De Nederlandsche Bank, EE analysis

Poland

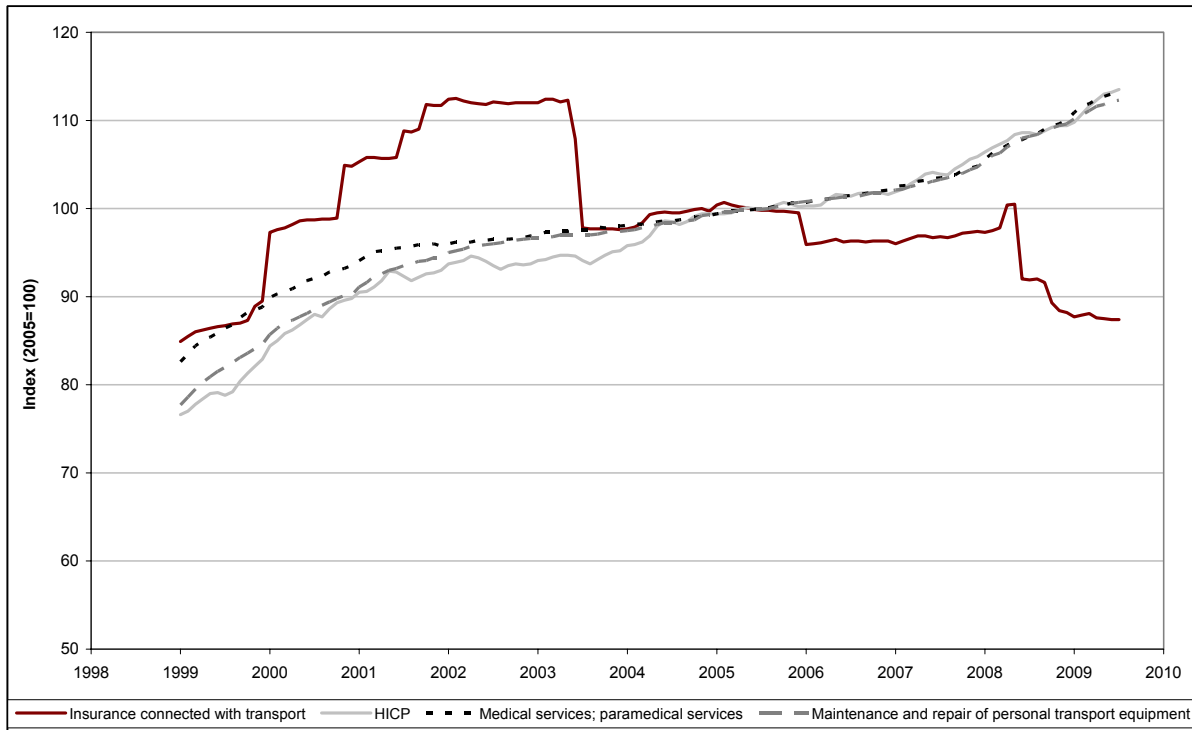
- 6.167 The motor insurance markets are highly concentrated in Poland (in large part because the market leader, PZU, has an approximate 50 per cent market share). Given that about 55 per cent of distribution is through tied intermediaries (with independent intermediaries contributing a further 15 per cent share), the competitive landscape is far from ideal.

Premiums

- 6.168 Motor insurance prices increased rapidly prior to accession — since when a declining trend has emerged. CEA data on average M3PL premiums run at variance to this — with an average of €66 in 2003 rising to €85 by 2006.



Figure 6.48: Evolution of the Motor Insurance and Related Indices in Poland, 1999–2009



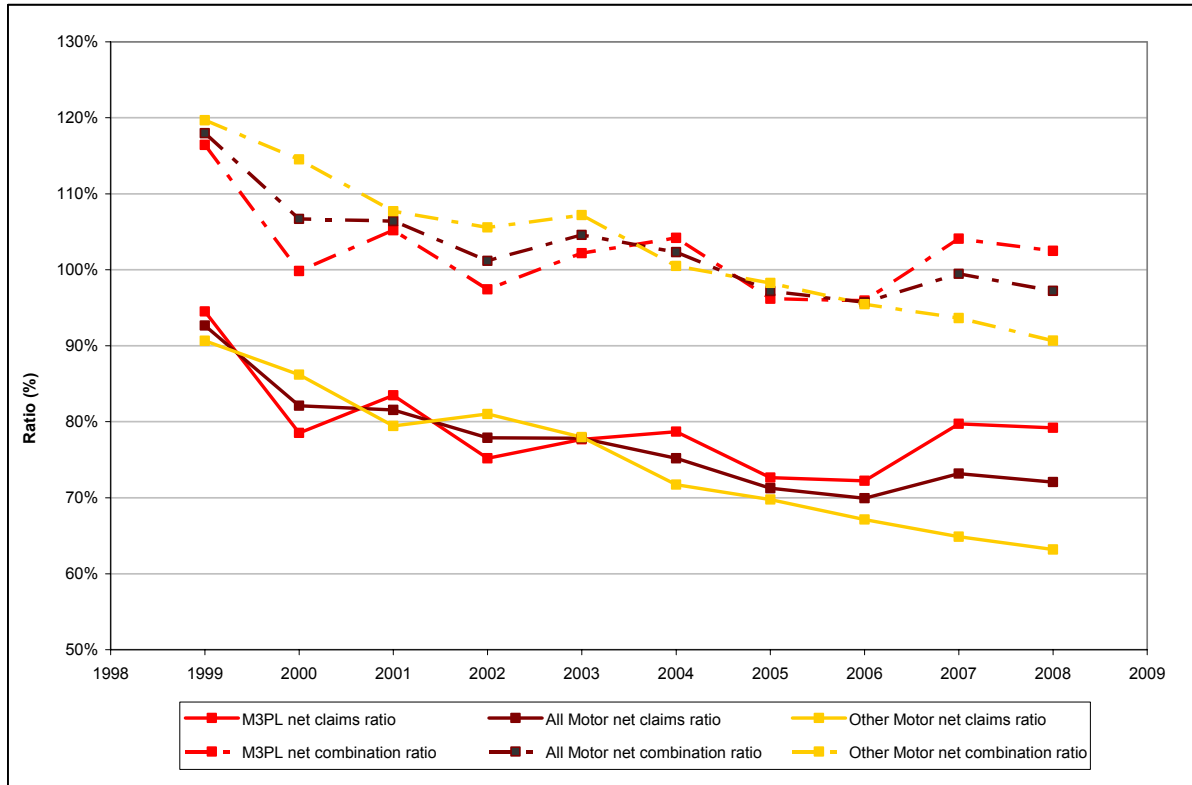
Source: Eurostat

Profitability

- 6.169 M3PL claim frequency has averaged around 4 per cent in the period 2003–06. Given that average claim values have increased from €908 in 2003 to €1,068 by 2006, the improvement in the claims ratio in this period matches with the M3PL premium inflation data rather better than with the HICP index component.
- 6.170 The claims ratio in own damage has been on a downwards secular trend throughout; that of M3PL declined until about 2005 when it stabilised at around 80 per cent. The net combined ratio for motor insurance was 105 per cent in 2003, improving to 97 per cent by 2008 (the expense ratio for M3PL is normally about 25 per cent, against a slightly higher rate in own damage covers). This means that the improvement in underwriting profitability has moved the industry away from the unsustainable levels of 2001, but is still not notably high.



Figure 6.49: Evolution of the Claims and Combined Ratios in Poland, 1999–2008



Source: Komisja Nadzoru Finansowego, EE analysis

Portugal

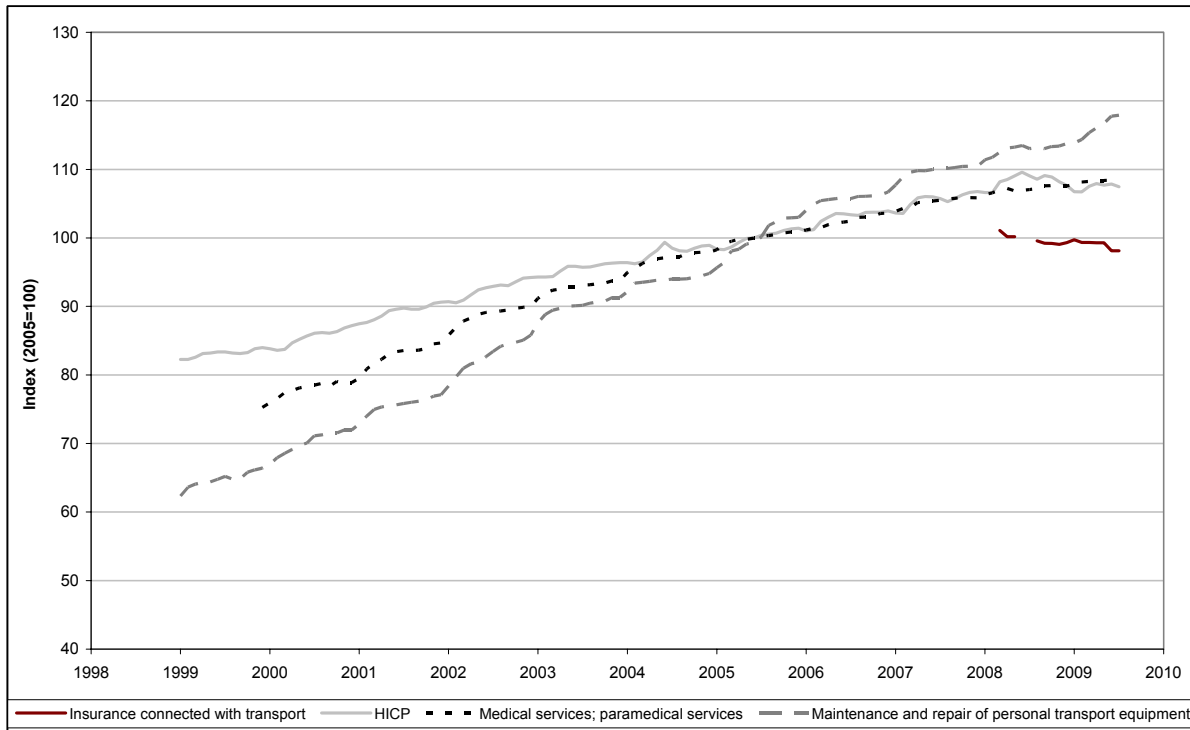
6.171 The M3PL and comprehensive segments are not highly concentrated by EU27 standards with a CR5 of 60 per cent. However, the distribution share of tied agents is just under 60 per cent which is likely to have a negative influence on competition.

Premiums

6.172 Motor insurance prices are not published as part of the HICP index in Portugal. CEA data indicate that M3PL premiums are on average relatively high, at about €310, driven by a relatively high claim frequency. Eurostat only have data on the path of the motor insurance index from January 2008.



Figure 6.50: Evolution of the Motor Insurance and Related Indices in Portugal, 1999–2009



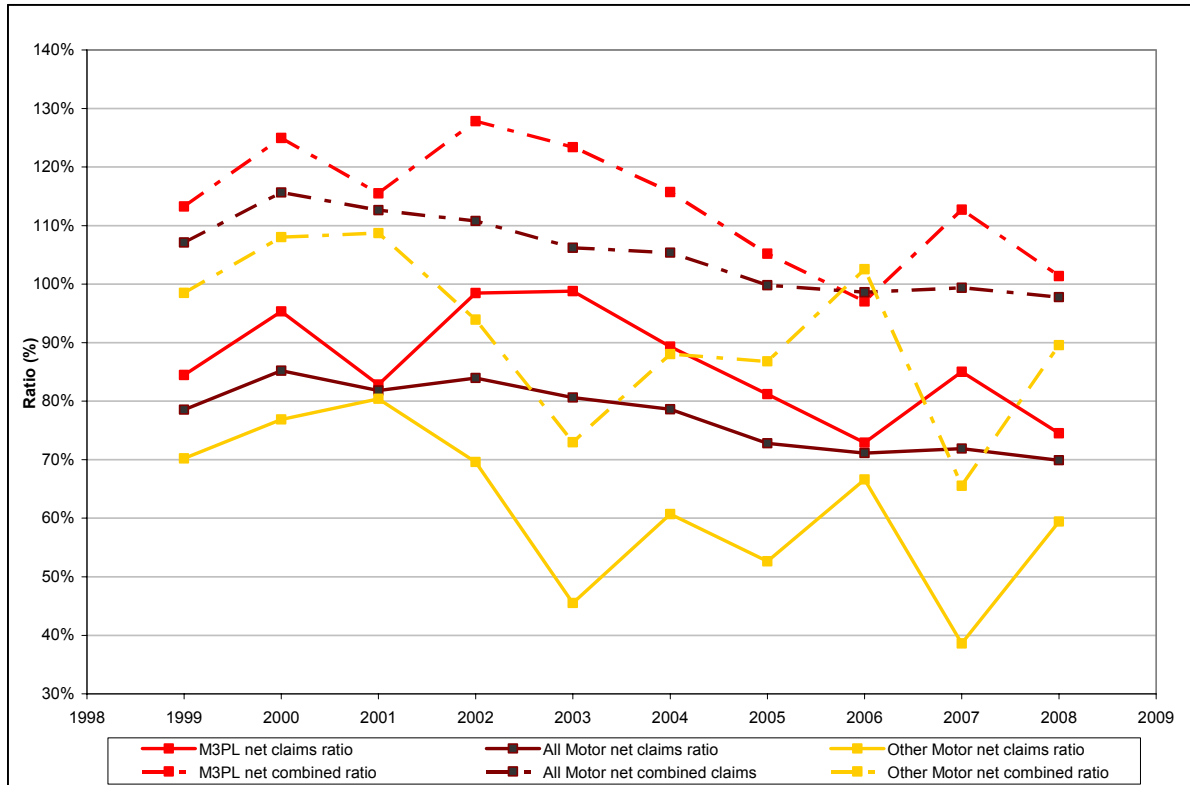
Source: Eurostat

Profitability

- 6.173 The claims ratio for all motor insurance has decreased slightly from 2002 to 2008, moving from about 80 in 1999 to about 70 per cent in 2008. The ratios for M3PL and comprehensive, however, have been more volatile, although the claims ratio in M3PL has remained above that of non-M3PL insurance. The decline in the M3PL claims ratio is the result of declining claims frequency since 2003 from 9.5 per cent to 7.5 per cent in 2006 (although this is still relatively high within the EU), which outweighed the increases in the average cost of claims over this period. The fall in the claims frequency is the result of the decreasing number of road accidents and fatalities over this period.
- 6.174 The comprehensive segment of the motor insurance market is more profitable than the M3PL, having made an underwriting profit since 2003 (relatively substantial in 2003 and 2007), with 2006 the only year in which an underwriting loss was recorded. With an expense ratio ranging between 23 and 28 per cent between 2003 and 2007, the M3PL segment has made a loss in every year except 2006. Overall, motor insurance has improved from a period of chronic loss-making (1999–2004) to a subsequent period of stabilisation around break-even.



Figure 6.51: Evolution of the Claims and Combined Ratios in Portugal, 1999–2008



Source: Instituto de Seguros de Portugal, EE analysis

Romania

6.175 Our data indicate that neither motor segment is significantly concentrated. The own damage segment is slightly less competitive (in the sense, at least, that the HHI is higher); there is a clear market leader in this insurance (with over 25 per cent of the market against a number two operator of 16 per cent) whereas in M3PL the largest insurer has a share of just over 16 per cent.

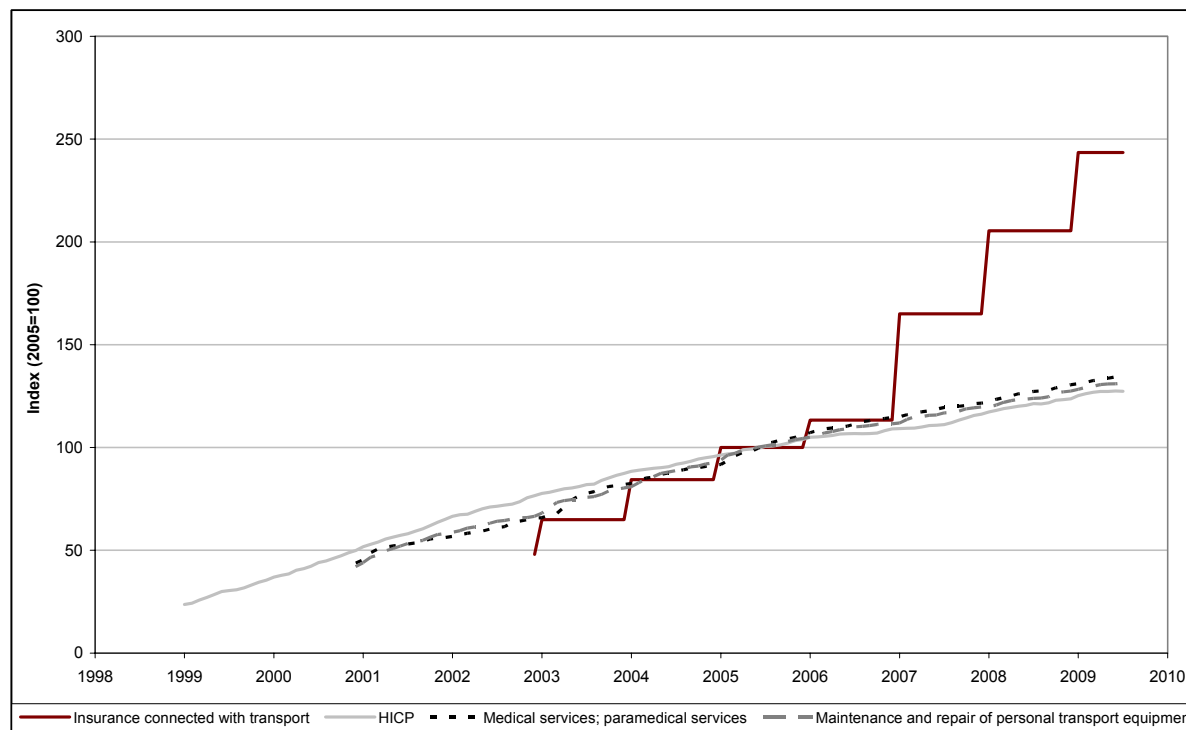
Premiums

6.176 We present below the evolution of motor insurance prices in Romania. The compensation limits for compulsory M3PL insurance in Romania have increased significantly as a result of accession to the EU. In 2003, the limits were €22,845 for property damage and €28,557 for bodily injury and death.⁷³ By 2007, these were €100,000 and €500,000 respectively and by 2009 these rates had increased to €300,000 and €1,500,000. This has resulted in significant inflation of average claim values and subsequently these have been substantially passed through to premium levels.

⁷³ These have been translated from lei at the rate ruling at the beginning of 2003 and as reported by the Comisia de Supraveghere a Asigurarilor (CSA) in its Annual Report 2007.



Figure 6.52: Evolution of Motor Insurance and Related Indices in Romania, 1999–2009



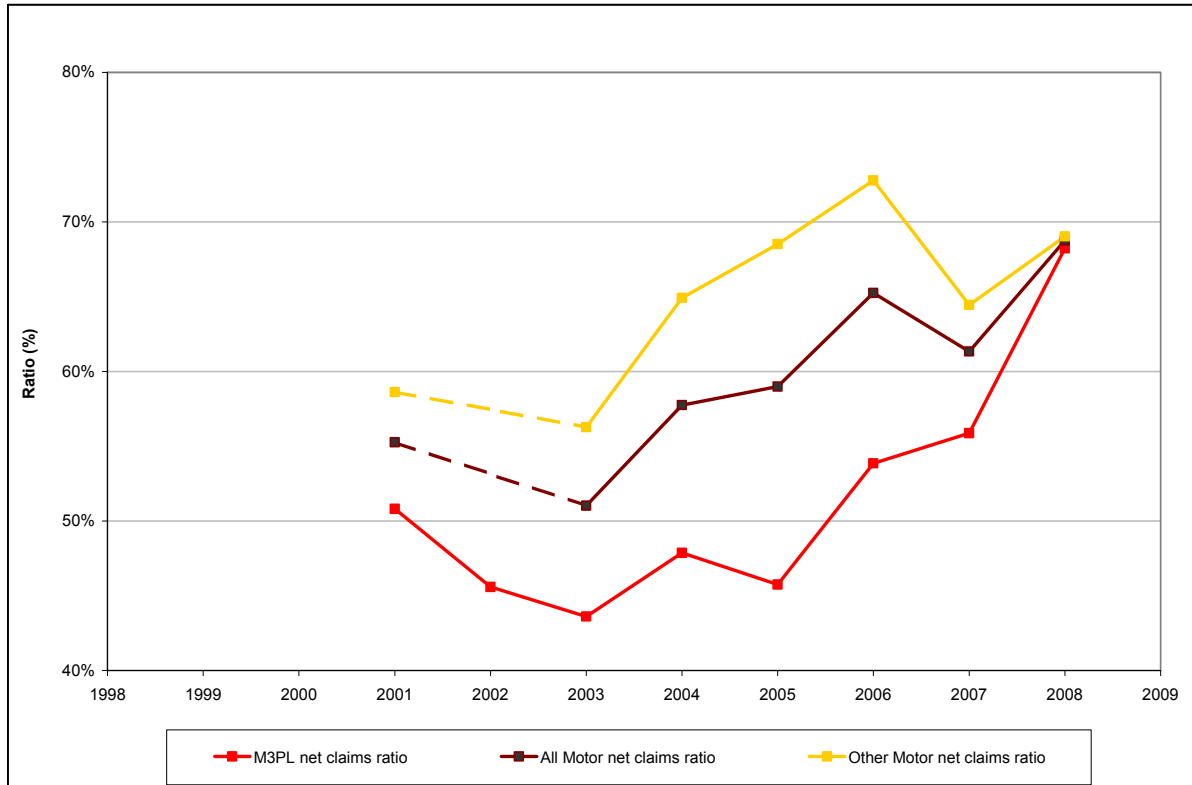
Source: Eurostat

Profitability

6.177 Claims frequency in M3PL has also increased — from 4.4 per cent in 2003 up to 6.1 per cent in 2006 and to 7 per cent in 2007. This has driven an increase in the reported M3PL claims ratio (i.e. insurers have not been able to pass on both the increase in claim values and in claim frequency).



Figure 6.53: Evolution of the Claims Ratio in Romania, 2001–2008



Source: Comisia de Supraveghere a Asigurarilor, EE analysis

6.178 The expense ratio is between 30 and 40 per cent (being at about 40 per cent in M3PL insurance). This means that M3PL recorded an underwriting loss in 2008 but that motor insurance has recorded underwriting profits until at least 2008.

Slovakia

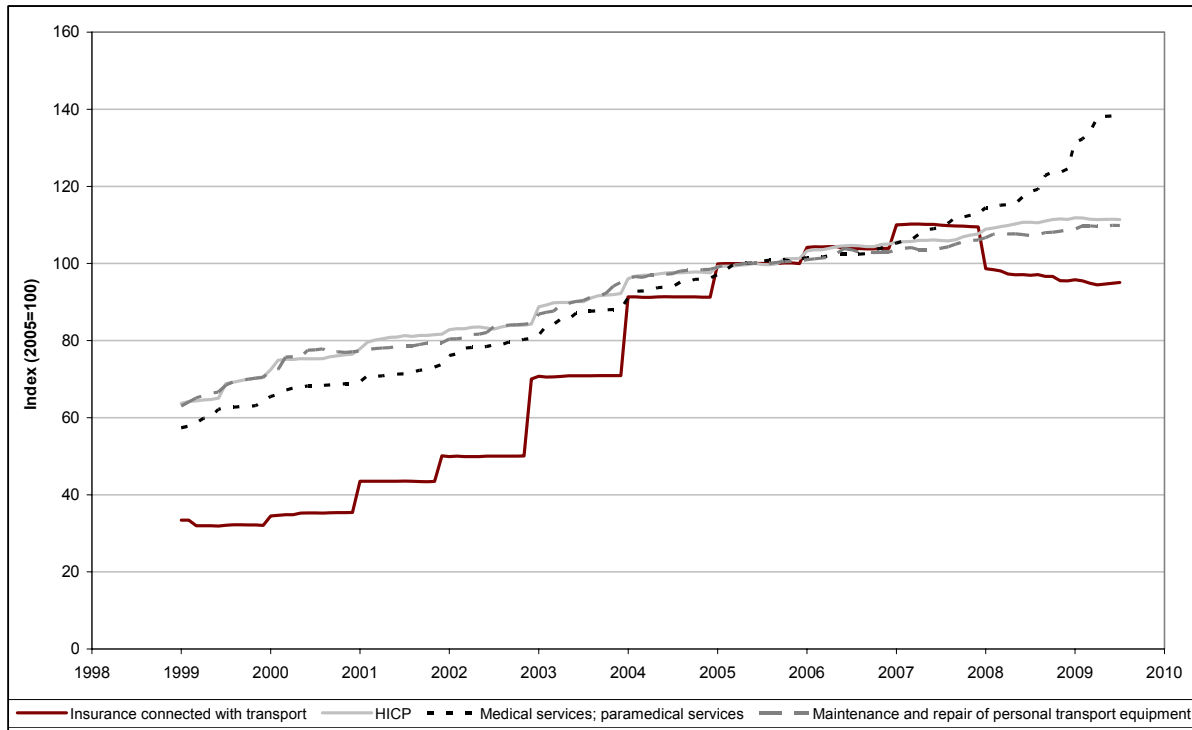
6.179 Markets for M3PL and comprehensive cover in Slovakia are amongst the most concentrated in the EU27. On the other hand, in comparison with the rest of the EU, independent intermediaries play a more significant role in the distribution of motor insurance, with about half of distribution being through independent intermediaries.

Premiums

6.180 After a period of stepped inflationary increases up to accession, premiums have cycled up and down since. This is illustrated in Figure 6.54 below.



Figure 6.54: Evolution of the Motor Insurance and Related Indices in Slovakia, 1999-2009



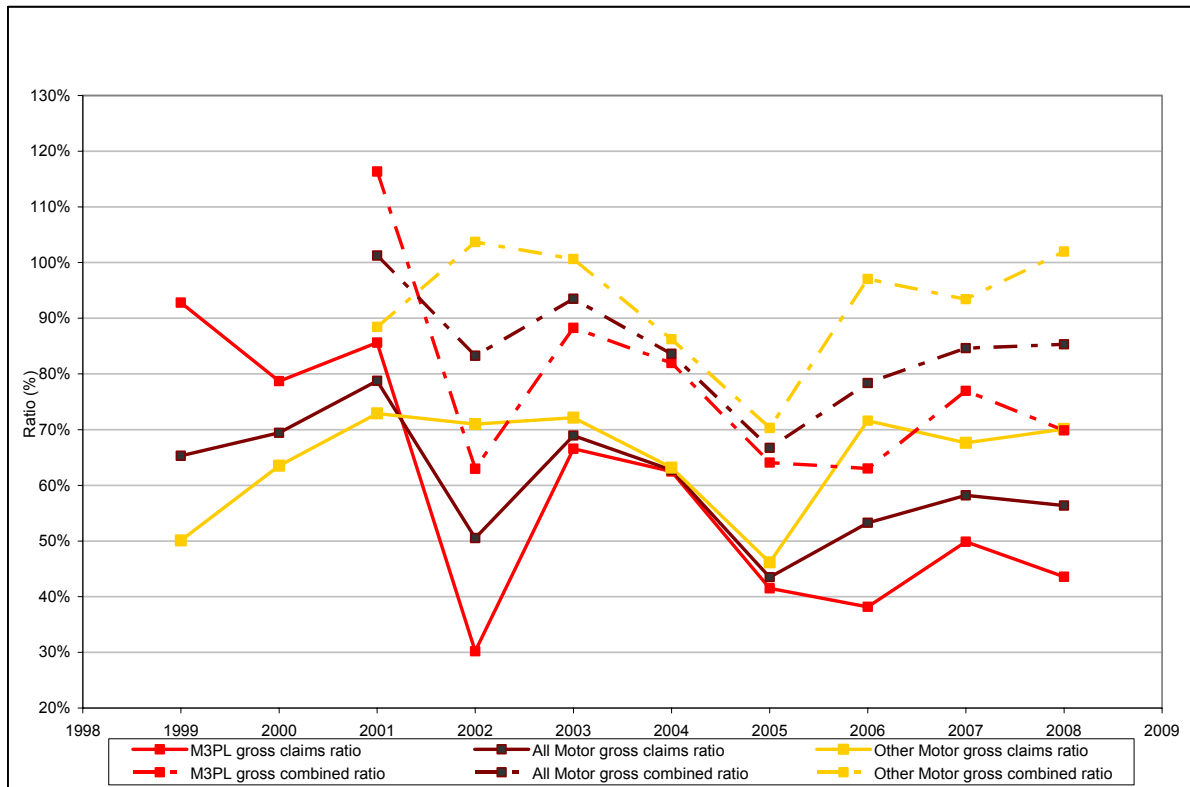
Source: Eurostat

Profitability

- 6.181 Somewhat unusually, the Slovakian M3PL sector has had a consistently lower claims ratio experience than comprehensive cover since 2002 (it is normal market practice to purchase these covers separately in Slovakia).
- 6.182 Claim frequency has been trending upward since 2005–06 (being 6.8 per cent in 2006) without any clear trend being established in average claim value. Despite the upward trend apparent since 2004–05, the loss ratios remain relatively low by international comparison (although rather less so in the context of most of the CEE Member States).
- 6.183 With a net expense ratio of 25–30 per cent, underwriting profits have been consistently achieved in motor insurance as a whole since 2001.



Figure 6.55: Evolution of the Claims and Combined Ratios in Slovakia, 1999-2008



Source: Národná banka Slovenska, EE analysis

Slovenia

6.184 The Slovenian motor insurance market is dominated by a single operator, Triglav, which holds a 53 per cent share in non-life insurance as a whole. In addition, the number two and three operators hold around 35 per cent of the market between them, making Slovenia the most concentrated market in the EU27. Distribution is through a mix of channels, but predominately via tied/multi-tied agents (at nearly 70 per cent). Independent brokers are present but their role is more important in commercial lines rather than retail lines. This distribution structure is likely to emphasise the concentrated nature of the market.

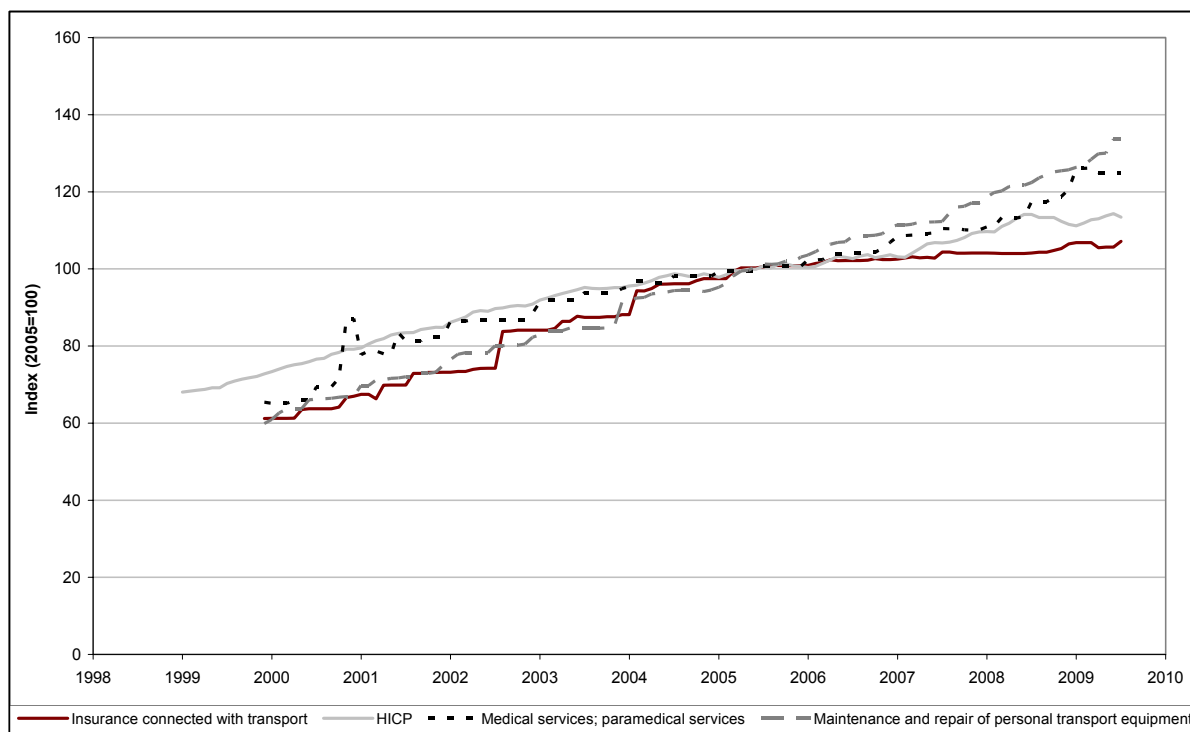
6.185 Retention (the inverse of attrition) in motor insurance is moderately low — at around 80 per cent — with little difference between M3PL and comprehensive cover.

Premiums

6.186 The price of motor insurance has moved broadly in line with general consumer prices, the cost of medical services and the cost of motor repairs and maintenance until 2006. After this date, motor insurance prices have flattened out whilst the other indices continued their upward trend. CEA data indicate that having appreciated significantly from €116 in 2001, the average M3PL premium has been flat at about €190–€195 since 2004.



Figure 6.56: Evolution of the Motor Insurance and Related Indices in Slovenia, 1999–2009



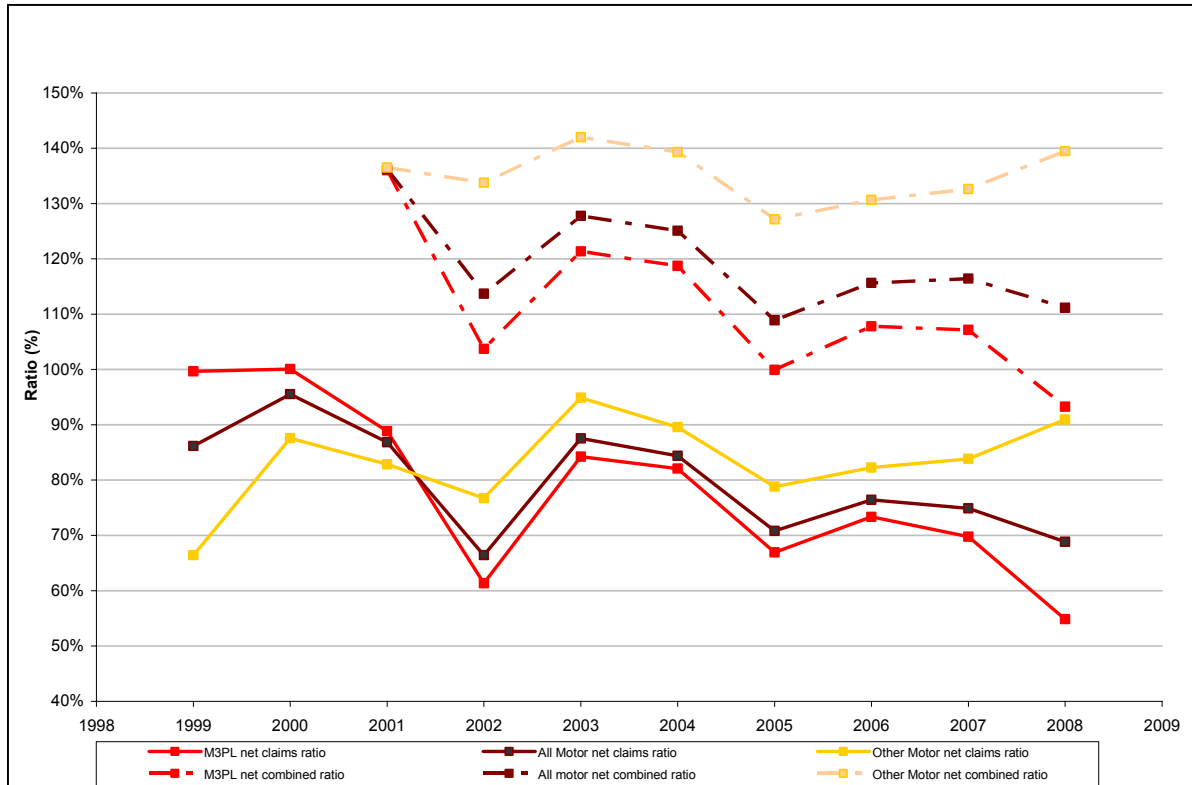
Source: Eurostat

Profitability

6.187 Claims frequency has remained relatively stable, moving between 4.3 per cent and 4.7 per cent. Average premiums have increased steadily since 2003 to counter the increases in average claims values. The claims ratio for comprehensive cover has remained higher than that of M3PL since 2002, and all segments of the market have made an underwriting loss since 2001 with the exception of M3PL in 2005 and again in 2008. This is likely to inhibit market entry into this part of the Slovenian insurance market.



Figure 6.57: Evolution of the Claims and Combined Ratios in Slovenia, 1999–2008



Source: Agencija za zavarovalni Nadzor, EE analysis

6.188 The number of road accidents has remained relatively stable between 2003 and 2007, although the number of road fatalities has increased.

Spain

6.189 Both M3PL and comprehensive cover in Spain rank as being relatively unconcentrated markets in the EU27. On the other hand, in terms of distribution, tied intermediaries retain an important role (with up to 50 per cent of distribution). Independent intermediaries (brokers) represent about one fifth of sales.

6.190 The main recent change has been the emergence of direct operators (by phone and internet, but mostly the latter). However, whilst such direct insurers entered market as long ago as 1994, these have just 10 per cent now.

6.191 An interviewed market participant estimated customer attrition currently at about 15–16 per cent: this is not high by the standards of some of the countries for which we have data (i.e. the UK) but represents an increase on past experience in Spain.

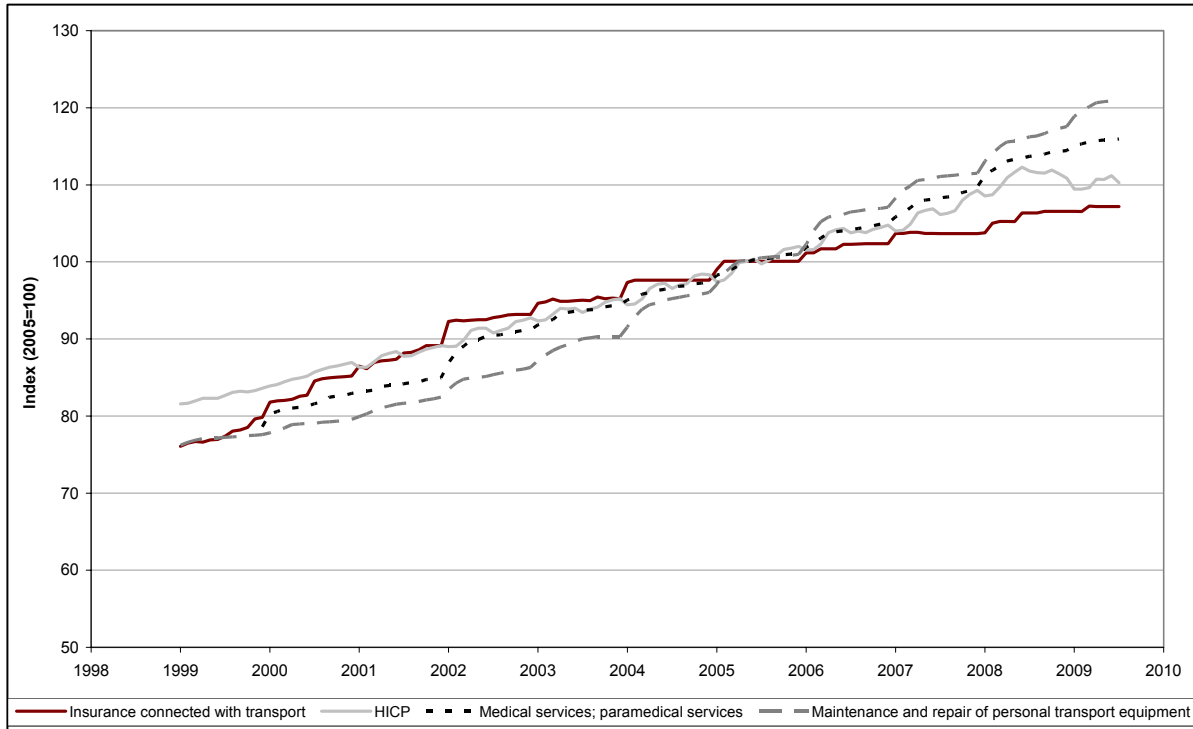
Premiums

6.192 The cost of motor insurance for an average car in Spain increased very closely in line with changes in inflation in other related areas including, maintenance and repair costs,



medical and paramedical costs, and general consumer prices. From 2005 the inflation in motor insurance has increased at a slower rate than the inflation in the other price indices.

Figure 6.58: Evolution of the Motor Insurance and Related Indices in Spain, 1999-2009



Source: Eurostat

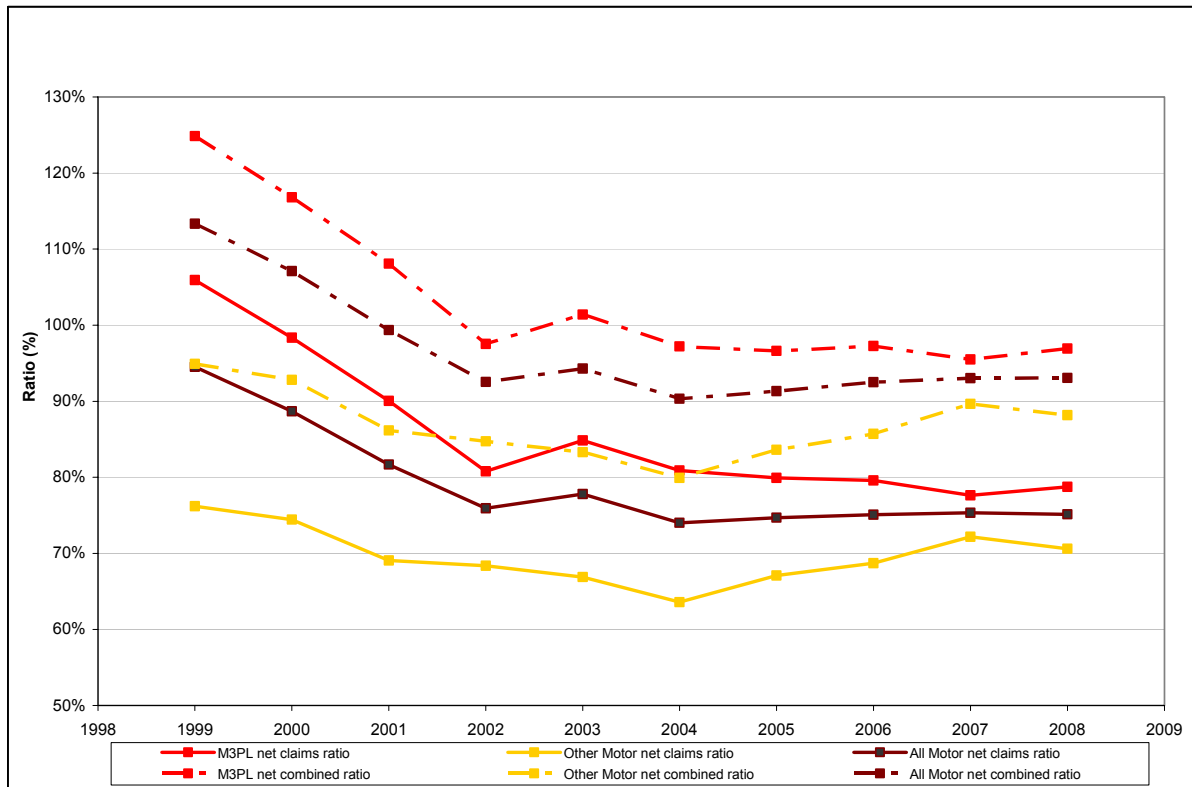
Profitability

6.193 Claim frequency in M3PL has declined in the recent past in Spain from 16.4 per cent in 2003 to under 13.9 per cent in 2006: this level of claim frequency remains an outlier in Europe. Average claim values are also relatively low (in the context of Western Europe), averaging around €1,350 in 2003–06. The claims ratios of M3PL and comprehensive covers have converged somewhat since 2004.

6.194 The Spanish motor insurance industry has a very low net expense ratio, tending to be around 17–19 per cent. This means that the industry has been stably profitable at the underwriting level since 2001.



Figure 6.59: Evolution of the Claims and Combined Ratios in Spain, 1999-2008



Source: Dirección General de Seguros y Fondos de Pensiones, EE analysis

Sweden

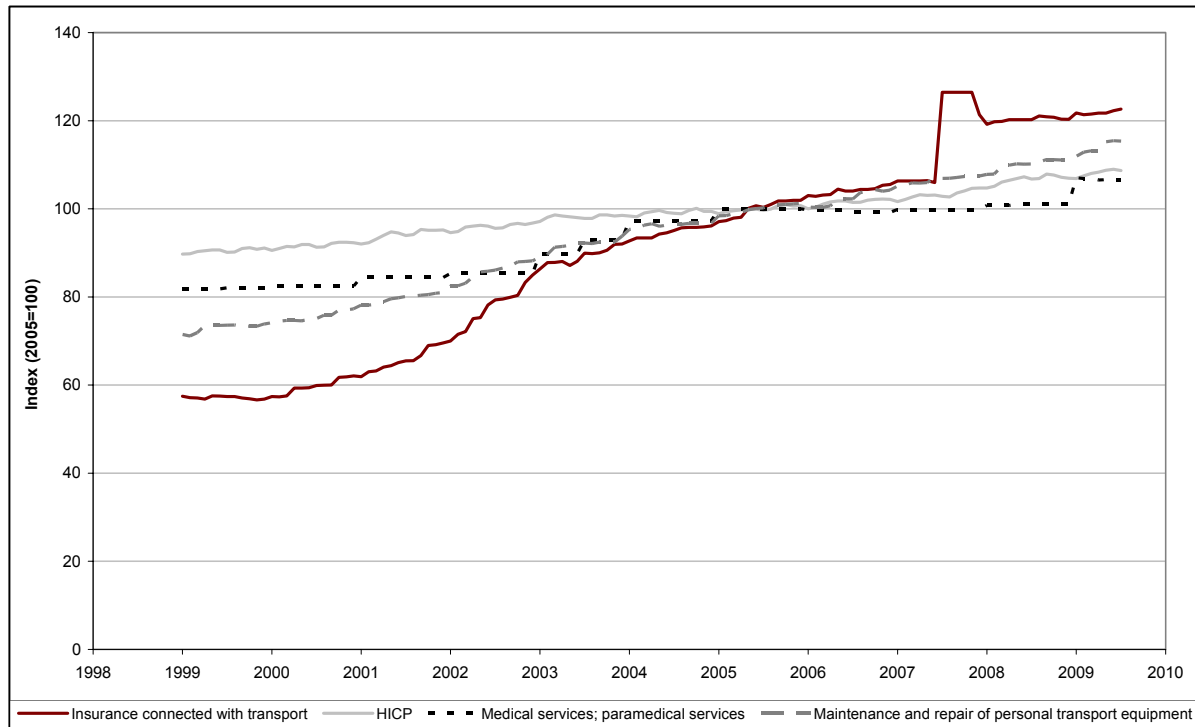
6.195 The motor insurance market in Sweden is highly concentrated, with the three leading operators holding 79 per cent of the market. The distribution mix is likely to further dampen competition — POS in car dealerships is important: some insurers partner with car manufacturers so that the insurance is sold under the brand name of the car maker).

Premiums

6.196 Until the beginning of 2007 the price level of motor insurance in Sweden increased broadly in line with general price inflation and the cost of vehicle repair and maintenance, albeit at a slightly faster rate before 2003. The cost of medical expenses has remained more stable and motor insurance prices grew much more rapidly than this index until 2003. An insurance premium tax was introduced in 2007.



Figure 6.60: Evolution of the Motor Insurance and Related Indices in Sweden, 1999–2009



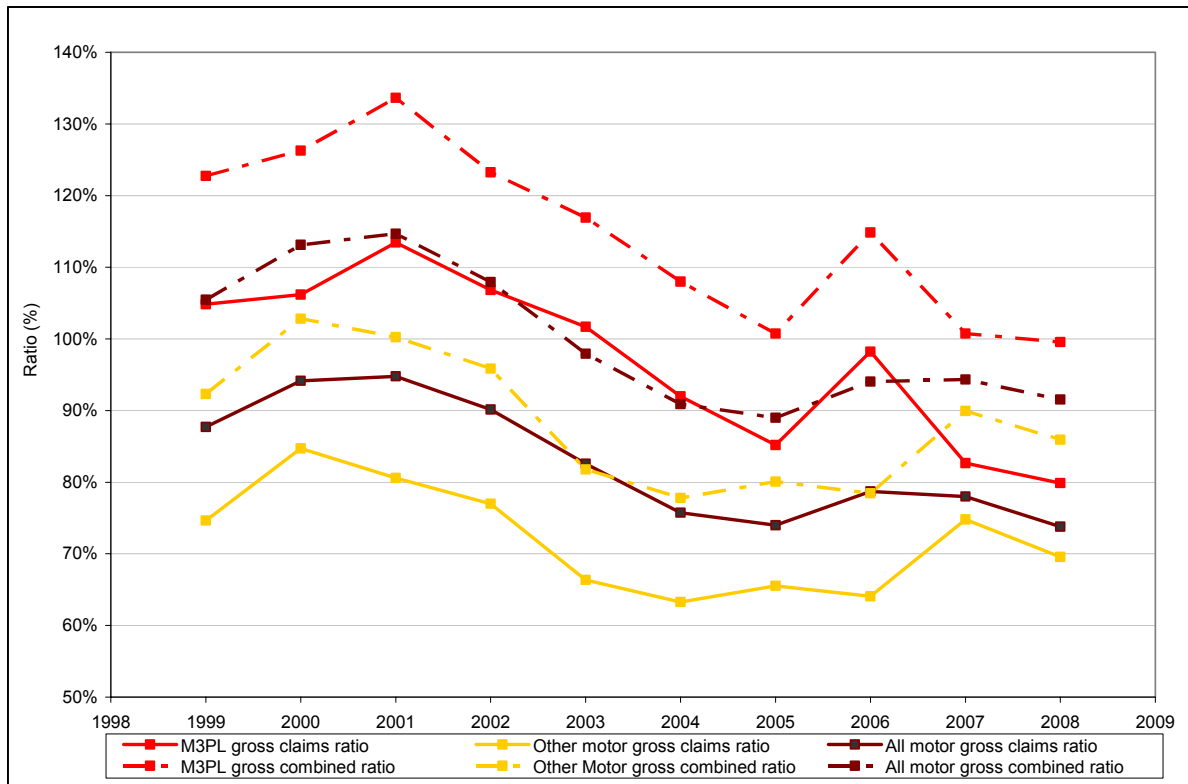
Source: Eurostat

Profitability

- 6.197 At the turn of the century, Swedish insurers became more focused upon the profitability of individual products and this led to both the period of more rapid price inflation (2000–2003 seen above) and to a reduction in the claims ratio. The claims ratio of all motor insurance had remained relatively constant since 2003, fluctuating between 70 and 80 per cent over the period. This has been combined with a sustained underwriting profit (with a low expense ratio of 15–20 per cent). The profitability has stemmed from the comprehensive segment, as M3PL has generated a loss every year (although breakeven was achieved in 2008).
- 6.198 The M3PL segment has experienced both increasing average cost of claims and rising claims frequency (although changes in the latter have been less marked). Average premiums have had to increase over this period to match this rise in the burning cost. The increasing number of road accidents in Sweden since 2000 explains some of the increase in the M3PL claims frequency and claims values.



Figure 6.61: Evolution of the Claims and Combined Ratios in Sweden, 1999–2008



Source: Finansinspektionen, EE analysis

UK

6.199 The CR5 in both segments is just under 60 per cent. However, the UK has almost double the number of operators in motor insurance of any other Member State and the HHI that we have calculated ranks the UK as one of the less concentrated markets in the EU.

6.200 Distribution tends to be either direct (44 per cent) or through independent intermediaries (including online ones) at 35 per cent. The high penetration by brokers means that customer ownership has often not historically rested with the insurer. This has driven competition (e.g. it promotes greater transparency and so facilitates price competition). The “direct revolution” (the shift in distribution towards insurers selling low-cost product directly to consumers via the phone and then the internet) challenged this, but the market is evolving again with a shift to aggregators (e.g. www.confused.com, etc).

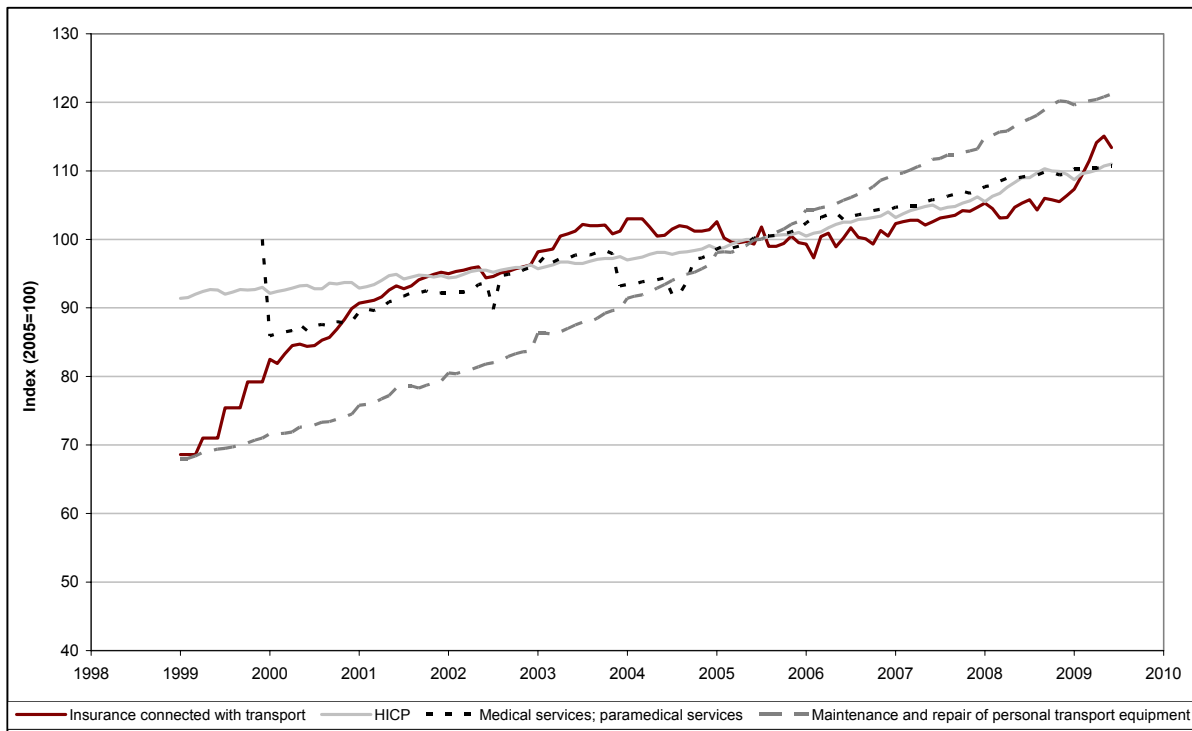
6.201 The level of customer retention is heavily dependent upon the distribution channel: a direct insurer may retain 80 per cent of its customers year-on-year; motor insurers selling primarily through independent intermediaries or through aggregators may retain just 60 per cent.



Premiums

6.202 We present below the evolution of motor insurance prices in the UK. Motor insurance experienced a high degree of price inflation in the period to 2002. Since then, motor insurance has moved largely in line with general inflation (HICP) but behind the cost of maintaining and repairing motor vehicles.

Figure 6.62: Evolution of the Motor Insurance and Related Indices in the UK, 1999–2009



Source: Eurostat

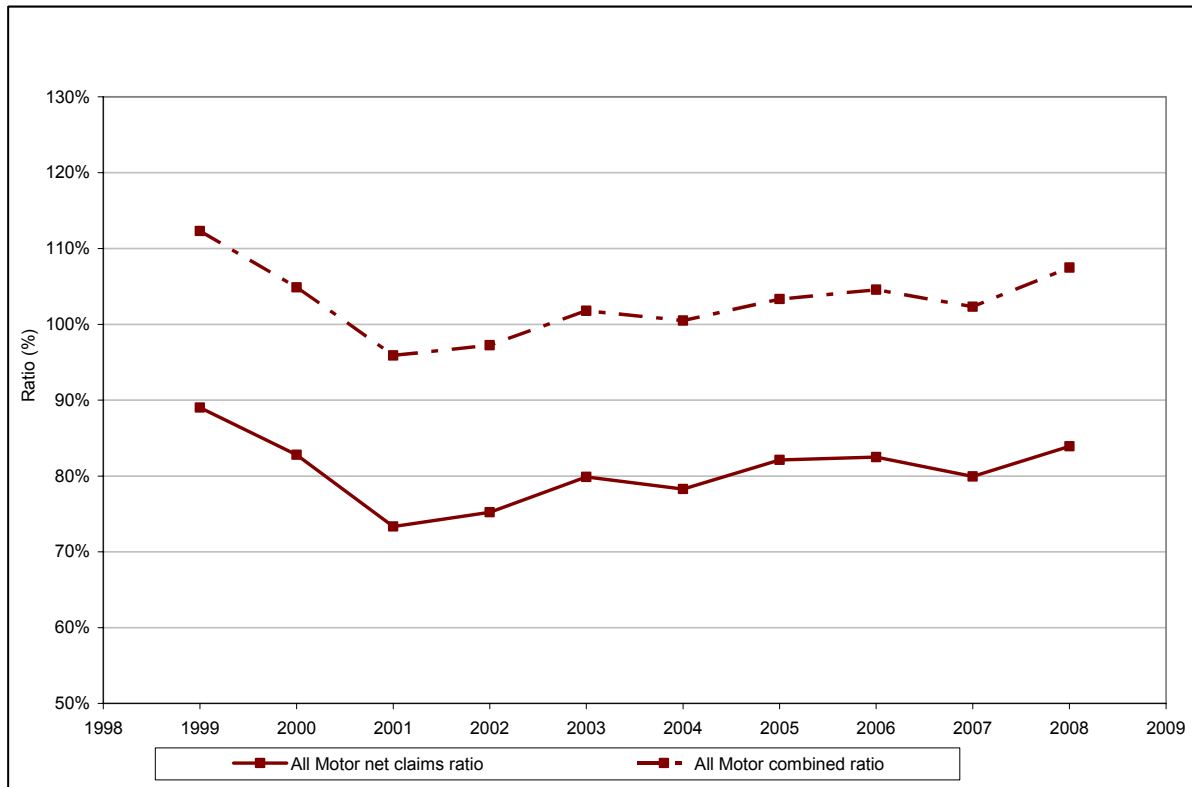
Profitability

6.203 We have already noted the real inflation in motor insurance prices up to 2002. This coincided with the claims ratio experiencing a significant improvement (from the perspective of insurers).

6.204 However, the claims ratio has been on secular upward trend since then. The expense ratio has not changed significantly, being close to 22 per cent in nearly all years. This means that the UK private motor insurance market has not made an underwriting profit in any year in the period except in 2001–02. However, net profits have been generated through investment performance.



Figure 6.63: Evolution of the Claims and Combined Ratios in the UK, 1999–2008



Source: Association of British Insurers, EE analysis

6.205 Over 50 per cent of UK claims relate to accidental damage (i.e. first party risks).⁷⁴ Property damage (a M3PL risk) has increased to about one third of total claims. There has been a significant decline in theft of cars in the period. In 1999, vehicle theft in that year was in excess of 1.5 per cent of the total stock. By 2006, this had declined to about 0.6 per cent.

The USA Selected States — State by State

Connecticut

6.206 Connecticut is a relatively unconcentrated market in motor insurance (relative both to the other USA States and to most of the EU27). In common with all of the Selected USA States, distribution is characterised as being heavily geared towards independent intermediation.

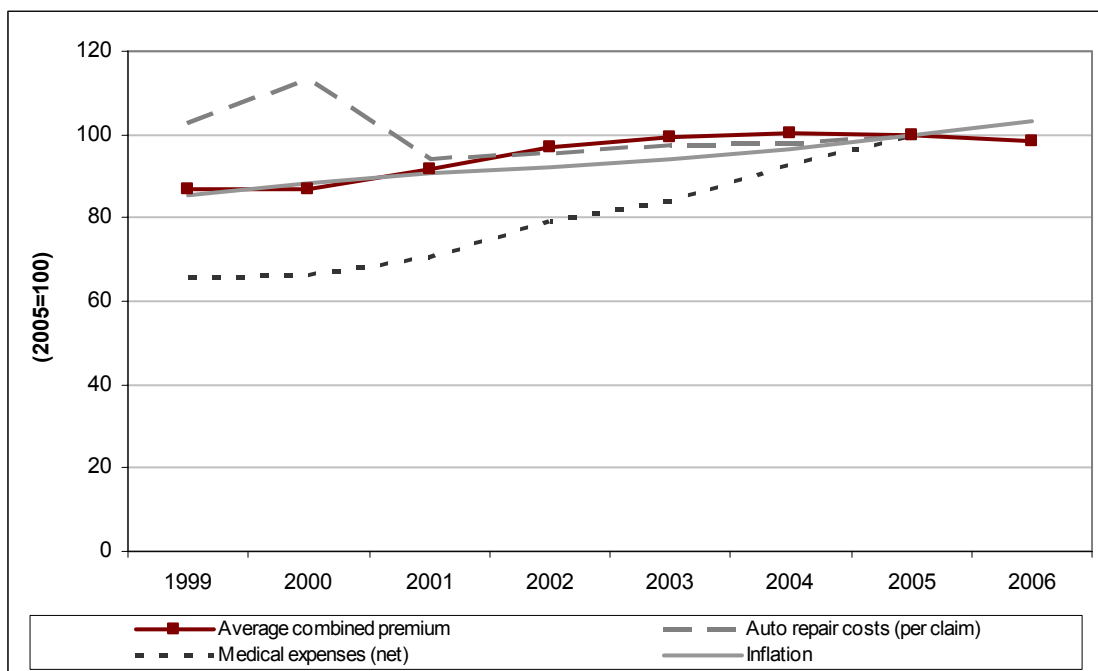
⁷⁴ ABI Motor Bulletin, 2007



Premiums

6.207 The evolution of the average combined motor premium has been heavily influenced by the evolution in medical expenses up to 2003 (aggregate bodily injury premiums in Connecticut are almost double those for physical liability, i.e. property damage). This implies that an increased proportion of premiums are being expended on medical costs. The average cost per claim of auto repair has not changed significantly (in dollar terms) over the period (other than a spike in 2000).

Figure 6.64: Evolution of Motor Premiums in Connecticut, 1999-2006



Source: NAIC

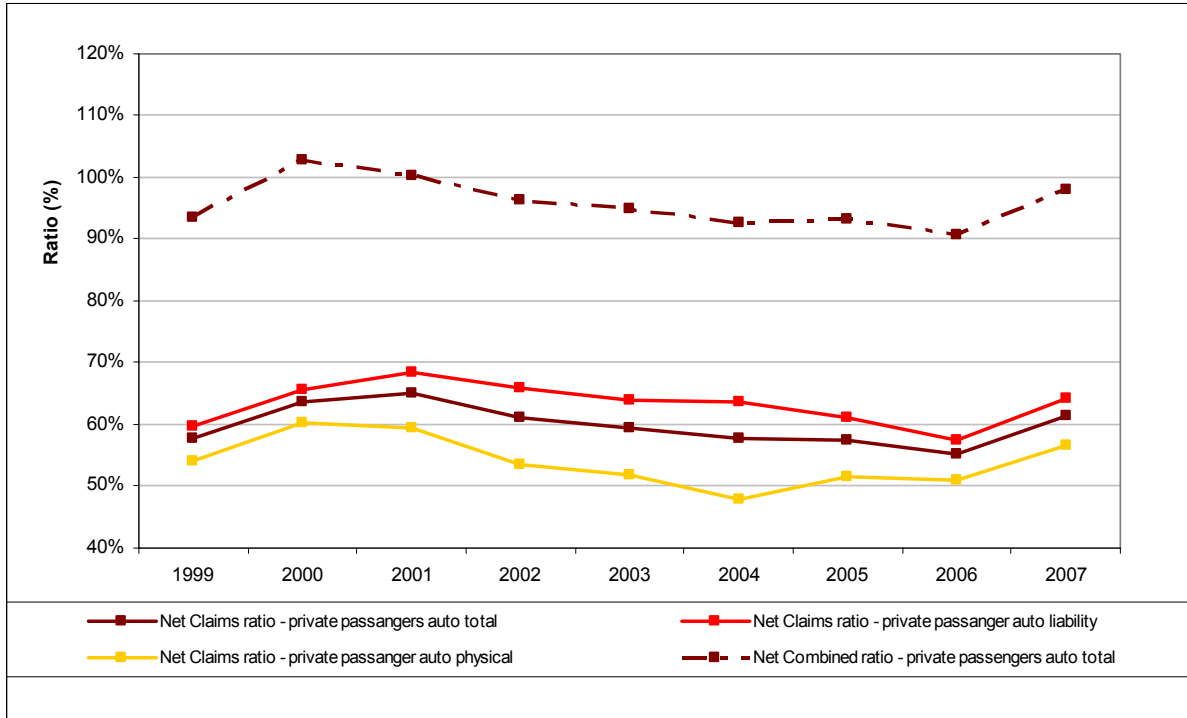
Profitability

6.208 The expense ratio in Connecticut has moved between 35 and 40 per cent (being 36.6 per cent in 2007). The high net claims ratio recorded in 2000 and 2001 resulted in losses at the underwriting level. However, the period has seen a significant secular downward trend in claim frequency. Vehicle thefts (per 1000 vehicles) have declined from 4.01 in 1999 to 3.25 in 2005 (with a brief spike to just over 4.5 in 2001). The rate of fatalities (relative to usage) has shown a similar trend (including the spike upwards in 2001). The average claim per policy peaked in 2002 and has reduced from this peak by 8 per cent.

6.209 The result has been a downward trend in the net claims ratio, until 2007. That premiums have not matched cost inflation in the latter period has driven this adverse result. However, the combined ratio has largely remained within a band between 90 and 100 per cent.



Figure 6.65: Evolution in the Claims and Combined Ratios in Connecticut, 1999-2007



Source: NAIC, EE analysis

Maine

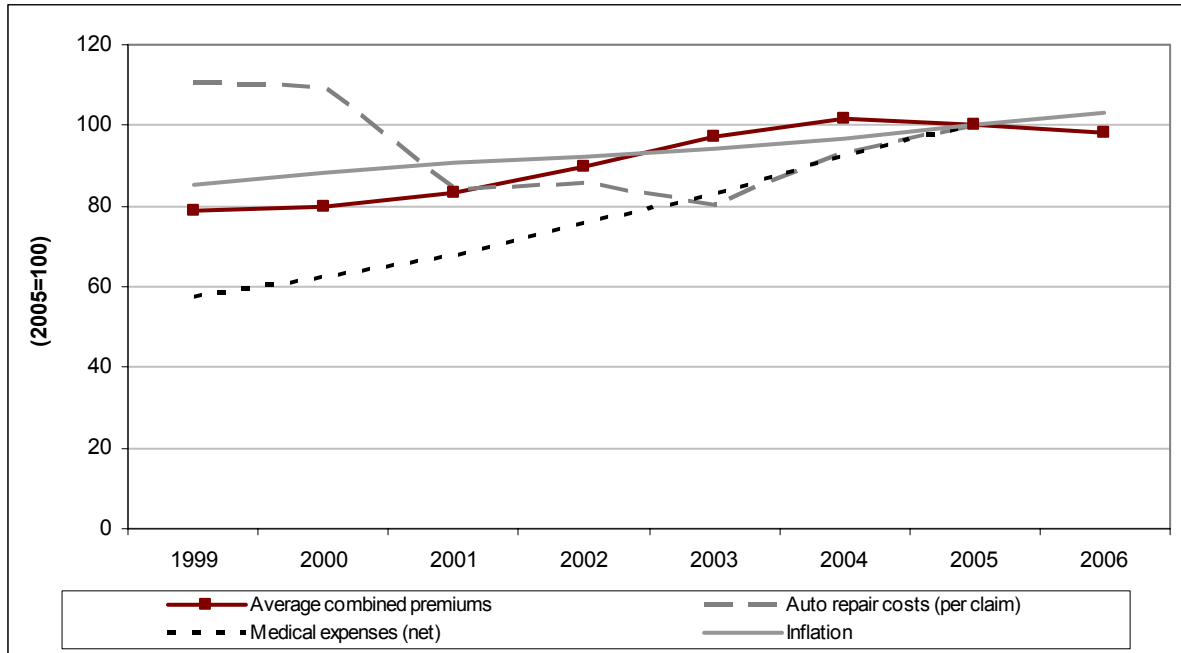
6.210 Maine is not a concentrated market in motor insurance (relative both to the other USA States and to most of the EU27). Again, similar to Connecticut, distribution is characterised as being heavily geared towards independent intermediation.

Premiums

6.211 Average repair costs per claim have been somewhat volatile over the period, although for the most part below the peak values around 1999–2000. Average premiums have lagged the inflation in medical expenses.



Figure 6.66: Evolution of Motor Premiums in Maine, 1999-2006



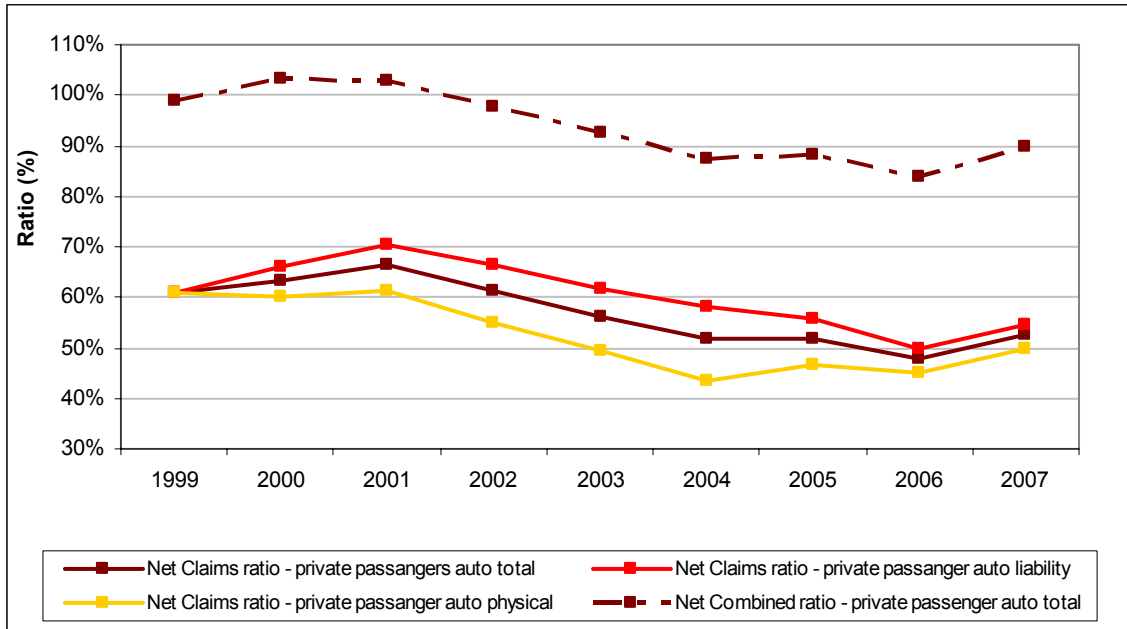
Source: NAIC

Profitability

- 6.212 The prevalence of fatal accidents (relative to vehicle mileage) peaked in 2001–02 as did vehicle thefts (relative to the number of registered vehicles). The rates prevailing in 2005 were 30.1 and 31.4 per cent below the peak levels.
- 6.213 The secular decline in net claims ratios from 2001 through to 2006 is therefore unsurprising. Similarly, the decline in the nominal value of average premiums in 2005 and 2006 has resulted in the reversal of this trend.
- 6.214 Over the period, the expense ratio in Maine has moved between 35 and 40 per cent (being 37.2 per cent in 2007) — the decline in the net claims ratio has introduced the sector to a comfortable level of profitability at the underwriting level in the period 2003–07.



Figure 6.67: Evolution in the Claims and Combined Ratios in Maine, 1999-2007



Source: NAIC, EE analysis

New Jersey

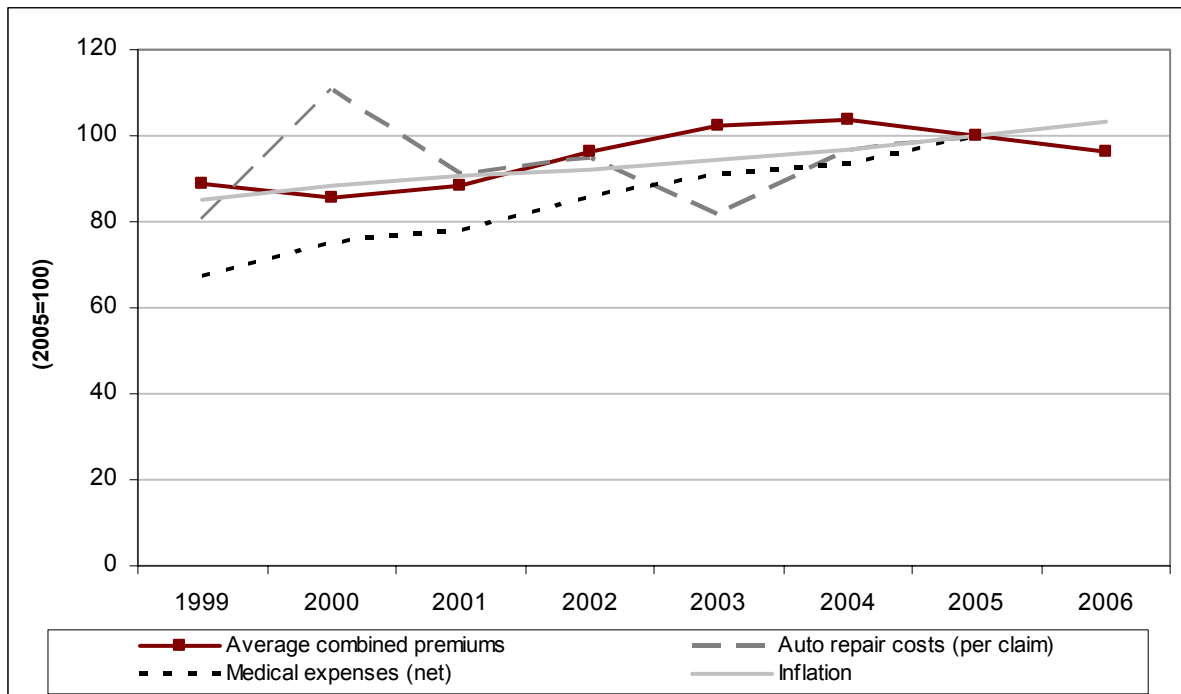
6.215 New Jersey is more concentrated than most of the other Selected USA States but to a lesser extent than most of the EU27. Distribution is characterised as being heavily geared towards independent intermediation.

Premiums

6.216 In line with Connecticut and Maine, average premiums in New Jersey have tended to, at best, track the rate of annual change in medical costs before reaching a plateau and then declining. Average auto repair costs — although volatile — have not trended up or down over the period considered.



Figure 6.68: Evolution of Motor Premiums in New Jersey, 1999-2006



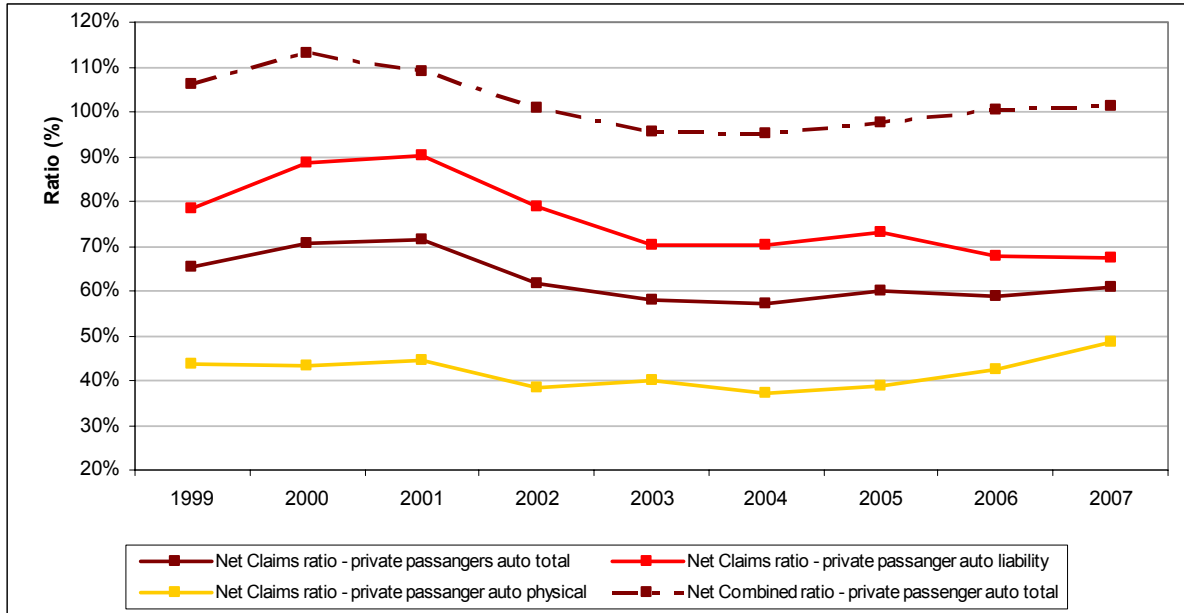
Source: NAIC

Profitability

6.217 Both vehicle theft rates and fatalities have tracked downwards over the period. Whilst this has driven reduced claim frequency, the stabilisation (and, indeed, reduction after 2004) in average premiums evidenced above have restricted the improvement in the net claims ratio.



Figure 6.69: Evolution in the Claims and Combined Ratios in New Jersey, 1999-2007



Source: NAIC, EE analysis

6.218 The expense ratio in New Jersey is rather higher than in the other USA States reviewed — in 2007 expenses were 40.7 per cent of net premiums earned. There are two main factors in this: first, the claims management costs were relatively high; and, second, the dividend paid to policyholders tends to be 2–3 times greater (relative to premiums) in New Jersey. This latter aspect is a historic aspect of the New Jersey market across all lines.

6.219 The result is that auto insurance has been largely unprofitable in New Jersey in the period 1998–2007, at least at the underwriting level. This is notwithstanding average claims per policy peaking in 2001 and reducing by 10 per cent subsequently. Overall net profits have been driven by the investment returns achieved (of course, the relatively high investment returns should be weighed, at least in part, against the relatively high dividend payout to policyholders).

New York

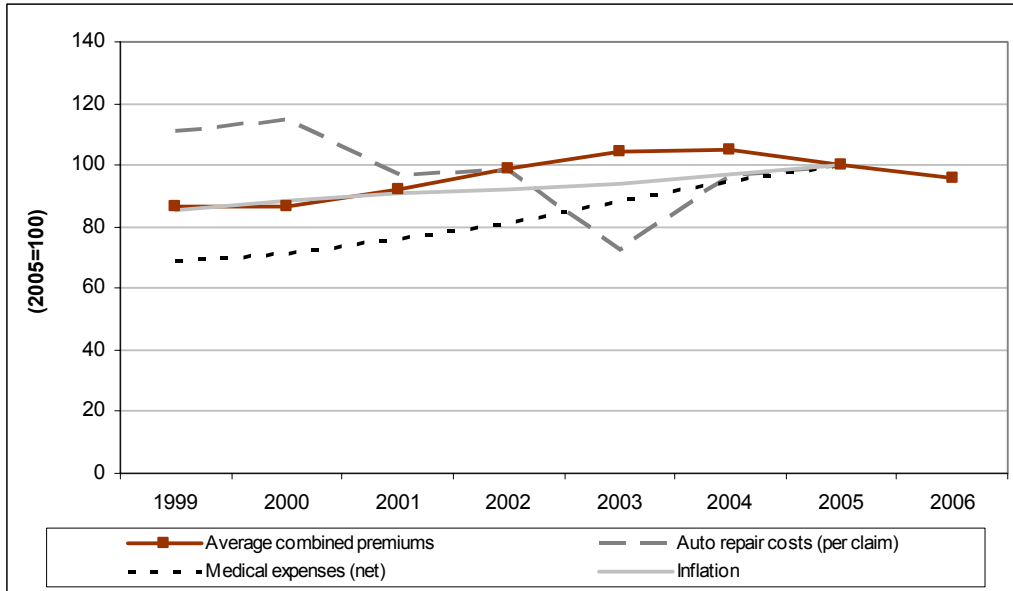
6.220 New York is the most concentrated of the Selected USA States — however, this simply means that it is on the cusp between having a moderate degree of concentration and not being concentrated. As such, the market is less concentrated than the majority of motor insurance markets in the EU. Distribution can again be characterised as being heavily geared towards independent intermediation.

Premiums

6.221 Similar to the other USA States covered in this report, the average combined motor premium has increased below the rate of increase in medical expenditure. On the other hand, auto repair costs — whilst volatile — have trended downwards.



Figure 6.70: Evolution of Motor Premiums in New York, 1999-2006

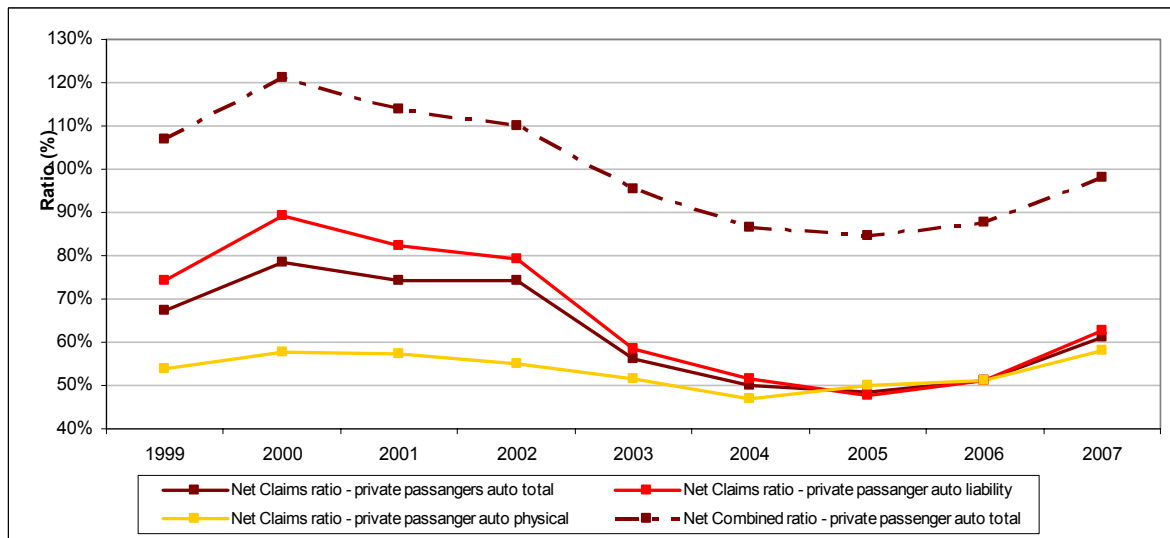


Source: NAIC

Profitability

6.222 The reduction in claim frequency has driven the net claims ratio downwards. The average claim per policy (as opposed to per claim) peaked in 2001 and had reduced by in excess of 30 per cent by 2005. However, declining premiums coupled to increasing medical costs have outweighed this effect and resulted in a reversal of this trend in 2006 and 2007. However, auto insurance remains profitable (just) in New York at the underwriting level (as it has been since 2003).

Figure 6.71: Evolution in the Claims and Combined Ratios in New York, 1999-2007



Source: NAIC, EE analysis



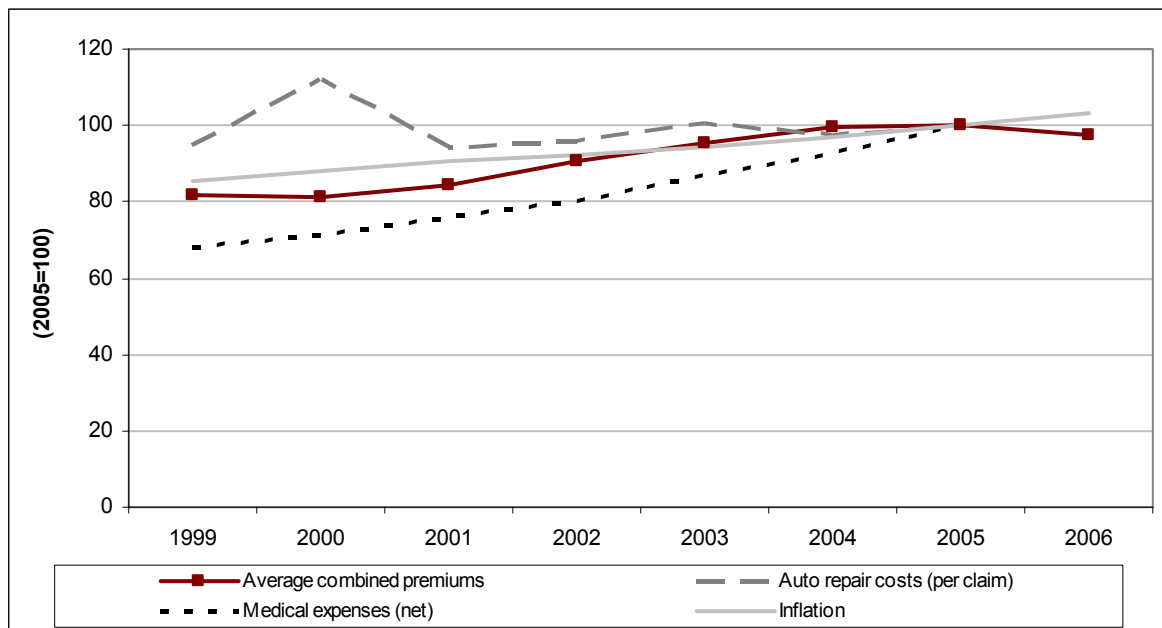
Pennsylvania

6.223 Pennsylvania one of the more concentrated of the Selected USA States — however, this simply means that it is on the cusp between having a moderate degree of concentration and not being concentrated. As such, the market is less concentrated than the majority of motor insurance markets in the EU27. Distribution is mainly through independent intermediaries.

Premiums

6.224 Between 1999 and 2005, the average premium increased by 22 per cent whereas medical expenses as reported by the NAIC increased by 46 per cent. Average auto repair costs have been relatively stable.

Figure 6.72: Evolution of Motor Premiums in Pennsylvania, 1999-2006



Source: NAIC

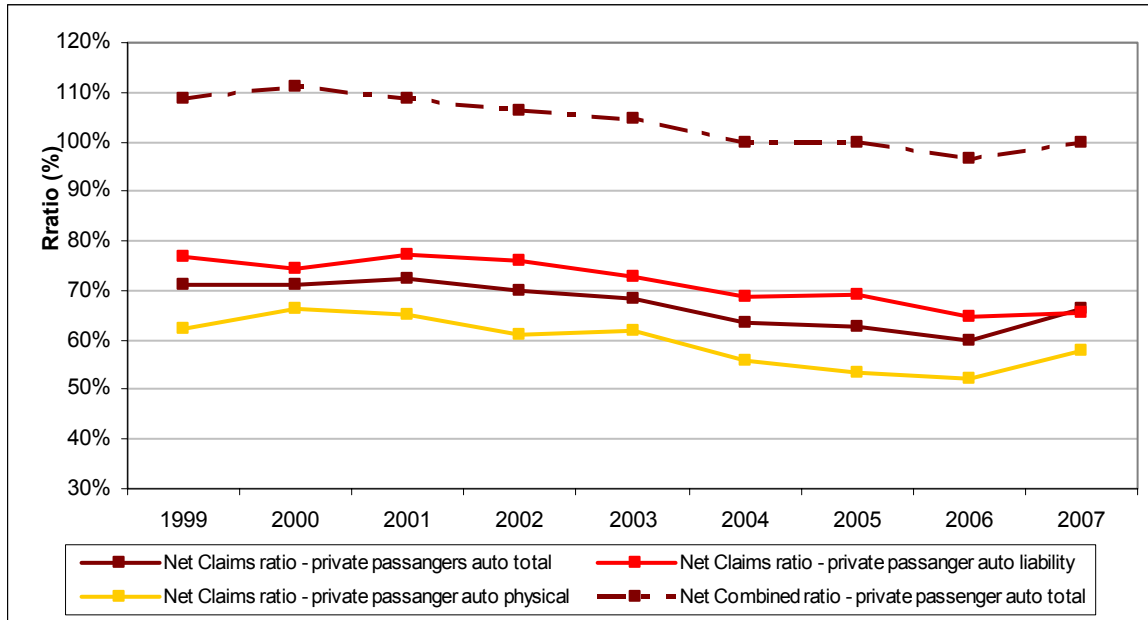
Profitability

6.225 In contrast to the other USA States — and most countries — motor fatalities have been relatively stable over the period. Car theft has trended down so that, overall, claim frequency has declined to some extent. The net effect is that the claims ratio does not show a reduction to a similar extent as the other USA States considered in this study. Deterioration in the Auto Physical product drives the upward shift in the overall claims ratio in 2007.

6.226 Auto liability has been persistently loss-making at the underwriting level so that overall auto insurance (i.e. including product variants) has moved around break-even at the underwriting level with net profitability due to investment income.



Figure 6.73: Evolution in the Claims and Combined Ratios in Pennsylvania, 1999-2007



Source: NAIC, EE analysis

Vermont

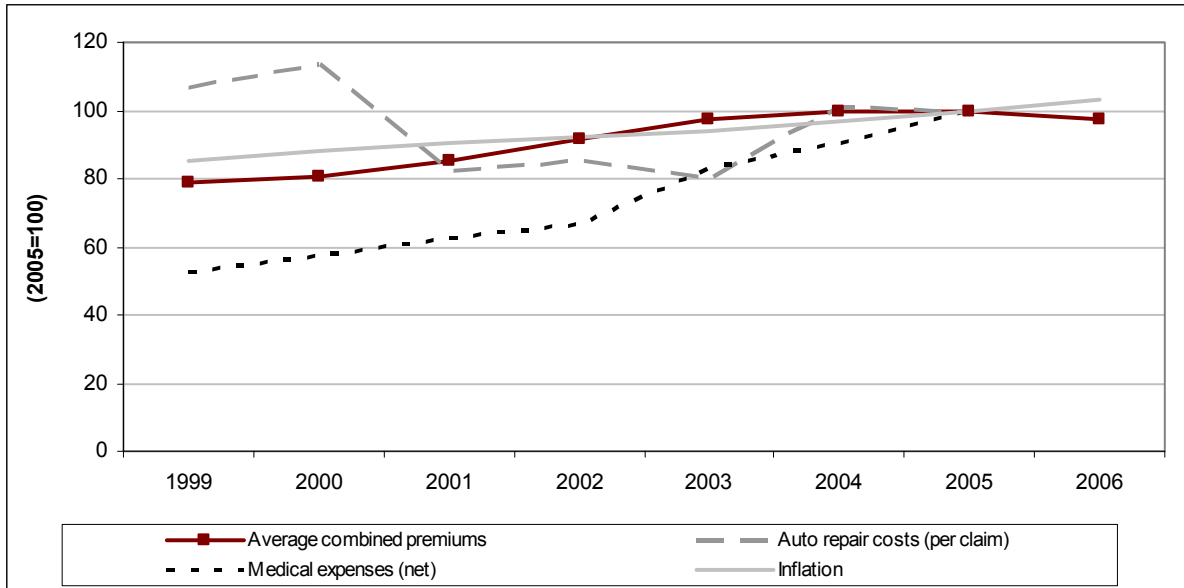
6.227 Vermont — despite its small size — is not highly concentrated (the CR5 is 46 per cent). Distribution is again mainly through independent intermediaries.

Premiums

6.228 Vermont has seen very significant growth in medical expenditure, particularly between 1999 and 2003. Average premiums have trended downwards since 2004.



Figure 6.74: Evolution of Motor Premiums in Vermont, 1999-2006



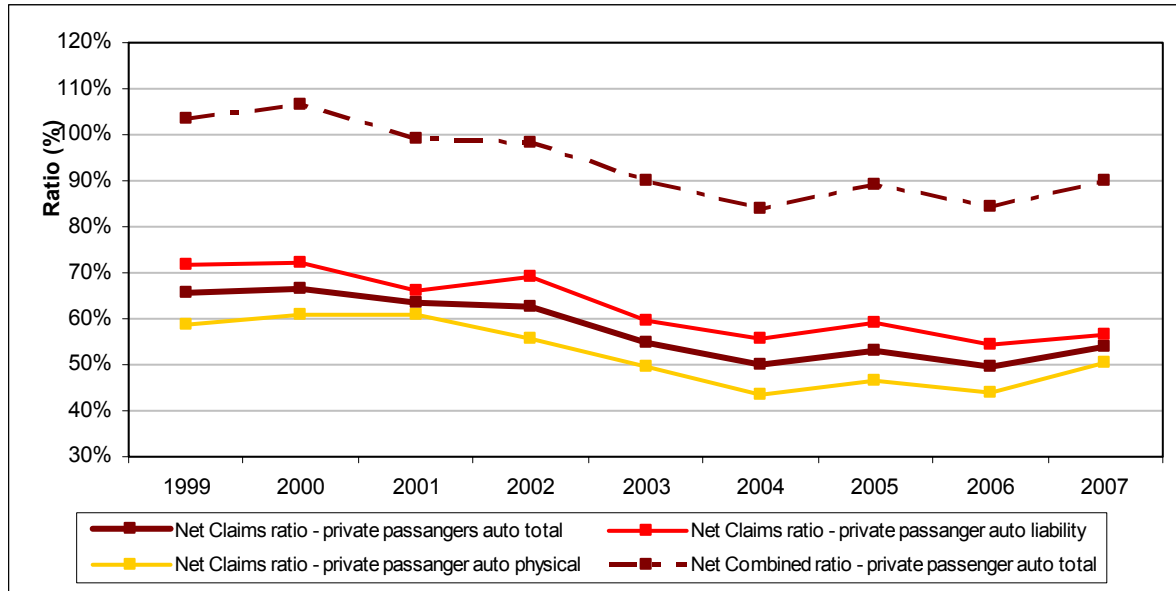
Source: NAIC

Profitability

- 6.229 The changes in the net claims ratio between 1998 and 2006 have mirrored the changes in claim frequency over the period closely (this has been driven more by the number of vehicle thefts than changing accident rates).
- 6.230 Average claim values per policy peaked in 2002, since when there has been a 16 per cent decline. Naturally, this has acted to reduce the net claims ratio so that the pressure on profitability from rising medical costs was somewhat ameliorated. The expense ratio in Vermont has been just above 35 per cent for much of the period (being 36.1 per cent in 2007) so that there was a transition through to underwriting profitability in 2002–03.



Figure 6.75: Evolution in the Claims and Combined Ratios in Vermont, 1999-2007



Source: NAIC, EE analysis

Innovation in Product Pricing

Introduction

6.231 Major innovation in insurance products has not been a significant feature of the motor insurance markets but products have evolved to provide cover for new risks and to meet changes in consumer expectations so that competition takes place both on price and on service levels. Insurers compete through providing additional services such as complimentary hire cars and claim management services. At the same time the provision of these add-ons creates an opportunity for other insurers to offer lower prices with 'no frills' packages.

6.232 Developments in marketing have provided opportunities for cost cutting. Direct selling and the use of internet price comparison sites have challenged traditional broker based networks. This has also driven additional experimentation in pricing with careful consideration given as to how product pricing varies across different distribution channels. However the extent of these developments varies between Member States with reliance on tied agency networks remaining strong in many countries (e.g. Italy and Greece).

Innovation in pricing efficiency

6.233 On the pricing of insurance products there have been developments in the ability of insurers to interrogate large databases in order to get a better understanding of how the likelihood of claims varies between policyholders. An interviewee called data management rather than data availability the key business problem (although it should be noted that this interviewee was from a large insurer).



- 6.234 This has allowed for a closer matching of premiums and risks. In motor insurance this principally allows for greater differentiation of premiums by the experience, gender (where allowed) and (self-declared) mileage of the policyholder.
- 6.235 Insurers may be using up to 25–30 variables to determine the tariff and for a given variable there may be significant variation. The level of mileage is an obvious example here — and, whilst this is self-declared when the tariff is set, many insurers will check milometers when reviewing larger claims. Similarly, an individual's claim record is taken into account (very directly where a bonus malus system still operates).
- 6.236 Insurers in markets such as Ireland, Sweden and the UK regularly incorporate an individual's credit score into the tariff calculation: this is aimed at capturing — albeit indirectly — that individual's perceived risk aversion.

Pay as you drive

- 6.237 Pay as you drive (PAYD) is a significant innovation aimed at matching pricing to actual risks taken. PAYD involves the usage of GPS technology to match pricing to mileage, time of day and type of road used.
- 6.238 PAYD was first introduced in Texas in 2000 by the Progressive Insurance Company. At that time General Motors were beginning to install the necessary telematic equipment for monitoring car use in new models and were developing their own insurance product.
- 6.239 PAYD is yet to be successfully exploited on a large scale — however Belgium, Denmark, France, Ireland, Italy, Spain and the UK — amongst others — have all seen the launch of PAYD products (or are about to). In this Section, we discuss the experience in Italy and, first, the UK.

PAYD in the UK

- 6.240 Aviva purchased the rights to the telematic system from General Motors for use in the UK and Canada. Aviva ran a trial with 1000 policy-holders people for a 2 year period. This trial proved popular and, in 2005, Aviva rolled out PAYD as a policy for young drivers. Under conventional policies the premiums for young drivers are very high (around £2000 average premium, €2200). This reflects the high accident rate for young drivers including the fact that, according to Aviva's statistics, young drivers are involved in 45 per cent of fatalities between 11pm-6am. Aviva therefore introduced a two-tier payment scheme. From 6am to 11pm the premium was 2 to 3 pence per mile (roughly 4 to 6 cents per kilometre); from 11pm to 6am the premium rose to £1 per mile (about €1.85 per kilometre). The mileage and time related charging was designed to give policyholders a greater incentive to limit their driving compared to a fixed rate annual policy.
- 6.241 This scheme led to a 30 to 50 per cent savings on premiums. Car accidents fell by 20 per cent during the trial period and by a third when the scheme was fully rolled out.



- 6.242 In October 2006, a PAYD policy was launched for 24-75 year-olds. To calculate the amount paid Aviva used details of the time of driving, the distance and what kind of road was used (motorways are safer so were priced at 1 pence per mile, whilst driving in towns was charged at 4-5 pence per mile). Premiums for those insured under the scheme fell by around a third, as did accidents. Customer loyalty increased with 90 per cent of customers renewing their policy, compared with around 40 per cent loyalty in the market as a whole.
- 6.243 However, when Aviva started to develop PAYD in 2000 it expected that new vehicles would be fitted with the technology as standard by 2010. This has not happened. Aviva has had to pay for each box and its installation. This fixed cost for each policy has made the scheme unsustainable. A greater take up of the policies would not have helped since each policy had to bear the same fixed cost. Despite the popularity of PAYD with policy holders the scheme was losing more money than motor insurance generally and, in July 2008, the scheme was cancelled.
- 6.244 Following Aviva's withdrawal from the market a new product, Coverbox, has been developed. The Coverbox tracking system is available through a number of insurers alongside their existing policies. This offers a rather simpler time of day and age related mileage rate than the Aviva policies.

PAYD in Italy

- 6.245 In Italy, Sara Assicurazioni offers "Sarafree km" and Axa offers the "Autometrica" — both of these products incorporate PAYD elements. The Sarafree km M3PL product incorporates a black box installed on the vehicle to monitor the actual mileage driven. On signature of the policy, a payment is made equivalent to 30 per cent of the premium as calculated based upon the vehicle's characteristics. Monthly payments follow based upon actual mileage. Alternatively it is possible to buy mileage "bundles" at Sara's agents. If mileage exceeds 15,000 km in a year then the policy is automatically transformed into a traditional M3PL product.
- 6.246 In the Autometrica product, cost is calculated based on mileage driven and also *when* the driver uses the car (i.e. during the morning, the afternoon or at night) and *where* (i.e. city centre, suburbs or highways).

Advantages and disadvantages of PAYD

- 6.247 A study in British Columbia highlighted some of the key benefits of PAYD. The pricing structure should lead to a reduction in annual mileage of 10 to 15 per cent with a 10 per cent reduction in emissions. Since PAYD sets the highest mileage rates for the highest risk drivers it provides a greater incentive for these drivers to reduce their mileage. As a



result there should be a similar reduction in the number of accidents with savings in lives and injury costs.⁷⁵ The data from the Aviva experience support these conclusions.

6.248 Similarly, the black box can be engineered so that it could assist in the recovery of stolen vehicles or in the provision of emergency services in the case of an accident.

6.249 However, PAYD is not without its problems:

- (a) Drivers may feel that the telematics constitutes too great an intrusion into their privacy, providing the insurer with details of their every motoring move. Some of the more limited offerings may be seen as an attempt to counter this concern (however, this may be at high costs in terms of risk management).
- (b) The time of day or age related loadings may not be appropriate for some users, for example workers who have to drive their cars at night.
- (c) The product may make most sense to those customers who are highest risk (i.e. the very young, the elderly or those with a weak driving record) — if the pricing set does not modify their behaviour, then this may prove costly to the insurer. Creating mainstream appeal for the product may be difficult.
- (d) The balance between reduced premiums and reduced accidents may be difficult for insurers to assess resulting in the potential for reduced profit on the PAYD policies.
- (e) A significant element within the savings promised by PAYD is not accessible by the insurer or the policyholder (e.g. the saving in emissions due to reduced mileage).
- (f) The installation of the telematic equipment can be a barrier to customer switching and thereby reduce competition. Indeed, a 2006 study anticipated a race to secure customers, install technology and so lock-in customers.⁷⁶ Aviva's experience of enhanced customer retention supports this. At present, there are a number of competing systems without apparent interoperability.
- (g) However the main obstacle in the way of the wide spread use of PAYD to date has been the cost to the insurer: of obtaining and fitting the telematic equipment (and potentially removing it); of developing the infrastructure to transmit and process the masses of data generated; and of creating a dedicated billing system.

6.250 A survey in the United States, conducted to try to understand why PAYD insurance has not been developed, showed similar concerns. When considering barriers to entry 46 per cent of insurance company representatives considered the cost of implementing core systems for PAYD products as the major barrier, 20 per cent believed it to be consumer

⁷⁵ Pay-As-You-Drive Pricing in British Columbia.

⁷⁶ Rapp Trans (UK) and the ABI (2006), "Motor insurance and new Technology".



privacy concerns, 18 per cent the cost of telemetry devices, 14 per cent state insurance regulations, and 4 per cent existing PAYD patent infringement.⁷⁷ Notwithstanding these concerns, PAYD insurance had been implemented in 34 states.

- 6.251 Although data on the market penetration by PAYD products are not available, it is clear that it has not become a mainstream product to date. Further developments in the take up of technology may bring down the unit cost of the telematics and improve the economics of PAYD from the insurers' perspective. Many insurers are waiting for the black boxes to be installed as standard by car manufacturers (e.g. this may be when there are a number of functions available beyond pay-per-mile insurance).
- 6.252 There may also be further developments in technology which will allow for product development. For instance, at present the telematics do not distinguish between different users of the car. Identification systems, for example retinal scanning may be introduced to provide this facility. But again the costs involved may prove to be a barrier to widespread use.

Other motor insurance innovation

- 6.253 An interesting twist is the Green Wheels product that has been developed by the insurer MORE TH>N in the UK. Here, a black box (referred to as a "green" box in MORE TH>N's marketing literature) monitors driving behaviour and generates reports upon it.⁷⁸ This reporting is under categories such as "sharp braking".
- 6.254 The objective is to reduce the carbon footprint of each driver by fostering lower speed and a more anticipatory driving style generally. As MORE TH>N make clear, this could also reduce accident rates — this may contribute significantly towards the technology cost borne by the insurer. If the product works successfully, then the driver is likely to directly benefit from reduced fuel and maintenance costs, as well as improved safety. However, the product's pricing structure is not tailored to either the individual's original or revised risk profile (i.e. policy-holders do not appear to directly access lower premiums through this service).

Best Practice Initiatives

- 6.255 In this Section we describe initiatives, both adopted and proposed, aimed at reducing the claims frequency and/or average claim value in motor insurance.

Context

- 6.256 In its 2001 White Paper on Transport policy, the European Commission set a target of reducing the number of road fatalities by 50 per cent by the year 2010. This represented

⁷⁷ Exigen Insurance Solutions Pay Only As You Drive Survey.

⁷⁸ http://www.morethan.com/Pages/Products/Car/GreenWheels_Whats.aspx



the launch of its Road Safety Action Plan (2003–2010) which set out a number of proposed measures including: stepping up checks on road traffic; deploying new road safety technologies; and improving road infrastructure and measures to improve user behaviour. Key measures of the Action Plan include:

- (a) Encouraging road users to improve their behavior — for example by encouraging the general use of crash helmets by all powered two-wheeler drivers, establishing appropriate classification and labeling of medicines which may have an effect on driving ability, and developing best practice guidelines with respect to police checks, etc.
- (b) Making use of technical progress — for example by introducing universal anchorage systems for child restraint systems, eliminating blind spots in heavy goods vehicles.
- (c) Encouraging the improvement of road infrastructure — for example by proposing a new Directive on road infrastructure safety, developing urban safety management and speed moderation, establishing best practice guidelines for level-crossings and improving safety levels in tunnels.

6.257 Many of these initiatives, once implemented would act to reduce accident frequency and/or the severity of injury in those accidents — for example by increasing seatbelt wearing rates in both the front and rear of cars through enhanced enforcement of existing road safety legislation.

6.258 We focus in this Section on those initiatives that complement this wider activity.

Initiatives primarily targeting claim frequency

6.259 Earlier in 2009, the CEA published its Road Safety Compendium outlining seven main areas in the field of road safety where the insurance industry has been particularly active.

Young drivers

6.260 The initiatives in this area are underpinned by data that young (and therefore inexperienced) drivers are statistically more likely to be involved in collisions on the road. Examples of initiatives taken in this area include:

- (a) “Priorite a vos enfants” (Give your children priority) — in 2005 the FFSA and the road association in France launched an initiative aimed at encouraging dialogue between parents and children about road safety issues.
- (b) “Neopatentati” — one of a number of road safety projects implemented by Fass (in Italy), who has also created an online driving simulator which provides young drivers with simulations of dangerous situations as a means of providing inexperienced drivers with greater opportunities to develop better road awareness in a safe environment.



- (c) “Trials, the ultimate driving test” — this is an initiative of the VvV (the Dutch insurer association). The main aim is to increase the awareness of younger drivers of the effects that their own behaviour can have on traffic and on their own safety. During a ‘trials day’ young drivers are expected to share their experiences, drive their car with an instructor and to take on feedback about their driving skills and so on.

6.261 Other initiatives in this area include those that provide extra training for young drivers, focusing on driving defensively. This is carried out for example, by several insurance companies in Belgium in cooperation with local authorities.

Elderly drivers

6.262 The activities in this area outlined in the CEA’s report tend to focus more on research projects, lobbying and developing voluntary initiatives:

- (a) There have been a number of research projects undertaken in Germany by the accident and research unit of the German insurance association (GDV). The aim has been to raise awareness of the requirement of elderly people so that these can be better taken account of in infrastructure planning. The GDV is advocating that considering such road safety requirements should be a compulsory aspect of the traffic planning process. The ongoing transposition of Directive 2008/96/EC, aimed at the improvement of road infrastructure safety management systems, should in large part achieve this.
- (b) A number of French insurers have developed voluntary refresher courses for elderly drivers. In a similar vein, they have also created and distributed brochures to doctors as a way of encouraging them to engage in dialogue with elderly people about road safety issues.
- (c) In the UK, the ABI has been lobbying for a more effective medical licensing framework not only to ensure that those who do not meet the necessary medical standards (e.g. due to deteriorating eyesight) are prevented from driving but also to provide support to elderly motorists where appropriate.

Alcohol and drugs

6.263 Alcohol and drugs are a common factor in road accidents. Amongst the most popular and effective measures supported by the insurance industry in a number of Member States (e.g. France, Cyprus, Italy, Belgium and Austria) are campaigns promoting the use of designated drivers.

6.264 Research cited by the CEA shows that in Belgium and France over 70 per cent of people (at least) say that they often arrange a designated driver before a party. The terms “Capitaine de Soiree” (France) and “Bob” (Belgium) are well known and used as a colloquialism for a designated driver. Similarly, insurers have been involved in a number of media campaigns, such as “Did you drink? Don’t drive” in Poland.



6.265 In Finland, a new law allows drink-driving offenders to be given conditional as opposed to unconditional driving bans. The conditional ban provides offenders the opportunity to continue to drive subject to their car being fitted with an “alco-lock” (i.e. an alcohol ignition interlock) and that alcohol abuse counselling is sought. France adopted a similar approach in 2008.

Powered two-wheelers

6.266 Initiatives here have centred mainly on education and media campaigns. Examples include the following:

- (a) “Patentino online” — in 2004 the Italian insurance association’s road safety unit (Fass) began an online driving licence project to provide a platform for teenagers to pass the driving test required for mopeds.
- (b) “Le detail qui tue” — this was a media campaign by the FFSA (France) in 2007 involving placing prevention messages in local newspapers. It also included the establishment of a website which providing information to parents about the potential dangers with mopeds in general.
- (c) “German safety tour” — this was a campaign by the UDV to promote the practical training of powered two-wheelers in real traffic situations.

Driving for work

6.267 The CEA states that the majority of road accidents occur when driving for, or to and from, work. In Italy a number of training courses have been provided to companies by Fass, which cover traffic, rules, driving hours, etc. The UK Department for Trade and Industry (DTI) has developed a number of educational programs aimed at improving driving for work. Two of the DTI specific initiatives include:

- (a) The “Think” advertising campaign (launched in 2000). This aim of this particular campaign is to reduce the number of road deaths and injuries by 40 per cent and for children by 50 per cent by 2010 (compared with average figures that prevailed during 1994-98); and
- (b) The “Driving for Better Business” pilot launched in 2007.

6.268 A more indirect measure taken in the UK that has been seen to have had a positive impact on attitudes towards driving in the workplace (in particular by clarifying the responsibility — and potentially liability — that employers have for work-related accidents) is the Corporate Manslaughter Act 2008.

6.269 Another example of an incentive based initiative to reduce the prevalence of risky driving behaviour is the penalty points system in Denmark which is applied to dangerous violations of the Traffic Regulation. A change in the law was introduced in 2005 which meant that in addition to having a fine imposed, a driver would also have a penalty point



added to their licence. If a driver receives three penalty points within three years, their licence will be conditionally suspended. This prompted an improvement in accident incidence rates — however, this improvement is not being fully sustained in Denmark. An implication is that securing behavioural change may need regular prompting.

- 6.270 The Verband der Versicherungsunternehmen Österreichs (VVO, the Austrian Association of Insurers) has carried out research which suggests that installing crash recorders (i.e. Events Data Recorders) could assist in lowering both the number and the severity of accidents. The idea is that allowing the behaviour of drivers (in terms of crash damage) to be observed provides drivers with an incentive to avoid damage and therefore encourage more careful driving. Further, it was found that this effect may be enhanced where the driver is not the actual owner of the vehicle and even more so where the owner is also the employer of the driver.

New technologies

- 6.271 More generally than the VVO's initiative on work-related accidents, insurers have also been actively involved in promoting the use of new technology where there is sufficient evidence to prove that it has an appreciable effect on reducing both the number and the severity of road accidents. Telemetric-based insurance policies for example, involves the use of a technology that enables insurers to link the price of car insurance not only with the length the car is driven but also to what time of the day it is driven.
- 6.272 One example here is PAYD. We have described PAYD approaches more fully above — a key point in this context is that the implementation of PAYD differs from firm to firm. In some instances, the pricing varies largely according to the time of day (e.g. charging a premium for night-time driving) and location (e.g. charging a premium for driving in an urban setting). However, some systems monitor driving behaviour much more closely so that sharp braking and acceleration can be penalised. Cost and driver acceptance (for example, due to concerns over privacy) are important considerations.
- 6.273 In Germany, studies by the GDV have shown that Electronic Stability Control (ESC) can positively influence the outcome of 25 per cent of all car accidents with personal injuries and between 35 and 40 per cent of those involving fatalities. The GDV is lobbying for compulsory adoption of ESC on all cars. ESC is one of the technologies falling within the Intelligent Car Initiative — in 2005, 40 per cent of new cars incorporated this technology.⁷⁹

Infrastructure

- 6.274 The “Black Point” project set up by the Italian insurers' road safety unit, Fass, aims to increase driver awareness of the ways in which road conditions as well as their own behaviour can increase the risk of road accidents.

⁷⁹ http://ec.europa.eu/information_society/activities/intelligentcar/technologies/tech_09/index_en.htm, accessed 24 September 2009.



Initiatives primarily targeting average claim value

Rehabilitation programmes

- 6.275 In Finland, the injured party is required to undertake a rehabilitation assessment. The Insurance Rehabilitation Association (Vakuutuskuntoutus, VKK) is a joint service organization for insurance companies specialising in accident, motor liability and earnings-related pension insurance. The main work of this association is in developing rehabilitation services in cooperation with the Finnish authorities, service providers and client associations. The association also promotes research, training and the dissemination of information about rehabilitation.
- 6.276 In theory, ensuring that policyholders in need of rehabilitation services, not only receive them, but do so in a timely manner, can serve to lower the long terms costs to the insurer (and the policy holders) associated with protracted health care requirements, etc. The VKK contends that its experience to date is that early rehabilitation results in improved work prospects and is very cost effective (in 2007 a typical rehabilitation course cost €16,000 against a disability pension of €12,000 per annum). A past study on a group of 49 people treated by the VKK indicated an average direct cost of €11,000 against an average saving of €130,000.
- 6.277 The applicability of the Finnish approach elsewhere may be restricted if the determination of fault is required first — since this may be a difficult and time consuming process.

Claims settlement

- 6.278 Ireland responded to mounting concern over inflation in claims values and the time taken to achieve a settlement by establishing in 2003 the InjuriesBoard.ie (formerly known as the Personal Injuries Assessment Board).
- 6.279 InjuriesBoard.ie, an independent government body, assesses the amount of compensation due to a person who has suffered a personal injury where liability is not in dispute (Ireland operates a fault-based regime). It determines the level of compensation to policyholders without the latter incurring legal costs and expert fees (which in general can be very costly).
- 6.280 Indeed, according to the Motor Insurance Advisory Board (MIAB), prior to the establishment of InjuriesBoard.ie, the cost of delivering compensation through litigation accounted for approximately 46 per cent of the total award value in such cases.



6.281 Statistics from 2008 show that the average saving per accepted award versus litigation was €8,900. The total savings on accepted awards were claimed to be €50 million (in the context of total claims incurred on private motor insurance of €840 million).⁸⁰

Recovery of Stolen Vehicles

6.282 If a stolen vehicle is successfully recovered then there will be some value (even if only scrap value) to set against what would otherwise be a total loss. In 2006, vehicles stolen totalled approximately 1.2 million; a significant proportion of these are not recovered.

6.283 Signatories to the International Convention for the Recovery of Stolen Vehicles (ICRV) include Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Poland, Slovenia, Spain, Sweden and the UK.⁸¹

6.284 The ICRV encourages the mutual exchange of information regarding stolen, seized and “written-off” vehicles crime, on a non-profit basis. Central coordination of the ICRV is the responsibility of the CEA.

6.285 The technology required for PAYD policies allows for the easy tracking of stolen vehicles.

Reduction in uninsured drivers

6.286 There is an estimated large pool of uninsured drivers across the EU (estimates do, however, tend to vary within and between countries) that also plays a part in increasing the cost of motor insurance (for policy holders and the insurers themselves). In the UK it is estimated that at least 4 per cent of drivers are uninsured. In contrast, in Denmark and Germany the figure is estimated at less than 0.1 per cent.⁸²

6.287 Uninsured drivers are generally believed to cause more accidents than insured drivers (thereby contributing to claims frequency). In the event of a crash where uninsured drivers are involved, the insured party is normally covered by a ‘guarantee fund’ funded by insurers (and indirectly by the insured drivers). In the UK for example, it has been estimated that costs associated with uninsured drivers increases the average yearly motor premium by approximately £30 (approximately €33).⁸³ In the USA, in the event of a crash caused by an uninsured driver, paying for vehicle repairs and a replacement rental car can end up being the responsibility of the victim. It is for this reason therefore that many drivers in the USA include uninsured motorist coverage which provides against the cost of injury and damages caused by uninsured or hit-and-run drivers. Such cover is in

⁸⁰ IIF, Annual Report 2008.

⁸¹ Source: http://www.zav-zdrufenje.si/docs/15_dnevi/Harry%20Filon-%20slovenia%202008.ppt#259,16, Slide 16. Accessed 25 September 2009.

⁸² DG MARKET/2508/06 (March 2006).

⁸³ UK Motor Insurance Bureau, 2009.



fact compulsory in most of the Selected USA States (uninsured drivers represented between 4 and 11 per cent of all drivers in those States).⁸⁴

- 6.288 A variety of approaches are being adopted across the EU in order to reduce the prevalence of uninsured driving.
- 6.289 In the United Kingdom, the fixed penalty for driving uninsured is £200 (€222) plus six penalty points. However the courts can impose fines of up to £5,000 (€5,550), automatic endorsement of an offender's licence with 6-8 penalty points and even the possible physical destruction of the offender's vehicle. A new initiative will allow the Driver and Vehicle Licensing Agency (DVLA) to electronically check if an insurance policy has lapsed and if no action is taken by the motorist after around a month the DVLA will then issue a fixed penalty notice imposing a fine. If the fine is ignored (the case in around one third of on-the-spot penalties) stronger steps can be taken including taking the offender to court, where conviction could lead to a maximum fine above £1,000 (€1,110) and a criminal record.⁸⁵ The Motor Insurers Database was set up by insurance companies and holds the details of all vehicles and drivers insured in the UK. The UK police have instant electronic access and make an estimated 3.8 million enquiries a month.
- 6.290 In the Czech Republic, the fine for an uninsured car is €60 per day that the car has been uninsured, subject to a maximum amount of €1600 can be charged. The money is directly paid to the Czech Guarantee Fund. The Slovak Republic has adopted a similar approach and a fine between €166 and €3,300 can be assessed for driving without a valid motor insurance depending on the period without insurance. In Poland, there has been a switch from a policy of car seizure to one of penalties: the penalty is dependent on time period without insurance.
- 6.291 In France, the penalty for lack of motor insurance can be extremely high (up to €45,000) and can lead to a possible revocation of a driver's licence. In France, the Bureau Central de Tarification (the Central Bureau of Pricing) provides help to decide under what conditions an insurance company must provide help to those who have been denied insurance. Evidence of denial from at least two insurance companies is mandatory.
- 6.292 In Belgium, the approach is similar: the Motor Rating Bureau (operational since 2003) provides cover to those drivers who are difficult to insure. Evidence of three refusals is required and the costs are divided between the whole motor insurance sector.
- 6.293 In Spain, the Consorcio de Compensación de Seguros (the Insurance Compensation Consortium) will indemnify damages in the event of losses caused by unknown vehicles, those that are uninsured and those that have been stolen; or in cases where the insurance entity has been declared bankrupt, in administration, insolvent, is in a process

⁸⁴ Insurance Research Council, 2007.

⁸⁵ See UK Department for Transport. <http://www.dft.gov.uk/pgr/roads/infringements/>



of liquidation in which the Public Administration intervenes, or when the company has been taken over by the Consorcio itself.

- 6.294 In Italy, penalties can include the confiscation of driving licence and registration documents as well as significant fines which can include up to 25 per cent of the fine needing to be paid on-the-spot.
- 6.295 An alternative approach, of course, is to prevent the problem in the first place: in Denmark vehicle registration, the issuing of licence plates and the taxation of new cars is linked directly to M3PL insurance.

Reduction in insurance fraud

- 6.296 Insurance fraud weighs upon both claim frequency and average claim value. The UK's Insurance Fraud Bureau (IFB) estimates that organised motor fraud exposes the UK Insurance Industry to risk of loss of £300 million per annum (about €330 million). Of this, up to £160 million (about €177 million) relates to "induced" accidents (where, say, the criminal will drive in front of an innocent third party and apply the brakes).⁸⁶
- 6.297 The IFB believes that the average staged motor accident claim costs an insurer €16,000, rising to €20,000 per incident for induced accidents. Public safety may suffer if fraud controls are inadequate (e.g. vehicle safety after repair, proper disposal of salvage).
- 6.298 There are a number of factors that facilitate organised motor fraud in the UK in particular:
- (a) "No win no fee" representatives;
 - (b) Claims management companies;
 - (c) Ease of identity fraud; and
 - (d) Historic lack of sanction against fraudsters.

Built-in incentives

- 6.299 We have noted above that the models driving the setting of tariffs are capturing more variables than previously. Therefore as new technologies and ideas emerge it may be that the premium setting approach will actively encourage the implementation of measures that could pro-actively act to reduce the frequency or severity of claims. For example, a lower tariff may be accessible for those vehicles fitted with a vehicle tracking device. This was a question posed by insurers in some countries — such as Italy and the UK — in our mystery shopping.

⁸⁶ Comments made during presentation at CEA Annual Motor Insurance Conference, 2009.



- 6.300 It may be that these questions served an alternative purpose — for instance, to assess the relative risk aversion of the potential policyholder; in which case the insurer's anticipated saving might be retained by the insurer. However, reductions in claim frequency and claim value directly influence the profitability of insurers and in a competitive market some of these savings will be shared with policyholders.



7 THE EVOLUTION OF PREMIUMS AND PROFITABILITY IN HOME INSURANCE

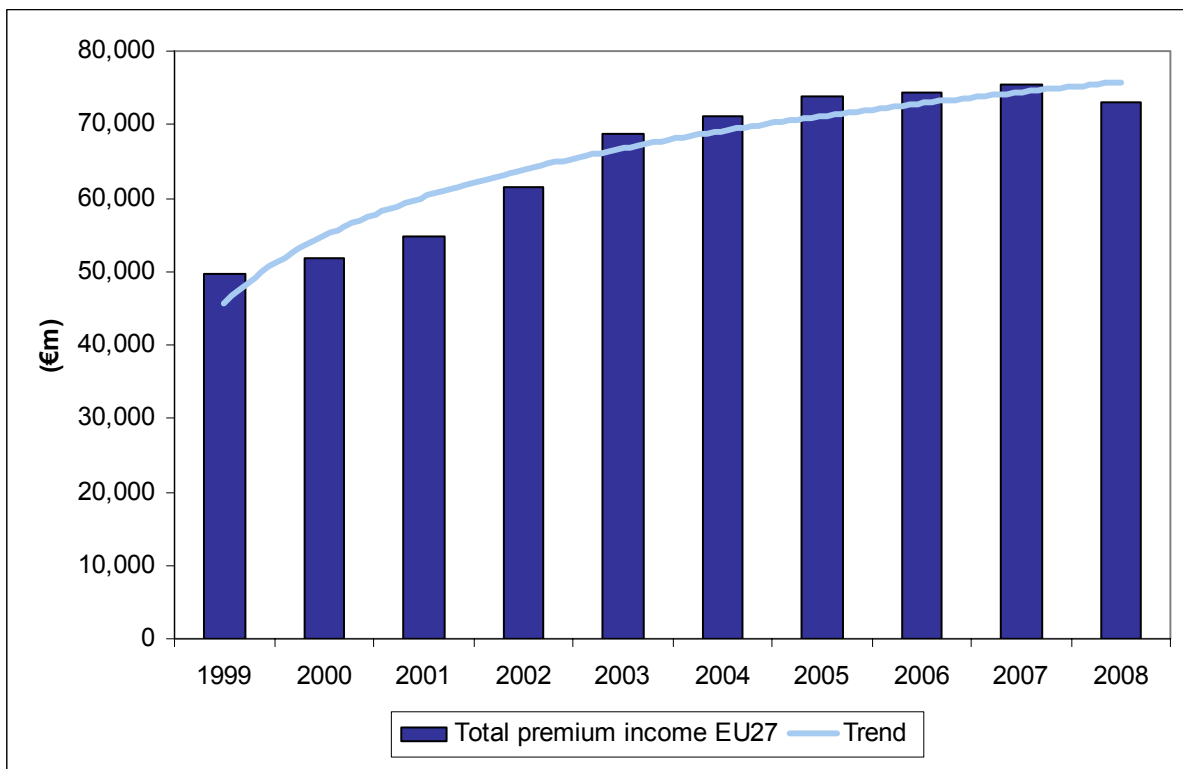
Introduction

7.1 In this Section we describe the drivers of premiums and profitability in property insurance. We conduct this analysis on a country by country basis (State by State in the USA). However, first we provide a brief overview of the market.

Market Overview

7.2 The evolution of aggregate premiums in the EU27 is described below.

Figure 7.1: Total Premiums in the EU27, 1999-2008



Source: CEA, EE analysis

7.3 Similar to the experience in motor insurance, the last few years have not seen any growth in real terms in the size of the market, which stood at just over €74 billion in 2008. The earlier period of growth was driven largely by increasing penetration of insurance in the CEE Member States and significant market growth (in absolute terms) in the UK, Ireland, Sweden and Spain. Indeed, the UK accounted for 25 per cent of the change in total premiums in the EU in the period 1999–2008.

7.4 As a general rule, the fastest growth was focused in the CEE Member States, Malta and Cyprus. Indeed, looking at those ten markets recording the fastest rate of growth



between 1999 and 2008, the only exceptions to this general rule were the markets in Greece and Spain.

- 7.5 As is apparent from Figure 7.1, aggregate premiums reversed in 2008. This was driven by events in the UK, Spanish, Swedish and Greek markets. There is a certain symmetry here to the markets that have had grown the most in the previous years.
- 7.6 As we have noted previously, the data available on property insurance in the EU are only uniformly available on a basis that includes commercial and industrial property insurance as well. Figure 7.1 reflects the total value of property insurance. The value of home and household insurance is, however, separately available for all of the largest markets in the EU, except Italy (i.e. it is available for France, Germany, Spain and the UK), as well as a number of smaller markets (such as Austria, the Netherlands, and others). Based upon this sub-set of countries where this separation is available, approximately 60 per cent of property insurance relates to home and household cover. If this is applied to the whole of the EU, the implied total market for domestic property insurance is approximately €45 billion. In the Selected USA States, a similar situation holds: homeowner multi-peril insurance represents on average just over 58 per cent of the total multi-peril property insurance.
- 7.7 Where in this study we focus on a specific country, we have used home insurance data where available and have stated that in those instances. However, when comparing across the whole EU we have used property data (i.e. including non-domestic insurance) to ensure comparability. It should be recognised that commercial and industrial property have fundamentally different characteristics to home insurance — the number of policies is much smaller, the value of an individual policy potentially much greater. In addition, insurance against business interruption is an important element without a true comparator in home insurance. However, even if the result is a more volatile performance it will be (for most countries) significantly outweighed by the performance in the retail sector. In general, we do not judge the loss of fidelity to be significant.⁸⁷

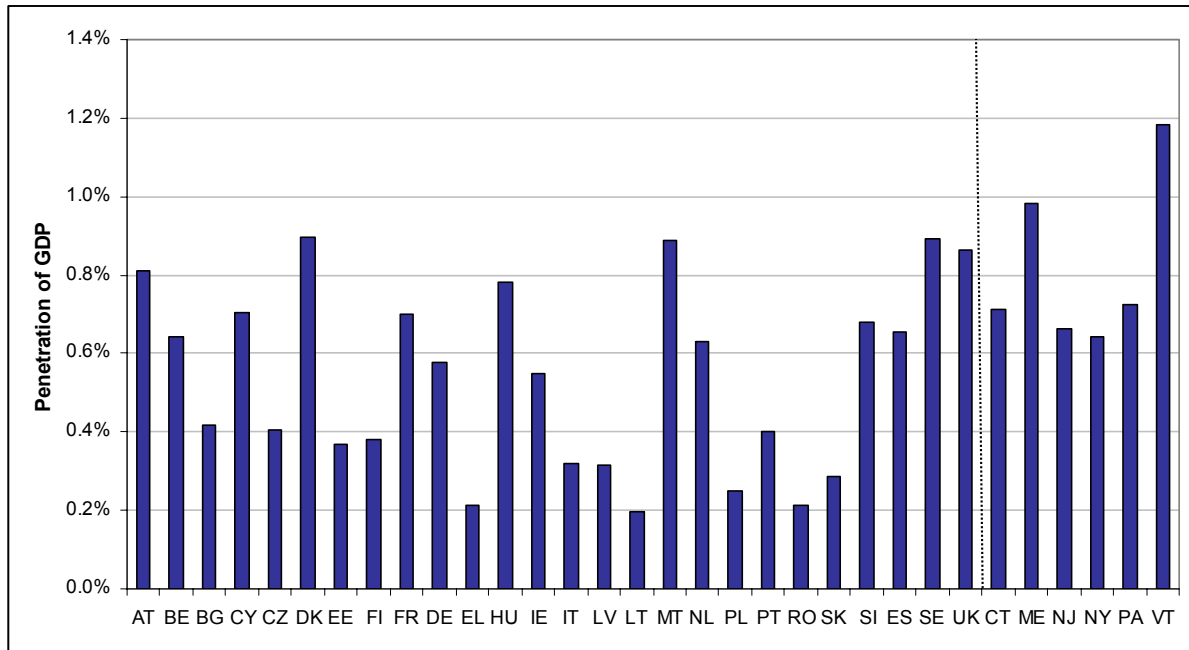
The Relative Importance of Property Insurance

- 7.8 Figure 7.2 below describes the relative penetration of property insurance across the different countries of the EU and, for comparison, the Selected USA States.

⁸⁷ On the other hand, it follows that using the aggregate data to proxy for the performance of the commercial and industrial segment alone would be troublesome.



Figure 7.2: Penetration of Property Insurance as a Percentage of GDP, 2007



Source: CEA, NAIC, EE analysis

7.9 Property insurance tends to have a lower penetration in the CEE Member States (although Hungary and Slovenia represent exceptions). As with motor insurance, the penetration in the Selected USA States is markedly less heterogeneous than between the countries of the EU.

Market Structure

7.10 We have discussed market structure in terms of the insurance companies at some length in Section 2, and we do not repeat our analysis in here. As we have noted in the previous section, in retail insurance distribution is frequently separate from “manufacture”.

7.11 The make-up of distribution in home and property insurance is very similar to that which holds in motor insurance, with identifiable differences apparent in less than half a dozen countries. We summarise the position below.



Table 7.1: Distribution Models in the EU

	Source(s)	Direct	Intermediaries: agents (tied and multiple)	Intermediaries: Brokers	Other (bancassurance, post office, etc)
Austria	CEA / BIPAR	40%	15%	35%	10%
Belgium	CEA / BIPAR / Interview	20%	10%	60%	10%
Bulgaria	FSC / CEA	35%	30%	35%	na
Cyprus	Stakeholder interview	50%	40%	10%	na
Czech Republic	na	na	na	na	na
Denmark	BIPAR	40%	na	15%	45%
Estonia	BIPAR	30%	10%	50%	10%
Finland	BIPAR / Interview	70%	10%	15%	5%
France	CEA	35%	35%	18%	12%
Germany	BIPAR / Interview	5%	40-45%	25-30%	25%
Greece	BIPAR	0%	70%	18%	12%
Hungary	Stakeholder interview	13%	67%	10%	10%
Ireland	BIPAR	25%	5%	70%	na
Italy	CEA	5%	85%	10%	na
Latvia	Stakeholder interview	25-30%	40-50%	20%	10%
Lithuania	BIPAR	na	na	33%	67%
Luxembourg	CEA / BIPAR / Interview	8-18%	80-90%	2%	na
Malta	MFSA / BIPAR	40%	28%	32%	na
Netherlands	BIPAR / CEA	35%	10%	55%	na
Poland	CEA / BIPAR	25%	55%	15%	5%
Portugal	CEA / BIPAR	10%	60%	17%	13%
Romania	na	na	na	na	na
Slovakia	CEA / BIPAR	8%	40%	50%	2%
Slovenia	CEA / Interview	5%	90%	5%	na
Spain	CEA / BIPAR / Interview	15%	45%	25%	15%
Sweden	BIPAR / Interview	10%	40%	5%	45%
United Kingdom	Interview / ABI	17%	5%	36%	42%

Key: VVV is Verbond van Verzekeraars; MFSA is Malta Financial Services Authority; ABI is Association of British Insurers; FSC is Financial Supervision Commission; BIPAR is La Fédération européenne des intermédiaires d'assurances (the European Federation of Insurance Intermediaries).

7.12 The majority of the points made at 6.18 and 6.19 continue to hold: however, direct distribution matters relatively less in the UK in home insurance (relationships with banks and affinity partners are, on the other hand, much more significant; in Bulgaria and Malta, conversely, the direct channel is more significant (at the expense of tied agencies).

The Drivers of Premiums and the Evolution of Profitability

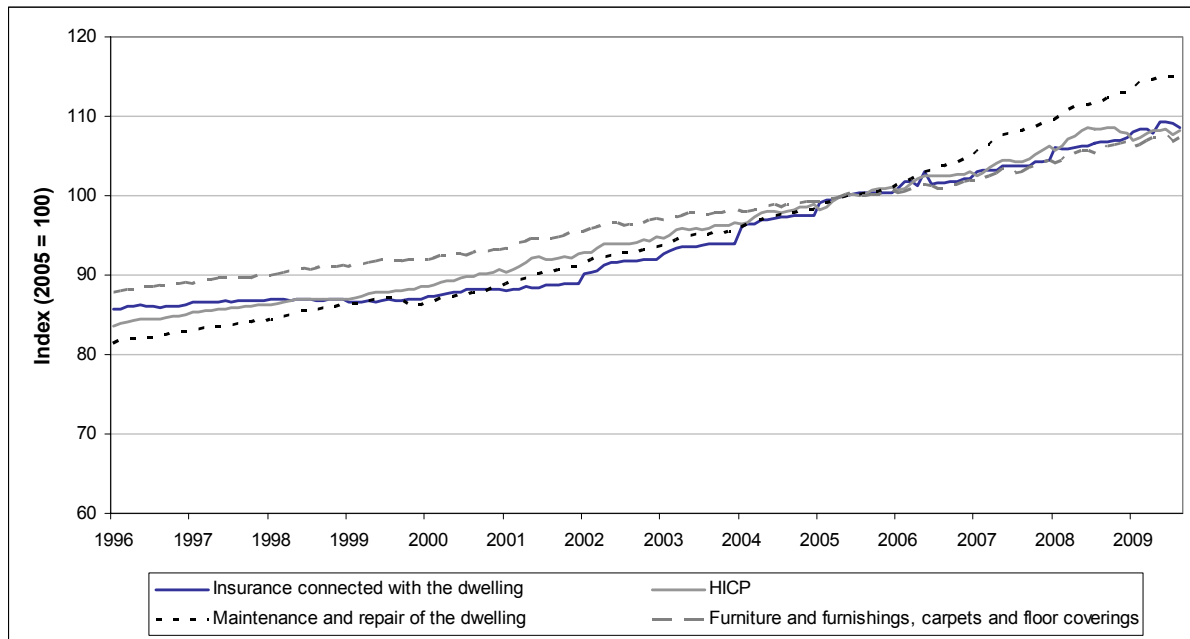
7.13 The key drivers of cost in the insurance industry are claim frequency and average claim value. In home insurance claim frequency is driven by a mix of factors: meteorology (both the normal weather and natural catastrophes⁸⁸); fire; burglary (for contents insurance); and subsidence. Of these, it is weather-driven events that drive much of the volatility in the claims ratio and hence profitability. In Europe, these are typically winter and wind storms. The other factors are generally either stable or subject to secular trends that an insurer can, at least in theory, anticipate and pricing anticipated changes into products.

⁸⁸ Natural catastrophes can, of course, also arise from non-meteorological causes (e.g. earthquakes). Some of the damage linked to the weather can be somewhat indirect — subsidence is, for instance, causally linked with very dry weather.



7.14 The value of claims is related to the cost of restitution: the key drivers are the cost of building repair (and, in extreme cases, the cost of re-building) and of making good the items within the home.

Figure 7.3: Evolution of the Property insurance and Related Indices in the EU27, 1999-2009



Source: Eurostat

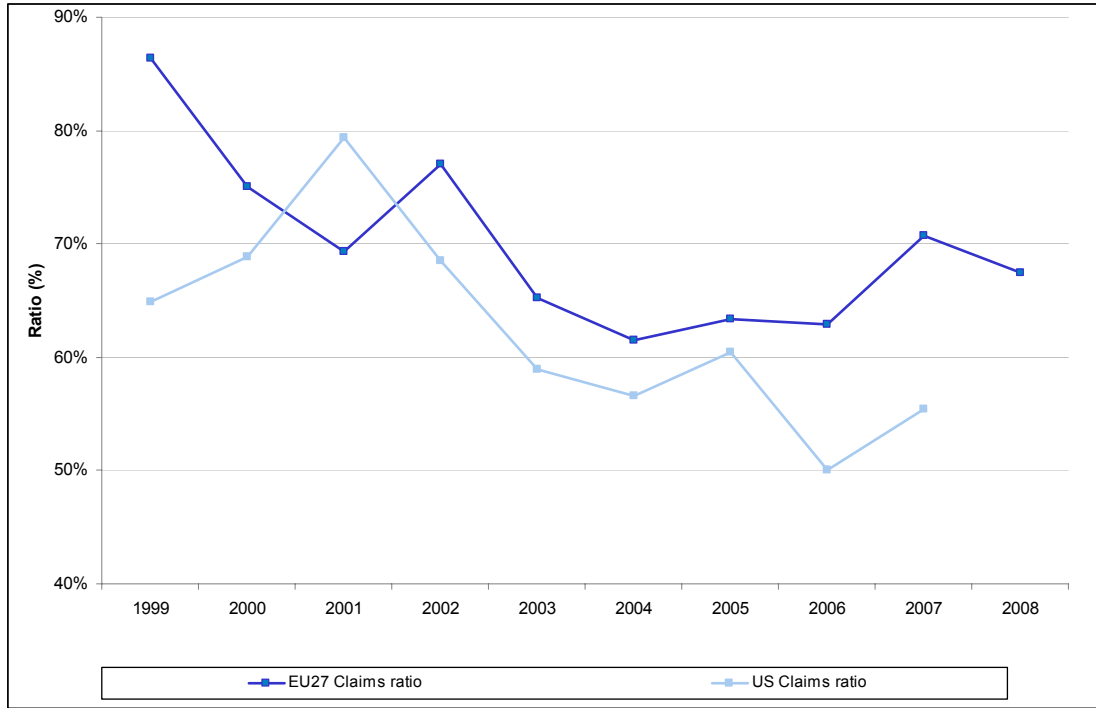
7.15 Figure 7.3 above describes the evolution in various component indices within the HICP:

- (a) “Insurance connected with the dwelling” relates to changes in the home insurance premium to insure the average home included within the HICP. This is for a combination of both structural damage and also contents cover. Adjustments are made to ensure consistency over time. The calculation is on the basis of an individual who has not made recent claims. This provides an excellent proxy for average home insurance premiums.
- (b) “Maintenance and repair of the dwelling”.
- (c) “Furniture and furnishings, carpets and floor coverings” is included to reflect the cost of restoring some of the most valuable items within the home.
- (d) The HICP itself is also included, both as a reference point and because the contents of a home are broader than furniture and furnishings.

7.16 It is clear from the above that these indices are strongly correlated and that, over the period as a whole, there has been little change in the real cost of home insurance. The relative movements in these price indices inform us about the strength of pressure being exerted on the insurance industry’s profitability. Our analysis of profitability uses the same ratios as those that we have used in our section describing motor insurance.



Figure 7.4: Evolution of the Claims Ratio in Property Insurance in the EU and the USA, 1999-2008



Source: National supervisors, CEA, NAIC, EE analysis

7.17 In 2007 the combined ratio in the EU27 for property insurance was just above 100 per cent (driven significantly by severe meteorological events such as Winter Storm Kyrill) and this ratio dropped below 100 per cent in 2008. In the previous three years the combined ratio had moved in the range of 89 to 95 per cent. This is somewhat above the experience in the USA (i.e. the European business is less profitable).

EU27 — Country by Country

Austria

7.18 On the HHI measure, Austria's the property insurance market is on the cusp between being moderately concentrated and not being concentrated. In terms of distribution, the data available to us indicate relatively high shares for direct distribution and independent intermediaries (however, we caveat this by noting that these data relate to non-life insurance as a whole. It may be that these channels are less important in retail lines than say in commercial insurance — where greater customisation provides a greater role for example for intermediaries).

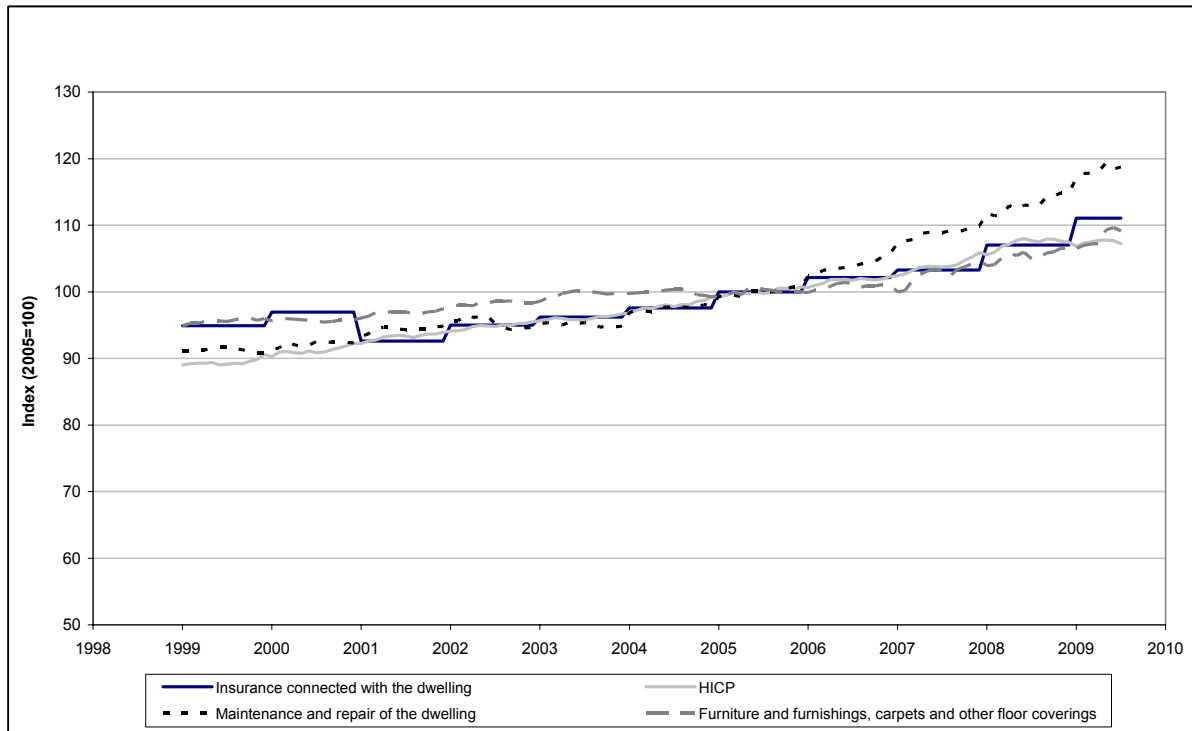
Premiums

7.19 The price of home insurance on an average domestic property in Austria has moved broadly in line with overall inflation since 2001, after a period of apparent depreciation in real terms. Since 2006, the inflation in home insurance has dropped behind that in the



cost of home repair. Absent a countervailing trend in claim frequency, this will increase pressure on the claims ratio.

Figure 7.5: Evolution of the Domestic Insurance and Related Indices in Austria, 1999–2009



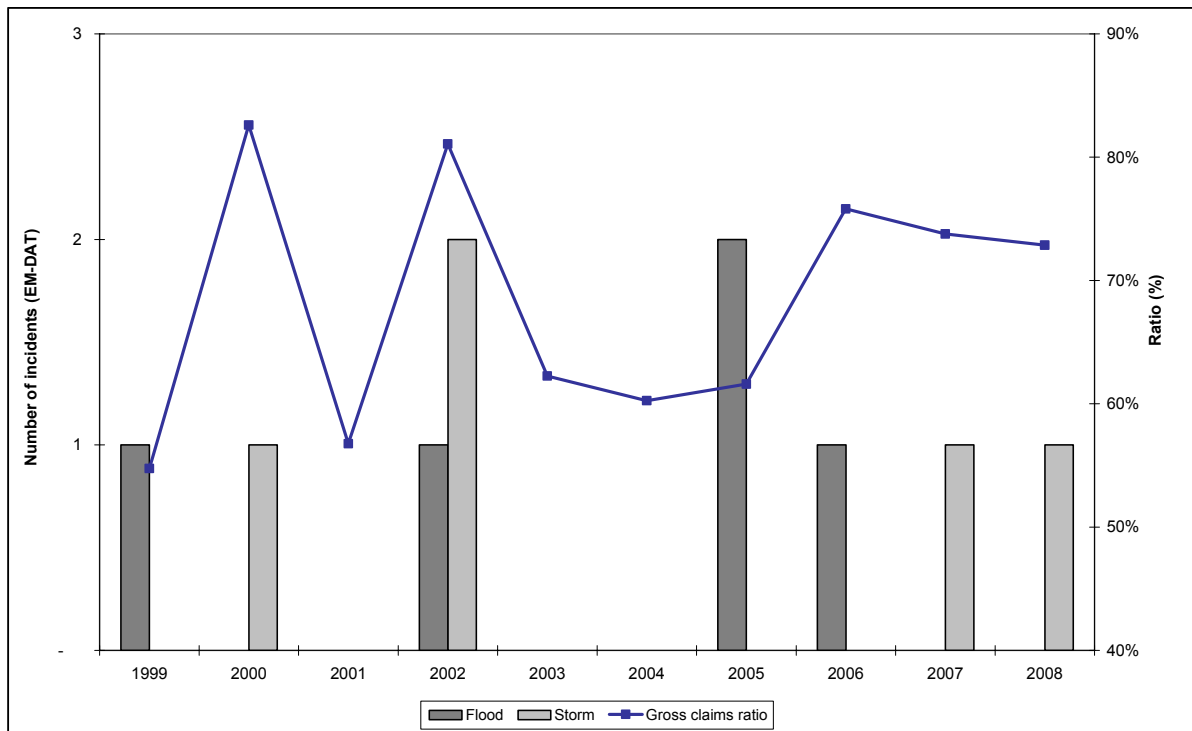
Source: Eurostat



Profitability

7.20 Austria has a number of discrete products that the Austrian supervisor aggregates premiums and claims data for. These include fire (excluding industrial fires), householder, water damage, storm, hail, glass breakage and burglary covers (the latter three are relatively insignificant). The gross claims ratio presented here represents a weighted average of these.

Figure 7.6: Evolution of the Claims Ratio in Austria, 1999–2008



Source: Finanzmarktaufsichtsbehörde, EM-DAT,⁸⁹ EE analysis

7.21 A significant driver of the volatility in the claims ratio is the incidence of meteorological damage — particularly, in Austria, that relating to wind and storm damage (2000, 2002, 2006–08). In each of these years, the claims ratio for the storm-related products is comfortably in excess of 100 per cent. The penetration of storm cover has been estimated at over 75 per cent, with flood cover at between 10 and 25 per cent.⁹⁰ In this context, the magnitude of the spike in the claims ratio in 2006 is perhaps surprising.

⁸⁹ The Emergency Management Database (EM-DAT) is maintained by and is the copyright of the WHO Collaborating Centre for Research on the Epidemiology of Disasters (CRED).

⁹⁰ CEA (2007), “Reducing the social and economic impact of climate change and natural catastrophes”.



However, Austria was severely affected by snow (in February) and hail (in June) in that year.⁹¹

- 7.22 The burglary cover (which is separately disclosed in Austria) shows a significant spike in 2004 (with the claims ratio for this specific cover reaching 123 per cent in that year) — there was a jump in the number of domestic burglaries recorded in Austria's crime statistics in 2004 (just over 50 per cent higher than 2003).
- 7.23 Discrete expense ratio information was not forthcoming for the individual strands of property insurance in Austria. That said, in non-life insurance as a whole, the gross expense ratio has averaged about 24 per cent in the last few years. If a similar ratio held for the property segment by itself, then the combined ratio would have exceeded 100 per cent in 2000 and 2002 only.

Belgium

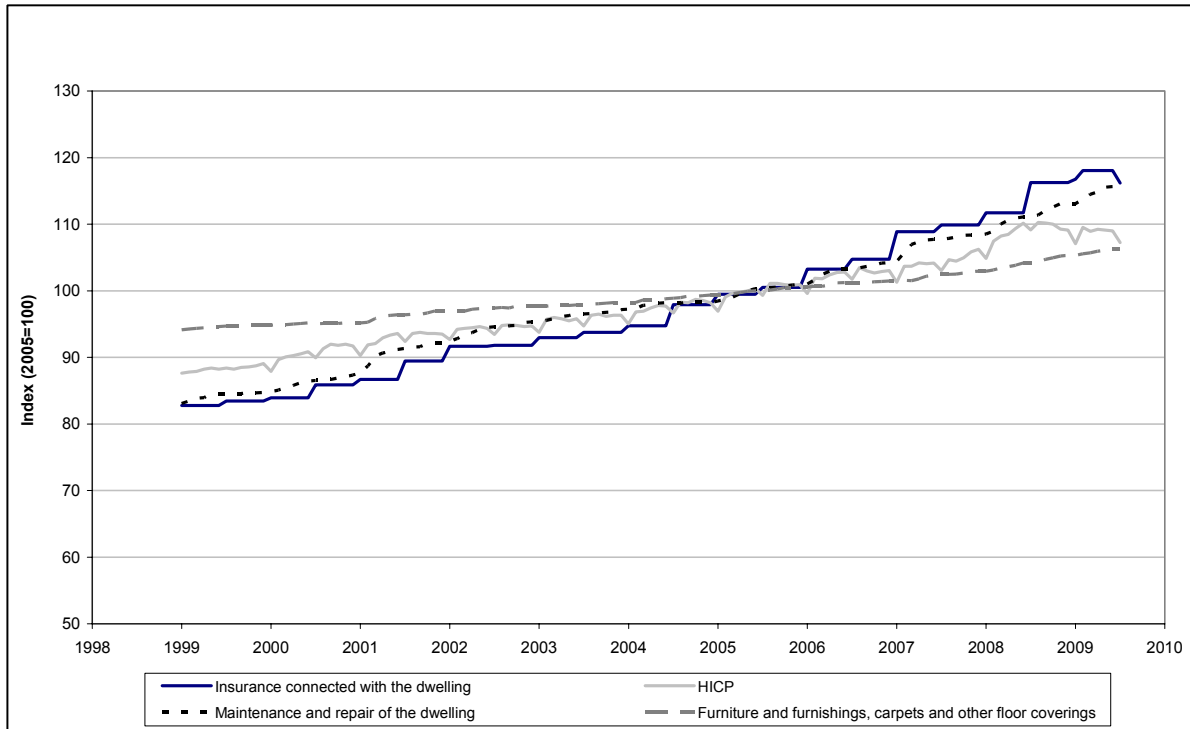
- 7.24 The HHI for the Belgian market for home insurance has been calculated at just over 1,000, indicating a moderate degree of concentration, with the CR5 at just under 68 per cent. The distribution of home insurance takes place predominantly through independent intermediaries (over 60 per cent of the market).
- 7.25 The entry of direct-only insurers (via the internet or phone) from the 1990s has not been wholly successful as yet — in the opinion of a large Belgian insurer more time is needed to break even with this model. This is related to the more traditional culture of the market where a personal interface is very important.

⁹¹ Swiss Re Sigma (2/2007), "Natural catastrophes and man-made disasters in 2006".



Premiums

Figure 7.7: Evolution of the Domestic Insurance and Related Indices in Belgium, 1999-2009



Source: Eurostat

7.26 Between 1999 and 2001 the price of home insurance in Belgium has moved in line with the cost of home maintenance and repair. Otherwise, home insurance inflation has been slightly greater than all other inflation, in particular the price of interior furnishings — which has increased only slightly since 1999 — and, to a lesser extent, the general consumer price index. After 2007, inflation in home insurance premiums again overtook inflation in home maintenance, and further increased its lead over other inflation as well.

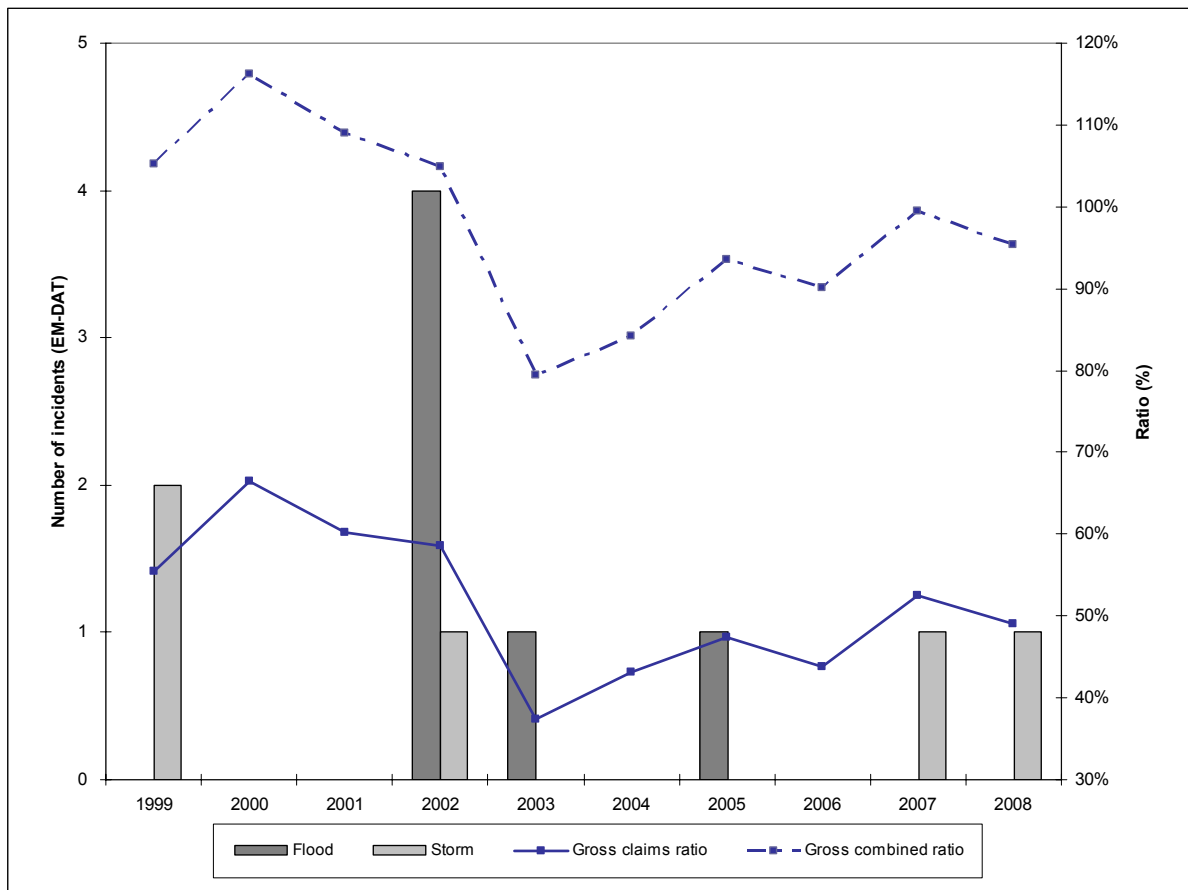
Profitability

7.27 On its own the movement in premiums would suggest an improvement in the claims ratio in Belgium over this period. However, as illustrated below, claims ratios in Belgium have risen since 2003. From 2003 to 2008 premiums written, after a slump in 2005, increased only slightly — a substantial spike in claims in 2007 drove the increase in the claims ratio. The main driver was the damage caused by a serious winter storm, Kyrill, which resulted in a combined insured loss in Germany, UK, Belgium and the Netherlands of €4.2



billion.⁹² Similarly, the spike in the claims ratio in 2005 can be attributed to flood damage and the 2008 level can be attributed to, inter alia, the influence of Storms Hilal and Emma (notwithstanding Em-DAT only recording one storm for Belgium in 2008). Natural catastrophe insurance is compulsory in Belgium for storm and flood damage, as well as landslide and earthquake risk.⁹³

Figure 7.8: Evolution of the Claims and Combined Ratios in Belgium, 1999-2008



Source: Commission Bancaire, Financiere et des Assurances, EM-DAT, EE analysis.

7.28 Crime is unlikely to have been a main driver behind the increase in claims, as the number of property burglaries has decreased steadily since 2004.

7.29 The expense ratio for Belgian property insurance is relatively high by EU standards, moving between 40 and 50 per cent (46 per cent in 2008). This means that the gross combined ratio was above 100 per cent in 1999–2002 (to 116 per cent in 2002), and has been on a secular upward trend from 2003.

⁹² According to the Swiss Re 'sigma' annual report on natural catastrophes, Kyrill was the most costly natural disaster in the world in 2007 (ranked by insurance losses), and was the third most expensive storm in Europe between 1970 and 2007.

⁹³ CEA (2007), "Reducing the social and economic impact of climate change and natural catastrophes".



Bulgaria

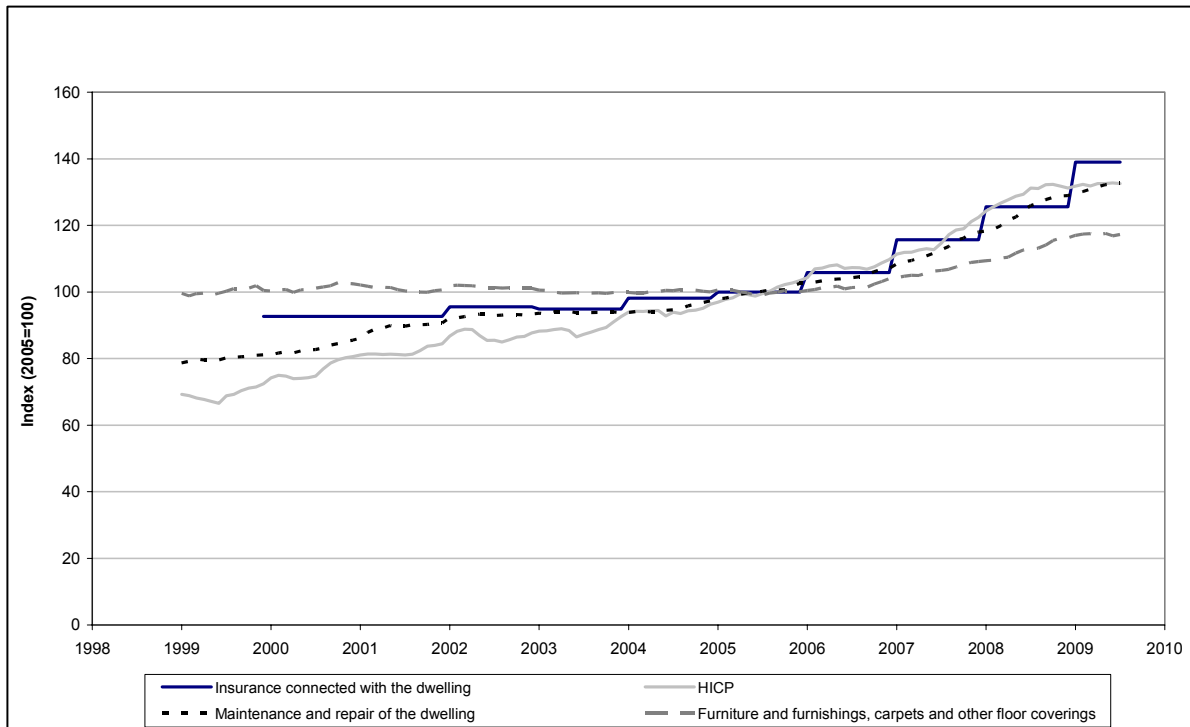
7.30 The Bulgarian insurance market is dominated by subsidiaries of European groups. From our analysis in Section 2, of the 22 operators with a permanent presence in Bulgaria operating in this segment only six are Bulgarian-owned. The HHI for Bulgaria’s home insurance market indicates that it is only moderately concentrated. In addition, there have been a number of new market entrants since accession (six in 2006 and four in 2007) — a significant development in a relatively small market.

7.31 Data from the Bulgarian Financial Supervision Commission (FSC) indicate that the share of independent intermediaries in distributing fire insurance has increased from 23 per cent in 2006 to 34 per cent in 2008, with the share of direct distribution falling (the share of tied or multiple intermediaries has remained largely the same over these years). Interestingly, insurance against flood or other natural disasters is predominantly distributed directly, with an average share of this channel between 2006 and 2008 of 56 per cent.

Premiums

7.32 The price of home insurance on an average property in Bulgaria has increased steeply since 2006 after a period of stability. This increase in the growth rate has been in line with the rise in the general consumer price level and the cost of home repair.

Figure 7.9: Evolution of the Domestic Insurance and Related Indices in Bulgaria, 1999-2009



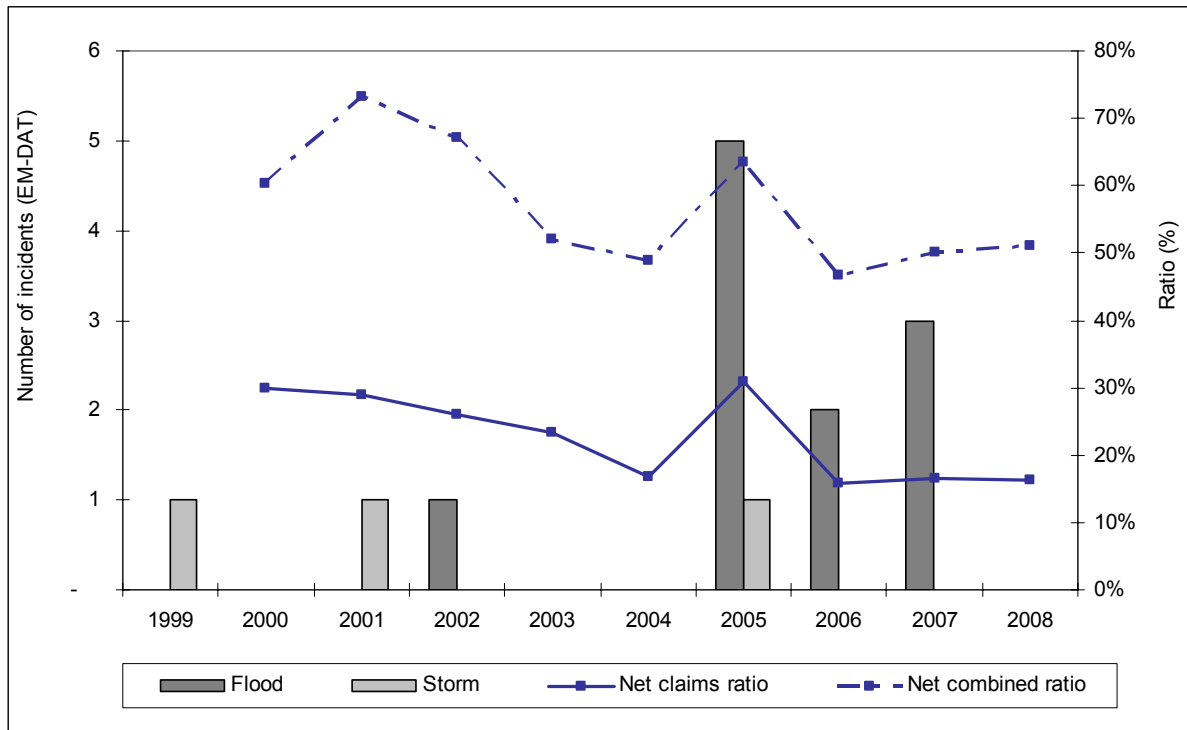
Source: Eurostat



Profitability

- 7.33 According to the national supervisor, the FSC, only 10 per cent of all dwellings were insured against flood in 2009. However, our mystery shopping exercise found that the cheapest home insurance quote included a degree of cover for flood and storm — so this proportion may be increasing. On the other hand, it could indicate that the FSC’s data only relate to such natural disaster insurance that is taken out separately to general home.
- 7.34 The claims ratios are relatively low compared to other Member States. The ratio has been below 30 per cent throughout the period 2000–2008, with the exception of 2005. It is most likely that the high claims ratio in 2005 is the result of the five floods (notwithstanding the limitations in coverage) and one storm that occurred in that year. Although aggregate claims were higher in 2007 than 2006, premiums increased by an even larger proportion, thus explaining the decrease in the claims ratio between these two years despite the floods.
- 7.35 Burglary cover is not shown separately in Bulgarian home insurance, but it is unlikely that this crime had much influence over the claims ratio between 2005 and 2007, the number of property burglaries remaining relatively stable since 2005.

Figure 7.10: Evolution of the Claims and Combined Ratios in Bulgaria, 2000-2008



Source: Financial Supervision Commission, EM-DAT, EE analysis

- 7.36 The net expense ratio has fluctuated somewhat over the period from a low of just under 29 per cent in 2003 and a high of just under 45 per cent in 2001. However, in the last five



years it has been relatively stable at between 30 and 35 per cent. It follows that this insurance line has achieved very significant profitability in Bulgaria.

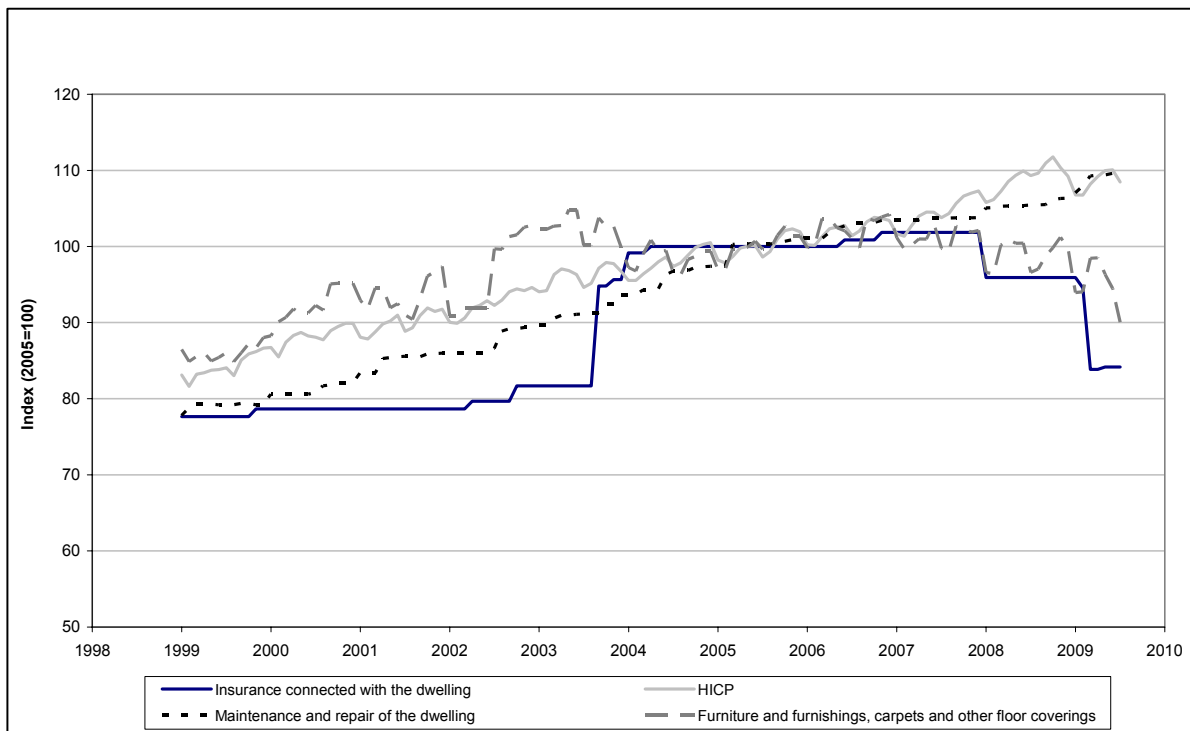
Cyprus

7.37 The competitiveness and concentration of the home insurance market in Cyprus is in line with most Member States, with an HHI of 1,146 and a CR5 index of 67.5 per cent, i.e. exhibiting a moderate degree of concentration. The two largest non-life insurers in Cyprus together have between 30 per cent and 36 per cent of the market. Distribution in the non-life insurance market is largely done directly or through tied intermediaries (with approximately 50 per cent and 40 per cent shares respectively).

7.38 The view of an interviewee was that policyholders do not change insurer frequently (i.e. there is low attrition) and that when this occurred the causal agent was normally a bad experience (e.g. in terms of claims management) rather than simply price — in other words, a culture of emphasising personal relationships play a role here; consumers may prefer to deal directly with a long-standing company or its agent, rather than ‘shopping around’ for insurance on price. However, our interviewee noted that, as insurers begin to offer “simpler” products, such as standard home insurance, for online purchase this assumption will be tested.

Premiums

Figure 7.11: Evolution of the Domestic Insurance and Related Indices in Cyprus, 1999-2009



Source: Eurostat



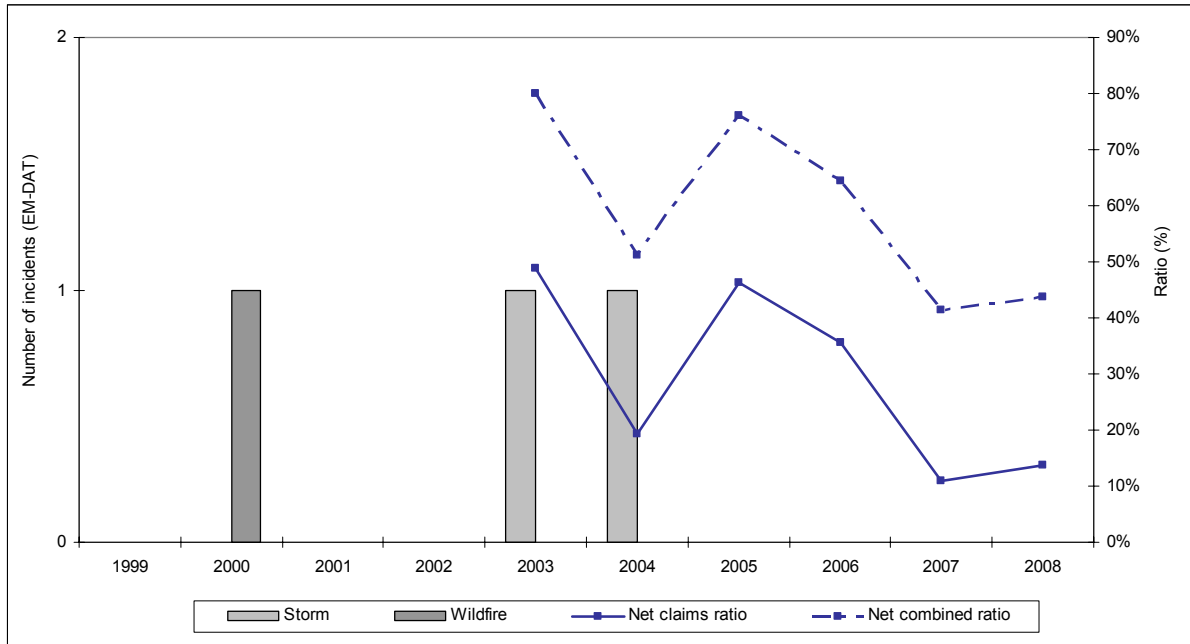
7.39 Until 2004 the price of home insurance on an average property in Cyprus has been very stable, increasing very little in contrast to the upward trends of other prices. After 2004 there is a steep increase in the growth rate of home insurance prices (which may be in part due to a change in the definition of an ‘average property’), and then an apparently marked decline from the beginning of 2008. This decline is in line with the movement of interior furnishing prices, but contrary to the continued increase in general consumer price levels and the cost of home maintenance. This would suggest a small decline in profitability for the home insurance market for 2008–09.

Profitability

7.40 The net claims ratio indicates has been decreasing 2003 through to 2007, with a small spike in 2006 and a slight reversal of this trend in 2008. Aggregate premiums collected and claims paid over this period shows that this decline is the result of both a steady increase in premiums since 2003 and a decline in claims paid (particularly sharp after 2006).

7.41 This segment has generated a high degree of profitability (relative to premiums) in Cyprus in this period. The claims and combined ratios is depicted below.

Figure 7.12: Evolution of the Claims and Combined Ratios in Cyprus, 2003-2008



Source: Insurance Companies Control Service, EM-DAT, EE analysis

Czech Republic

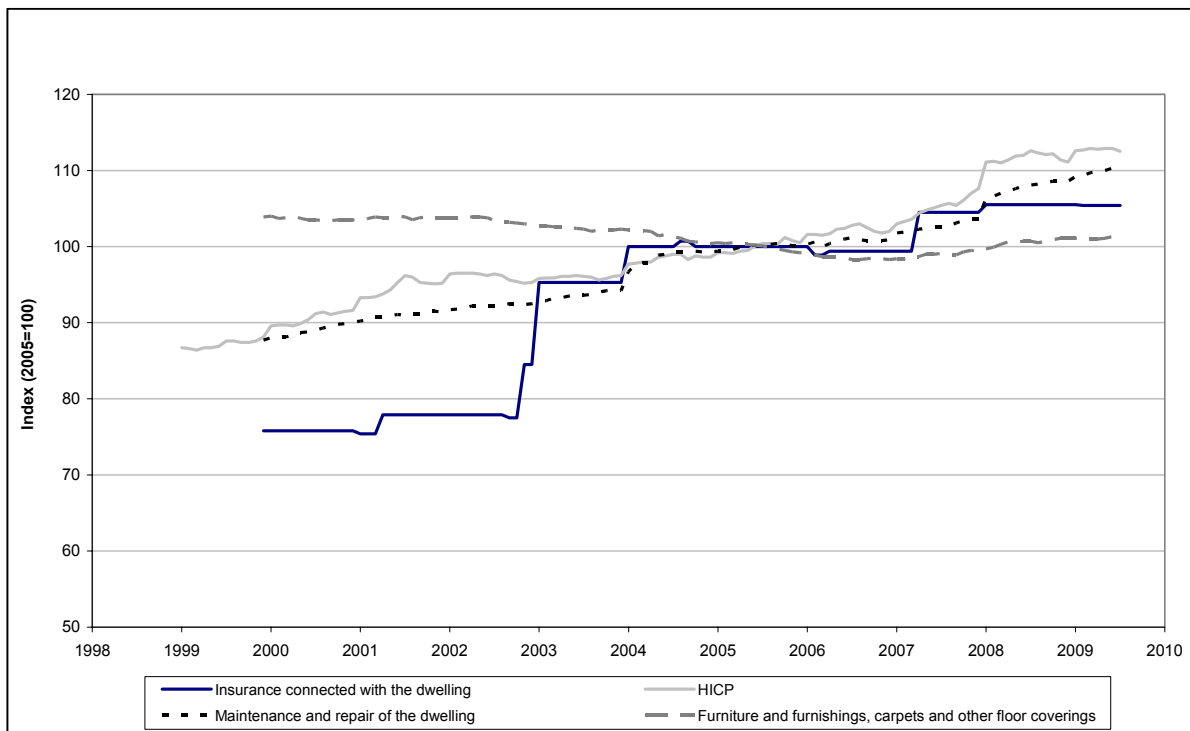
7.42 The home insurance market in the Czech Republic is highly concentrated, with the top five insurance companies controlling 90 per cent of the market.



Premiums

7.43 Until 2003 home insurance prices in the Czech Republic increased at a slower rate than both general consumer price inflation and the cost of home repair. Since an apparent steep increase in home insurance prices at the end of 2002, it has moved broadly inline with the other inflation drivers, before flattening out in the first quarter of 2007.

Figure 7.13: Evolution of the Domestic Insurance and Related Indices in the Czech Republic, 1999-2009



Source: Eurostat

Profitability

7.44 The net claims ratio is fairly volatile between 2001 and 2008, spiking at over 75 over cent in both 2002 and 2006. The volatility is largely explained by the meteorological damage resulting from floods and storms in this period. Storm damage cover is estimated at in excess of 75 per cent (despite being optional); flood damage cover is below this level, but still substantial.⁹⁴

7.45 Significant flooding in the Danube and Elbe basins impacted upon the Czech Republic in August 2002 (causing an estimated €1.2 billion of insured losses in the Czech Republic alone — this is equivalent to 1.5 per cent of Czech GDP in that year), driving up the

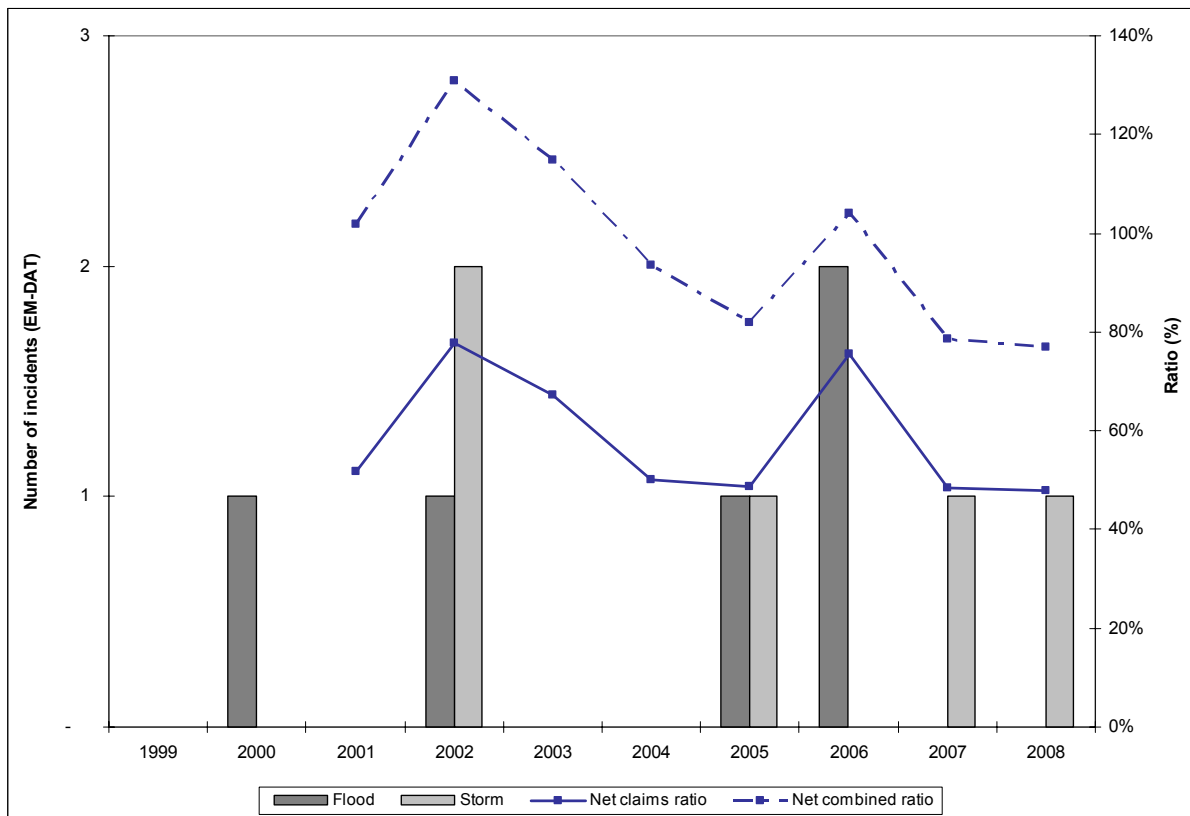
⁹⁴ CEA (2007), “Reducing the social and economic impact of climate change and natural catastrophes”.



claims ratio significantly. The uplift in average premiums subsequently, as illustrated above, should be viewed in this context.

- 7.46 In 2006, the Elbe and other rivers again burst their banks (albeit less damagingly than in 2002). Earlier in that same year, the Czech Republic — amongst other CEE Member States — had suffered a severe cold snap.⁹⁵
- 7.47 Another key driver of claim frequency, property crime, has decreased steadily since 2002, with the number of home burglaries 36 per cent lower in 2006 than 2002 (however, a secular trend such as this should be more straight-forward for insurance companies to anticipate and reflect upfront in their pricing of policies).

Figure 7.14: Evolution of the Claims and Combined Ratios in the Czech Republic, 2001-2008



Source: Česká národní banka, EM-DAT, EE analysis

- 7.48 The net expense ratio has been around 30 per cent since 2005 — whilst the high losses in 2006 resulted in an underwriting loss this business line has returned to profitability in 2007–08. A significant part of this improvement in performance over the period 2001–

⁹⁵ Swiss Re, Sigma 2/2007, “Natural Catastrophes and Man-made Disasters in 2006”.



2004 relates to a reduction in the expense ratio, which averaged nearly 50 per cent in this earlier period

Denmark

- 7.49 The Danish home insurance market exhibits a moderate degree of concentration. Independent intermediaries hold a 15 per cent share of non-life distribution as whole.
- 7.50 In 2004 Konkurrencestyrelsen, the Danish Competition Authority, published an analysis of competition in the non-life insurance sector. Increases in premiums since 2000 had been a concern, and one of the problems identified was the low attrition driven by the reluctance of consumers to switch insurers. Furthermore, the insurance companies adjusted the premiums automatically using an indexation scheme which had resulted in increasing premiums. As an aside, switching tends to be higher in motor insurance than in home insurance. A major factor here is that claims are more frequent in motor insurance and making a claim means that (i) a policyholder becomes better informed about the actual service quality of the insurer — for good or bad), and (ii) the tariff is likely to be revisited by the insurer, since the insurer also has a new information set (based upon the claim made). In addition, a further spur to a policyholder to revisit insurance provider is when the insured property changes — and people change car more often than they change house.
- 7.51 The Competition Authority recommended that the insurance companies change their usual policy of applying an automatic, annual indexation fee to the insurance premiums, and instead stress specifically to their customers when, why and how much premiums are being regulated. The companies were also urged to reconsider the practice including expenses and profit in the indexation. It was also recommended that the stamp duty on non-life insurance contracts be adjusted so that consumers moving their insurance contracts from one company to another can avoid this additional duty.
- 7.52 In order to improve consumer mobility between insurance companies, it was recommended that the insurance sector financed the establishment of a rating system with the purpose of facilitating comparisons between the companies regarding performance and products. In 2004 insurance companies took the first step by modernising 'Forsikringsluppen' — an internet portal comparing premiums and insurance coverage for both home and motor insurance.⁹⁶

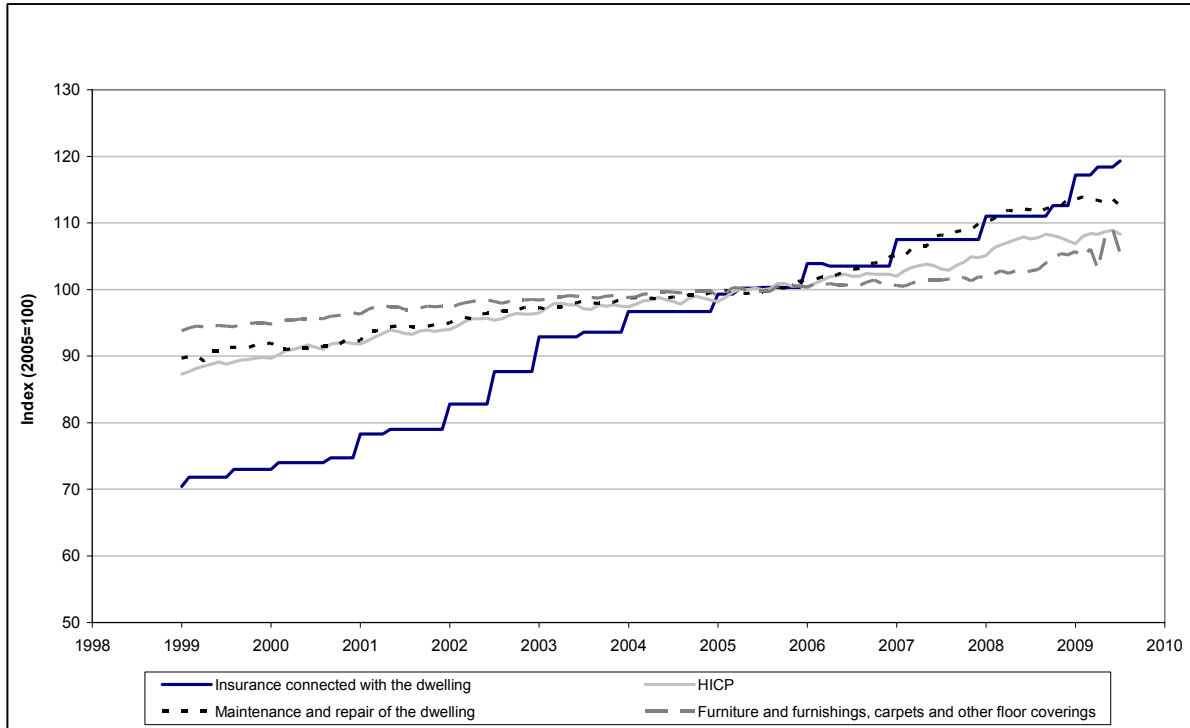
Premiums

- 7.53 The price of home insurance on an average property in Denmark has increased significantly more rapidly than its key price drivers since 1996, although after 2005 home repair costs and home insurance inflation have moved broadly in lock step.

⁹⁶ See <http://www.forsikringsguiden.dk/Sider/default.aspx>. Accessed 2 September 2009.



Figure 7.15: Evolution of the Domestic Insurance and Related Indices in Denmark, 1999-2009



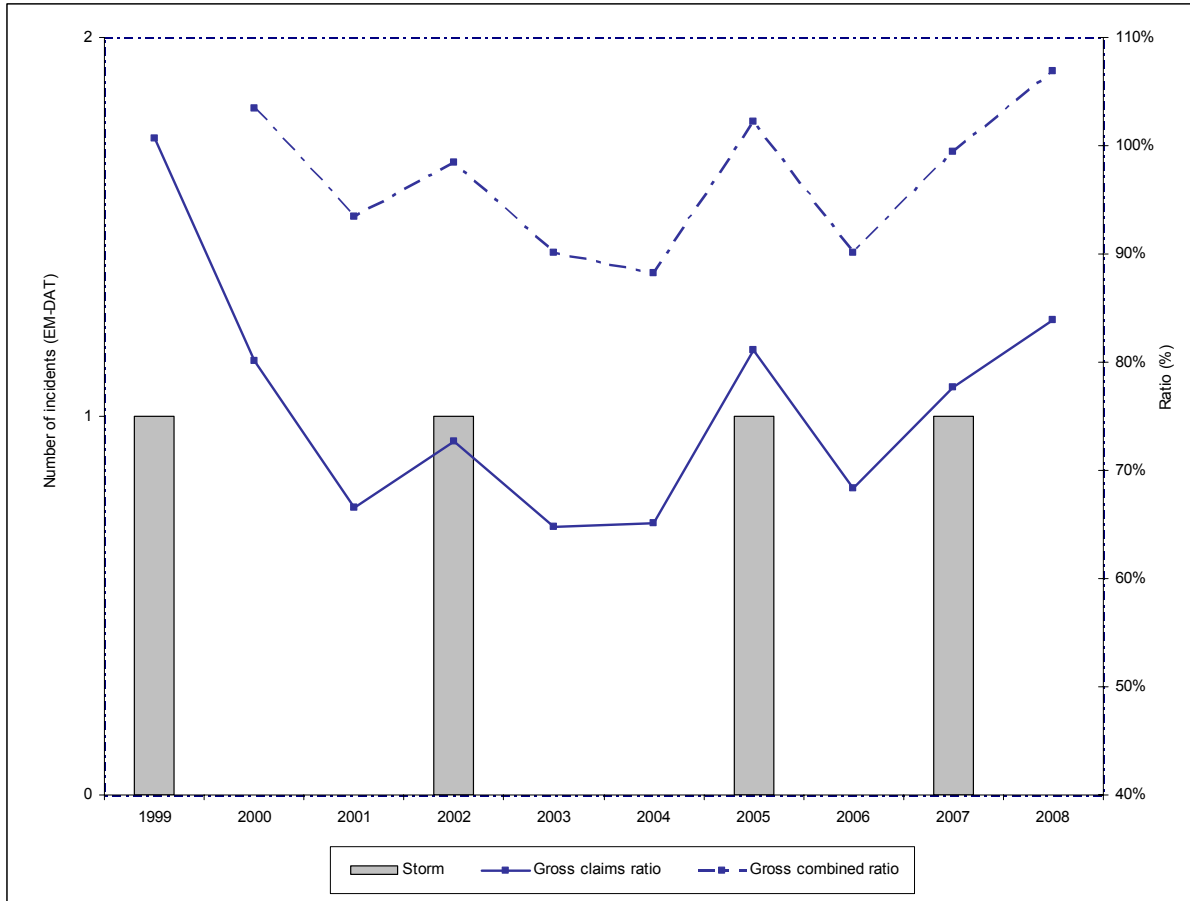
Source: Eurostat

Profitability

- 7.54 There are a number of distinct home insurance products in Denmark, namely household insurance (contents), homeowners (structural) and vacations home (that being vacation homes in Denmark) insurance. The gross claims ratio graphed below represents a weighted average of these.
- 7.55 The claims ratio dropped significantly from its 1999 level through to 2001. This may in large part relate to the impact of Winter Storm Anatol in 1999. Between 2001 and 2007 the gross claims ratio for property insurance has ranged between 65 per cent (in 2003) and 81 per cent (2005), as graphed below in Figure 7.16. A significant driver of the volatility has again been the storms during this period, in particular winter storm 'Erwin' in 2005 which impacted significantly on Denmark, Sweden, the UK and Germany and resulted in a total loss of €1.5 billion. Winter Storm Resi (not recognised as a disaster by EM-DAT in Denmark) may have had some upward influence on the claims ratio in 2008.
- 7.56 Other potential drivers of claims ratios, such as domestic fires and property burglaries, are more stable than the meteorological incidents and do not appear to be significant drivers of the year to year changes in the claims ratio. Claims for fires at private homes decreased from 2004 to 2005, and the number of burglaries has only changed an average of six per cent each year from 1999 to 2006.



Figure 7.16: Evolution of the Claims and Combined Ratios in Denmark, 1999–2008



Source: Finanstilsynet, EM-DAT, EE analysis

7.57 On the other hand, with an expense ratio of just above 20–22 per cent in most years, the combined ratio exceeded (just) 100 per cent in 2007 and has been in excess of 90 per cent in all years save 2004.

Estonia

7.58 The HHI and CR5 for the home insurance market show that it exhibits a very high degree of concentration. On the other hand, in terms of distribution independent intermediaries hold a relatively high share of 50 per cent; this should significantly compensate for the high concentration in the market and the desire of consumers to compensate for this by engaging in market-wide searches. Finantsinspektsioon (the Estonian Financial Supervision Authority) sees increasing competition, in part driven by increased presence by non-Estonian firms.

Premiums

7.59 Estonia does not publish data on the home insurance sub-set of the HICP and therefore we have not included a chart in respect of the path of home insurance premiums in Estonia.

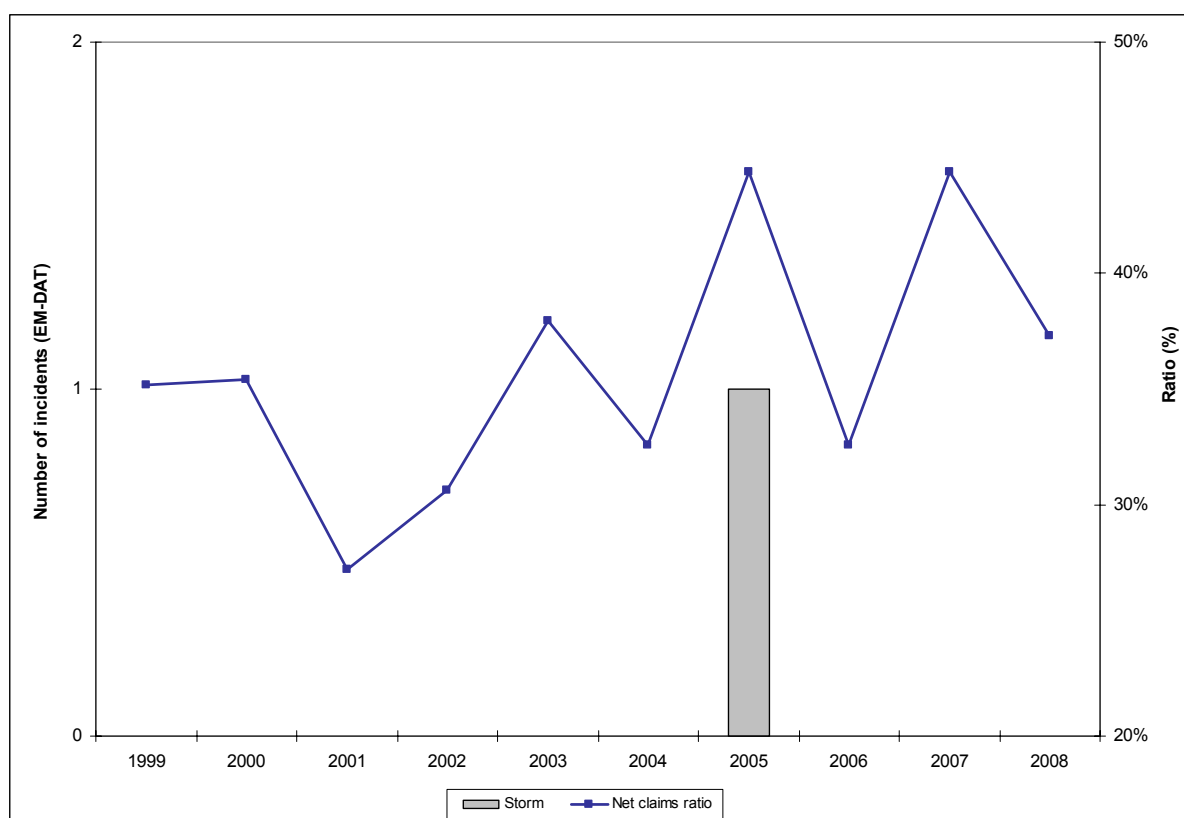


7.60 Data on aggregate premiums show that the property insurance market in Estonia (including commercial property) has grown from €9 million in gross premiums in 1999 to €50 million by 2008. Home insurance represents about 60 per cent of this: the growth of this market has been primarily driven by the obligation imposed by the banks to borrowers to insure dwellings purchased on mortgage.⁹⁷

Profitability

7.61 The household property insurance net claims ratio is very low compared to other Member States, averaging 36 per cent between 1999 and 2008. The spike in 2005 is due to an increase in aggregate claims in that year, most likely the result of the winter storm Erwin that affected Estonia along with Denmark, Sweden, the UK and Germany.

Figure 7.17: Evolution of the Claims Ratio in Estonia, 1999-2008



Source: Finantsinspeksioon, EM-DAT, EE analysis

7.62 Net expense ratio data is not separately available for this segment in Estonia. However, let us assume that the expense ratio of the non-life sector as a whole was applicable to

⁹⁷ Finantsinspeksioon (Financial Supervision Authority), Annual Report 2007. We have not investigated whether any bundling with, say, Payment Protection Insurance was also involved as this is outside the scope of this study.



home insurance (i.e. that the administrative burden of handling claims and the cost of customer acquisition were broadly equivalent to the non-life sector as a whole). In this case, the combined ratio would average 65 per cent in the period 1999–2008 and 63 per cent in 2001–2008 (the overall expense ratio has declined somewhat over the period). This corresponds to a very high rate of profitability in the Estonian home insurance market (at least one third of premiums flow through to profit).

Finland

7.63 The Finnish market for home insurance is moderately concentrated (the HHI has been calculated at over 1,600 and the CR5 at 80 per cent). Further, distribution by the direct channel (including via bancassurance partners — Finns are somewhat used to single-sourcing their financial products) and by tied agents are very important in private lines insurance in Finland — at most 15 per cent takes place through the use of independent intermediaries.⁹⁸

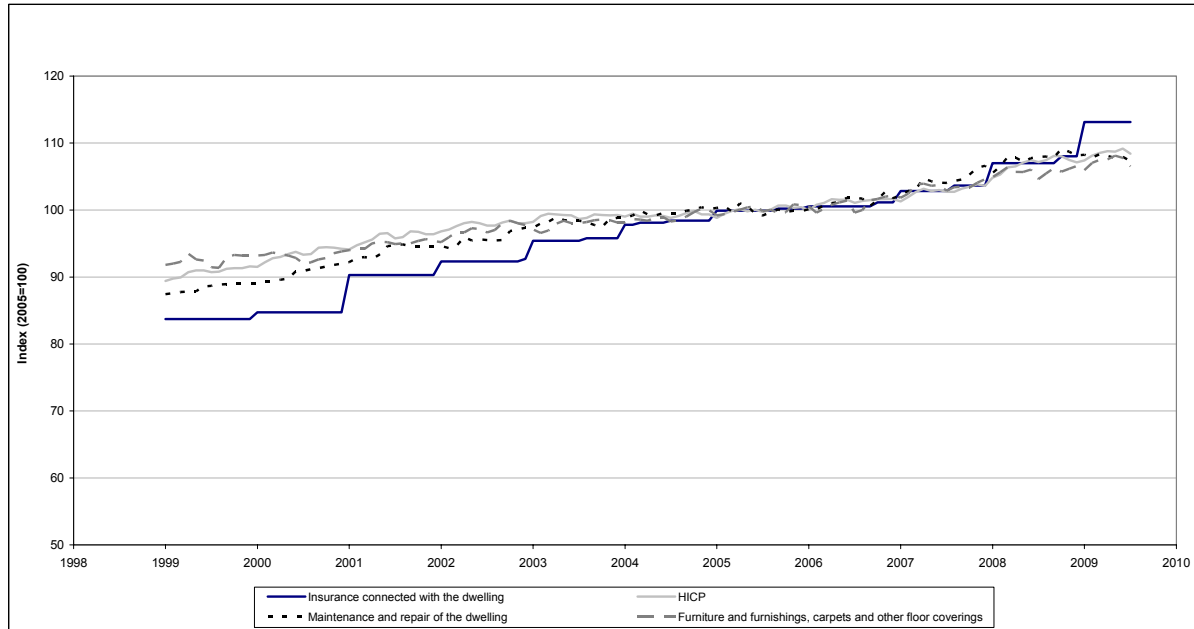
Premiums

- 7.64 Between 1999 and 2009, inflation in the average price of home insurance in Finland surpassed the inflation increases in all of the other measures presented in Figure 7.18 below. However, from 2005 the annual changes in the average price of home insurance are more closely aligned with all of these measures.
- 7.65 Price comparison websites have started to appear also — although their market share remains small (much less than 10 per cent), these are acting to increase price competition.

⁹⁸ La Fédération européenne des intermédiaires d'assurances (the European Federation of Insurance Intermediaries), abbreviated as BIPAR.



Figure 7.18: Evolution of the Domestic Insurance and Related Indices in Finland, 1999-2009



Source: Eurostat

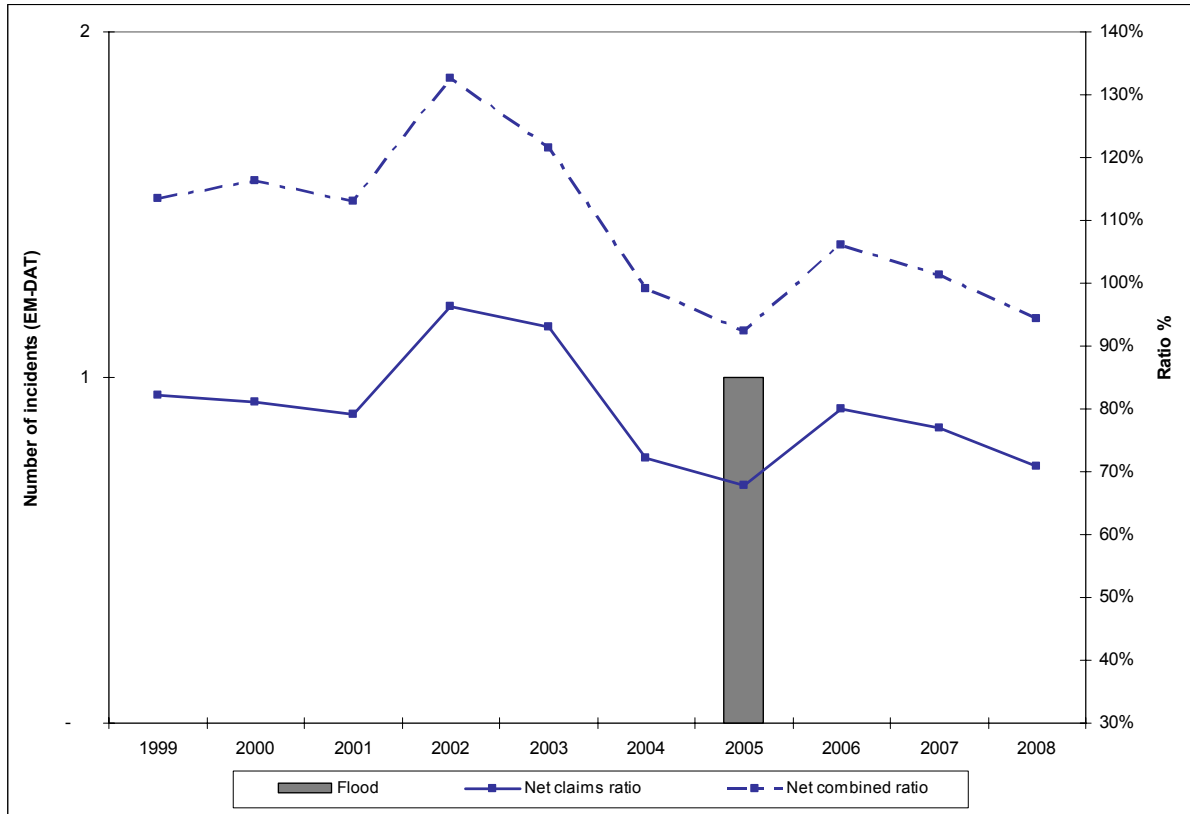
Profitability

- 7.66 An interviewed market participant estimated that around 95 per cent of Finnish homeowners have cover; this reduces to around 60 per cent in the rental market. In Finland, although storm cover is optional, the penetration rate for this type of cover has been estimated to be over 75 per cent. Flood cover (also optional), in contrast, is estimated to cover only 10–25 per cent of homes.⁹⁹
- 7.67 The lack of impact by the 2005 flood is therefore perhaps unsurprising. Changes in the number of domestic burglaries are also unlikely to have led to the increase in the claims ratio in 2006 as they were actually decreasing over this period (particularly from 2004 onwards).
- 7.68 As can be seen above, between 2002 and 2008 the net claims ratio fell considerably (i.e. from over 90 per cent to about 70 per cent) — the price inflation that we have noted previously will have (in large part) driven this.
- 7.69 Although the net expense ratio has drifted down from above 30 per cent (1999–2002) to below 25 per cent (2007–08) the only years in which the combined ratio dipped below 100 per cent were 2005 and 2008.

⁹⁹ CEA (2007), “Reducing the social and economic impact of climate change and natural catastrophes”,



Figure 7.19: Evolution of the Claims and Combined Ratios in Finland, 1999-2008



Source: *Finanssivalvonta, EM-DAT, EE analysis*

France

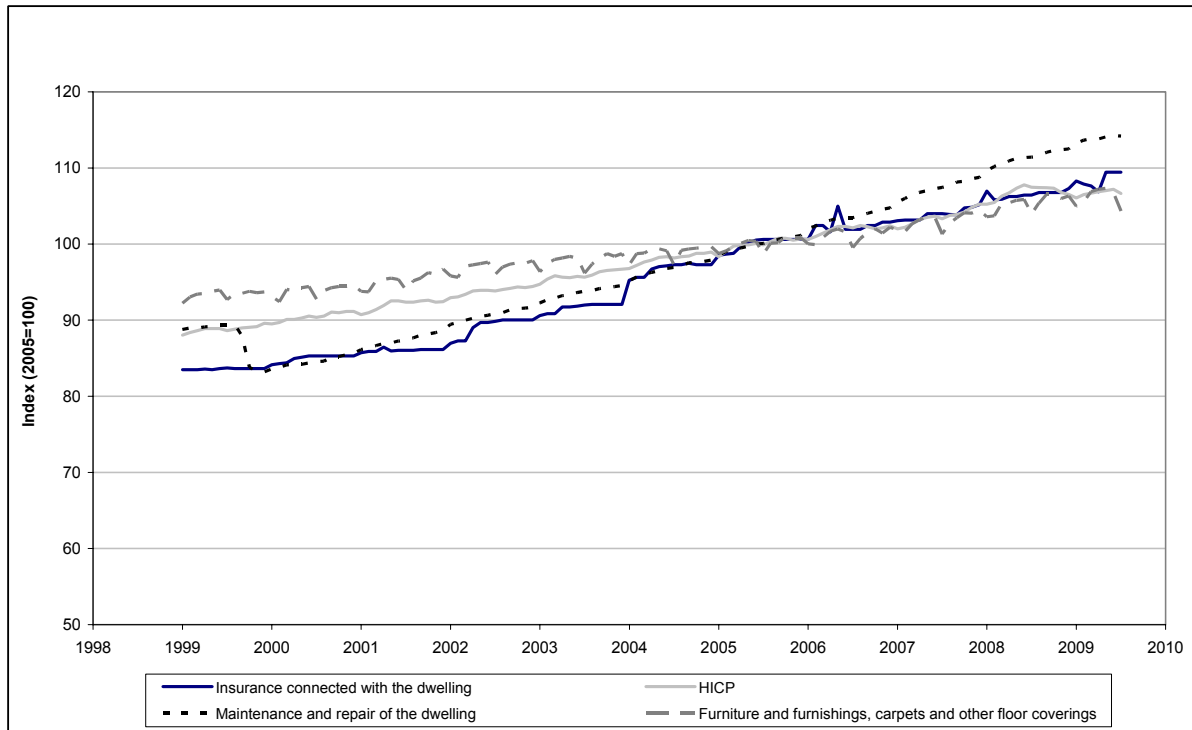
7.70 The non-life market as a whole in France is not concentrated (data for individual segments is not available). On the other hand, independent intermediaries do not play a particularly significant role (at below 20 per cent of all non-life insurance sales).

Premiums

7.71 Between 1999 and 2006 the increase in the cost of insuring an average property in France moved closely in line with changes in maintenance and repair costs (see Figure 7.20 below). The rate of increase in the average cost of property insurance did however outstrip inflation in furniture and furnishing costs as well as general consumer price inflation. In contrast, from 2006 the average cost of property insurance moved very closely with both the latter and the former, while inflation in maintenance and repair costs surpassed all of these.



Figure 7.20: Evolution of the Domestic Insurance and Related Indices in France, 1999-2009



Source: Eurostat

Profitability

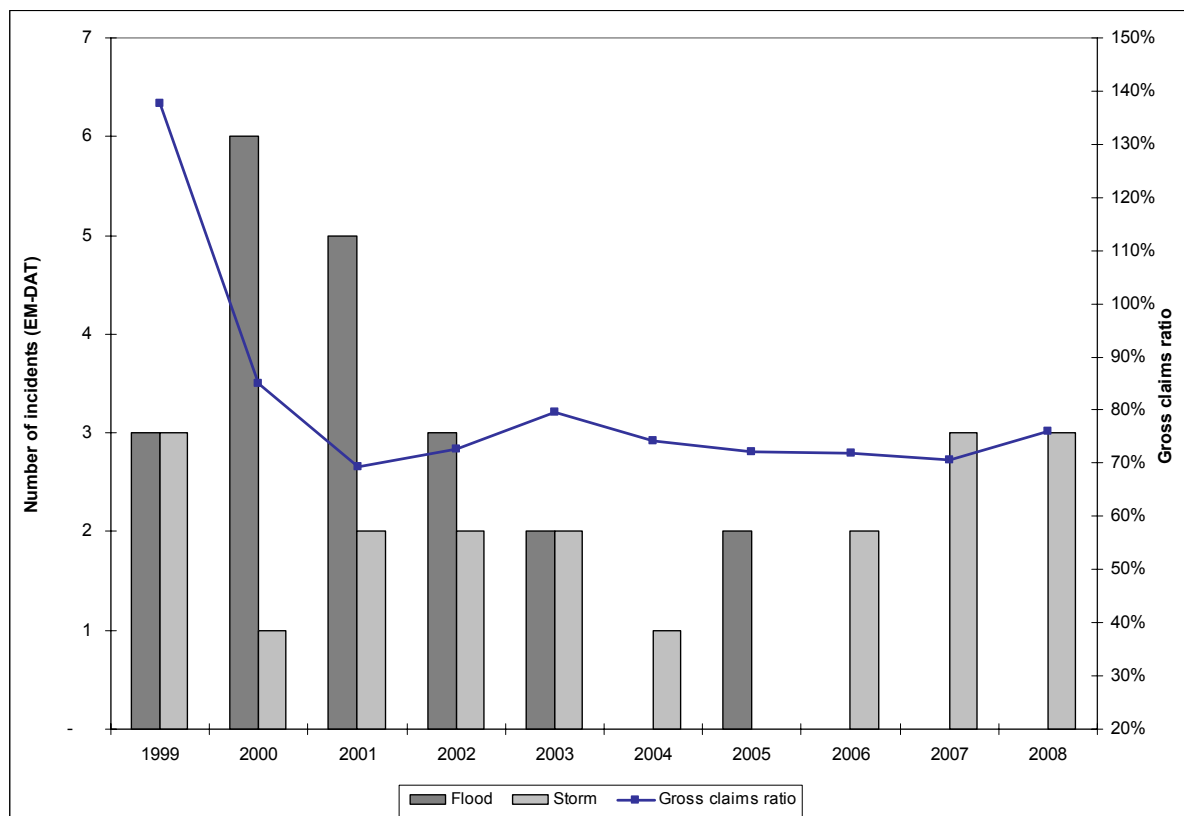
- 7.72 On the face of it, this movement in premiums could suggest that profitability between 1999 and 2005/06 would have been increasing. Indeed, between 1999 and 2003 the private property gross claims ratio declined sharply. The very high claims ratio experienced in 1999 reflects in large part the impact of Storms Lothar and Martin, which between them caused about €3–4 billion of insured losses in France.¹⁰⁰
- 7.73 The gross claims ratio has stabilised from 2001 onwards. This is despite a number of adverse weather (such as storm fronts Gerri and Hansi in 2005). Indeed, as both storm and flood coverage is compulsory by law,¹⁰¹ one would expect these to be important drivers of changes in the claims ratio.
- 7.74 The gross expense ratio in the non-life sector been stable within a band of 25–30 per cent of gross premiums: this implies that, despite the improvement, and then stabilisation, of the gross claims ratio, the combined ratio has been above a comfortable range.

¹⁰⁰ Swiss Re Sigma 2/2000, "Natural Catastrophes and Man-made Disasters in 1999".

¹⁰¹ CEA(2007), "Reducing the social and economic impact of climate change and natural catastrophes",



Figure 7.21: Evolution of the Claims Ratio in France, 1999-2008



Source: *Fédération Française des Sociétés d'Assurances, EM-DAT, EE analysis*

Germany

7.75 The German market for home insurance is the least concentrated market in the EU (and is indeed, in terms of the calculated HHI, less notably concentrated even than the motor insurance market in Germany, largely because market leadership of this segment is much less clear cut). The competitiveness of the German market may be de-intensified by the main distribution being through tied agents). However, distribution is much more fragmented than prior to the onset of market liberalisation when exclusive agents had been even more dominant.

7.76 Since then independent intermediaries have increased in importance in this market.¹⁰² In the 1960s, an interviewee estimated that about 90 per cent of distribution was through tied agents — this is now 40-45 per cent. The larger insurers sell through brokers, banks, affinity partnerships, at point of sale and directly, as well as through agents. The sales costs per policy vary significantly, e.g. as high as 15-20 per cent of the premium through a broker, much less through the direct channel.

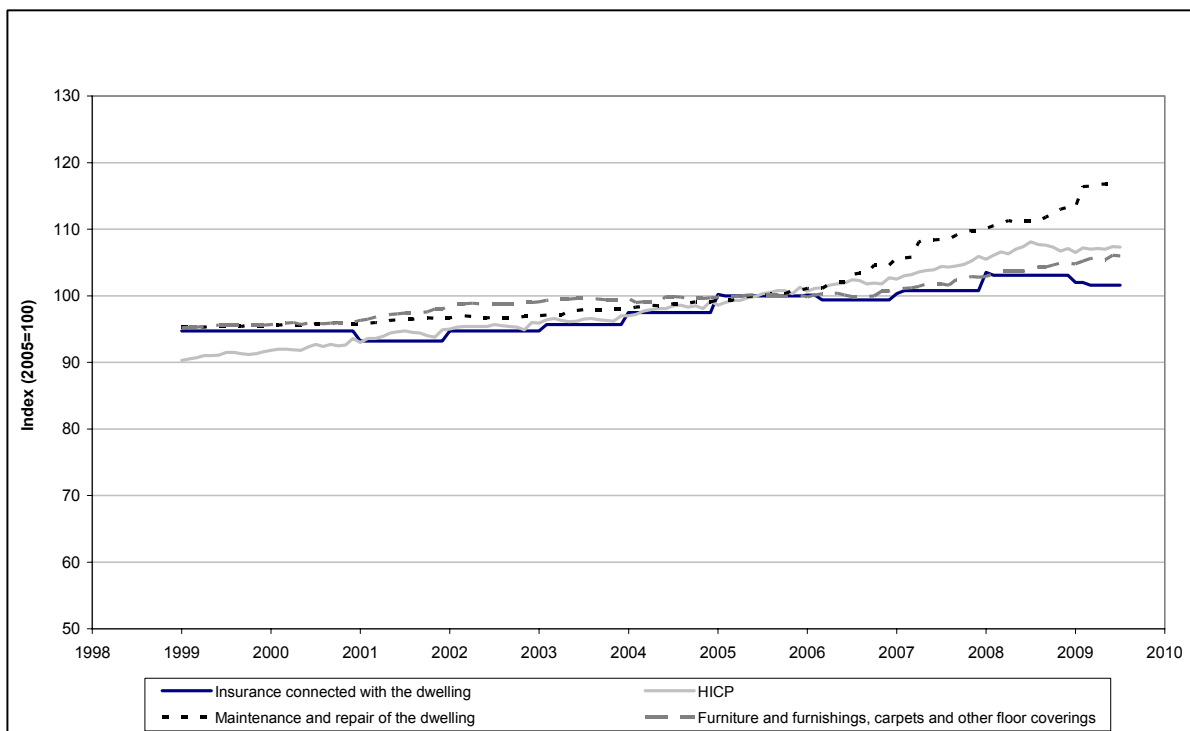
¹⁰² Eckhart, "Reasons for the coexistence of different distribution channels: An empirical test for the German insurance market".



Premiums

7.77 As illustrated in Figure 7.22, the cost of insuring an average home has struggled to keep up with the rate of inflation in furniture and furnishing costs, maintenance costs and, indeed, general consumer price inflation.

Figure 7.22: Evolution of the Domestic Insurance and Related Indices in Germany, 1999-2009



Source: Eurostat

Profitability

7.78 Flood coverage is offered in Germany, but it is rarely taken out. Indeed, the penetration rate of this type of coverage has been estimated to be less than 10 per cent. In contrast, while storm cover is only optional, the penetration rate has been estimated to be above 75 per cent.¹⁰³ Although the changes in the gross claims ratio over the period, as illustrated in Figure 7.23, do not appear to have been sensitive to the incidence of storms and floods in general, but rather to specific events (as one would expect, the severity — particularly in terms of insured loss — varies significantly).

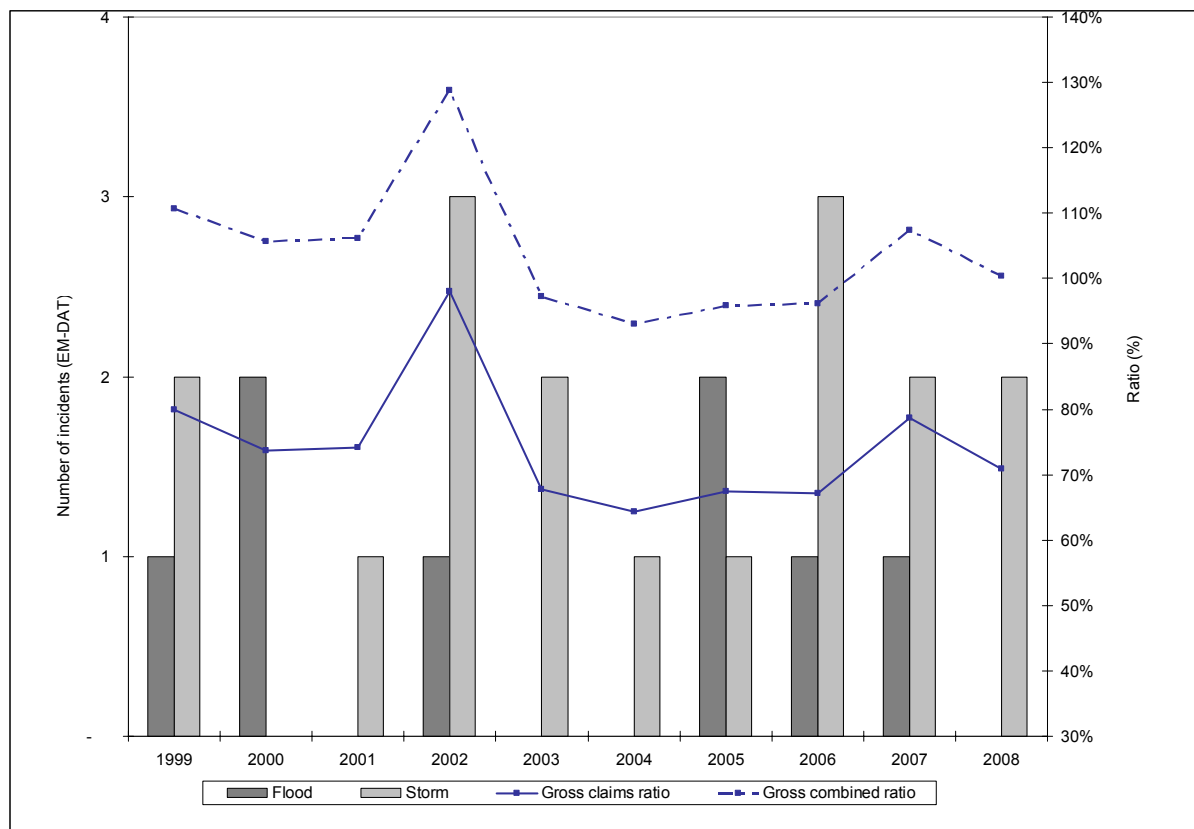
7.79 Indeed, in every year between 1999 and 2008 there was a least one storm and/or flood (thus keeping the claims ratio relatively high). Thus, spikes in the gross claim ratio are

¹⁰³ CEA, (2007), "Reducing the social and economic impact of climate change and natural catastrophes".



only really apparent in those years where storm and/or flood damage was particularly severe (e.g. 1999, 2002 and 2007). In 1999 for example, the small spike in the gross claims premium was likely due to the effects of storm Anatol (which resulted in approximately €600 million of insured losses over Northern Europe). Further, the spike in the gross claims ratio that took place in 2002 was likely to have been driven by the persistent rainfall in Central Europe during that year which resulted in the flooding of the Danube and Elbe basins (both of which impacted upon different regions of Germany, causing an insured loss of €1.8 billion in Germany alone — sufficient to explain a spike of in excess of 15 per cent in the gross claims ratio by itself). Winter Storm Kyrill pushed claims higher again in 2007, with Winter Storm Emma and Storm Hilal maintaining the pressure on policyholders and the insurance companies in 2008.¹⁰⁴

Figure 7.23: Evolution of the Claims and Combined Ratios in Germany, 1999-2008



Source: Bundesanstalt für Finanzdienstleistungsaufsicht, EM-DAT, EE analysis

7.80 With a gross expense ratio of around 30 per cent, this segment of the market has been profitable on an underwriting basis, albeit narrowly, since 2003 although the combined ratio moved back above 100 per cent in 2007–08.

¹⁰⁴ Swiss Re Sigma 2/2008 and 2/2009, “Natural Catastrophes and Man-made Disasters”.



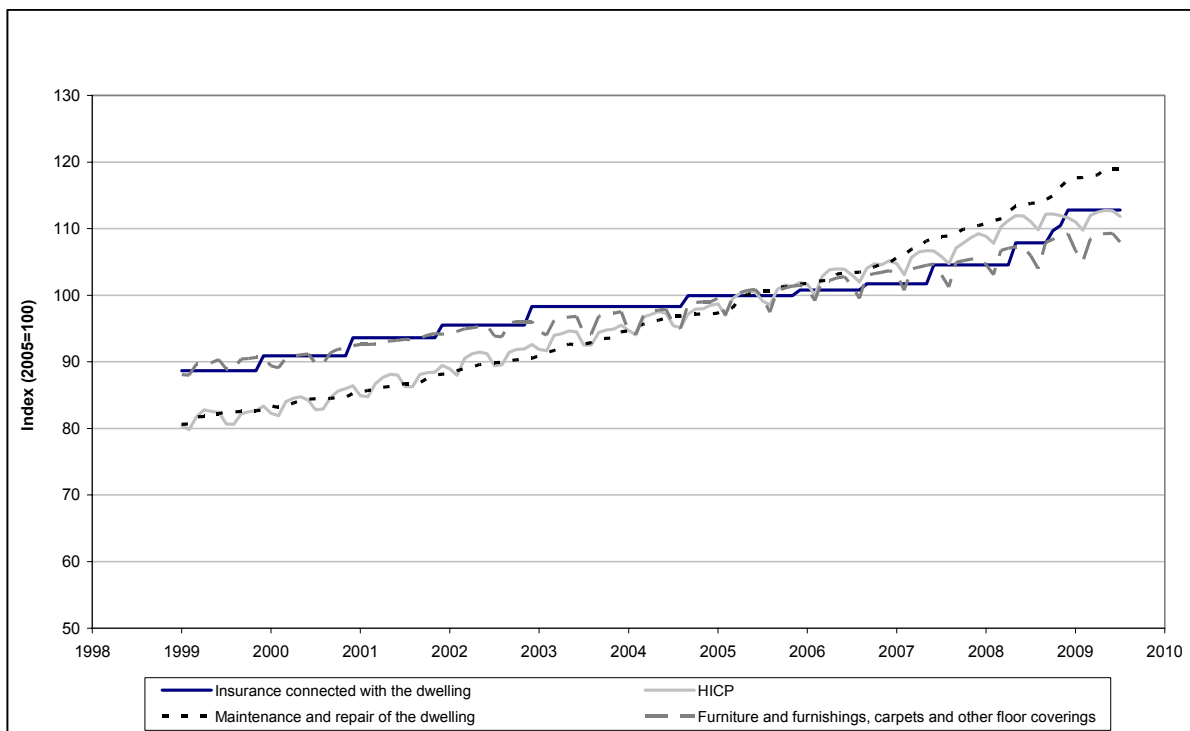
Greece

7.81 The HHI for the Greek market for home insurance indicates that the market is not unduly concentrated (albeit more concentrated than the Greek motor insurance market). While this suggests that the market in Greece is relatively competitive, in practice, this may in fact be reduced by tied agents being the dominant distribution form, with about 70 per cent of non-life policies as a whole being sold through them.

Premiums

7.82 The average cost of property insurance in Greece has increased relatively steadily between 1999 and 2006. Further, the rate of inflation of the average cost of property insurance grew most closely with the inflation in furniture and furnishing costs, but was below that of the changes in maintenance repair costs and the rate of general inflation in consumer prices.

Figure 7.24: Evolution of the Domestic Insurance and Related Indices in Greece, 1999-2009



Source: Eurostat

Profitability

7.83 Data on the profitability of the home insurance segment are not available for the Greek market. However, the drivers of claims frequencies and the implication for the claims ratio, one would not expect that meteorological damage — particularly that arising from storm and/or flood damage, to be an important driver. This is because cover for both of



these, while offered, is very rarely taken up in Greece. In fact, the penetration rate for both of types of cover has been estimated to be less than 10 per cent.¹⁰⁵

Hungary

- 7.84 Hungary's property insurance market is highly concentrated. The two market leaders — with an aggregate share in each market pertinent to this study in excess of 50 per cent — both inherited their portfolios from the formerly state-owned duopoly.
- 7.85 “Bancassurance” is a very important channel for home insurance as new policies are mainly linked to mortgage loans. Tied agents are the most important channel with independent intermediaries having a share of only around 10 per cent of policies.

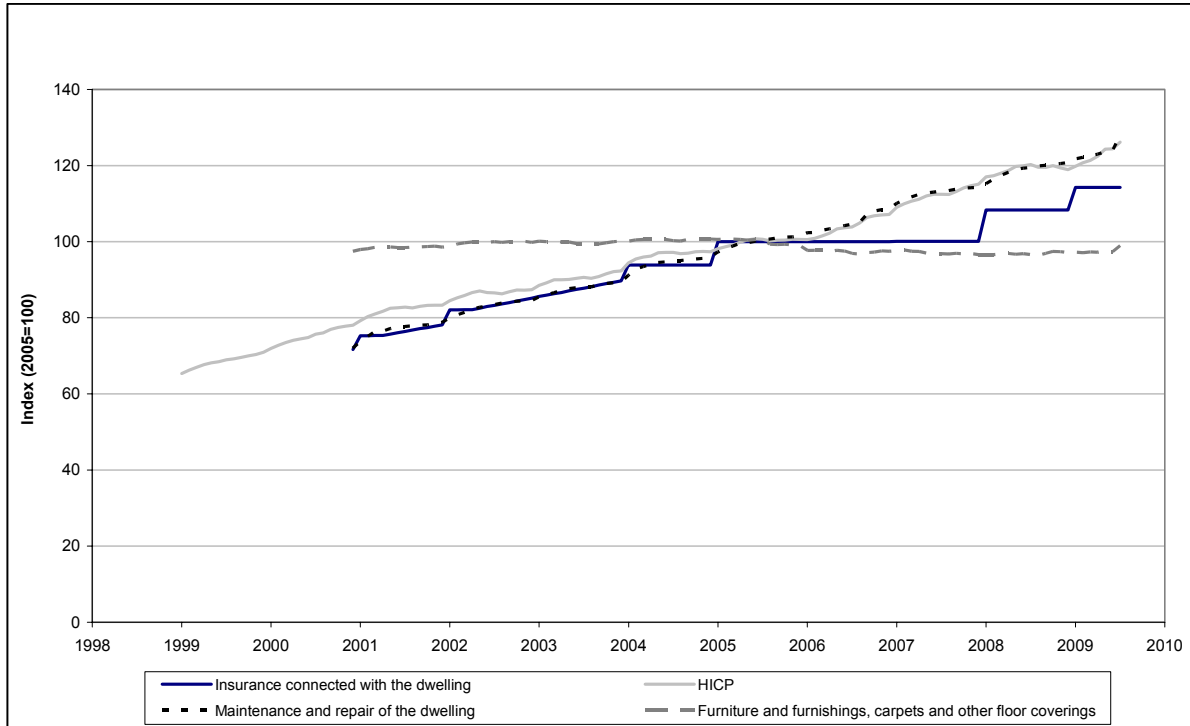
Premiums

- 7.86 In Hungary, the average cost of property insurance between 2001 and 2005 increased very closely in line with inflation in maintenance and repair costs. After a subsequent period of stability, the cost of insuring an average property began to increase at a relatively fast rate from 2008.

¹⁰⁵ CEA, (2007), “Reducing the social and economic impact of climate change and natural catastrophes”



Figure 7.25: Evolution of the Domestic Insurance and Related Indices in Hungary, 1999-2009



Source: Eurostat

Profitability

- 7.87 Between 1999 and 2003, changes in the gross claims ratio was rather volatile, falling between 1999 and 2000, increasing between 2000 and 2001 and then falling significantly again between 2001 and 2002. However, this volatility was around a relatively low mean (in common with many of the markets in the CEE Member States, the claims ratio is lower than is the norm elsewhere).
- 7.88 These changes may in part be due to natural disasters that took place during this period (this would be consistent with the fact that from the information obtained from our mystery shopping exercise, both storm and property cover are covered by basic property insurance policies). Indeed, the high claims ratio in 1999 may be partly related to the significant flooding in that year that caused significant damages.¹⁰⁶
- 7.89 The changes in the gross claims ratio between 2003 and 2008, on the other hand, appear to have been driven in part by changes in the price of property insurance than changes in the propensity of claims. We note, however, that an interviewed market participant

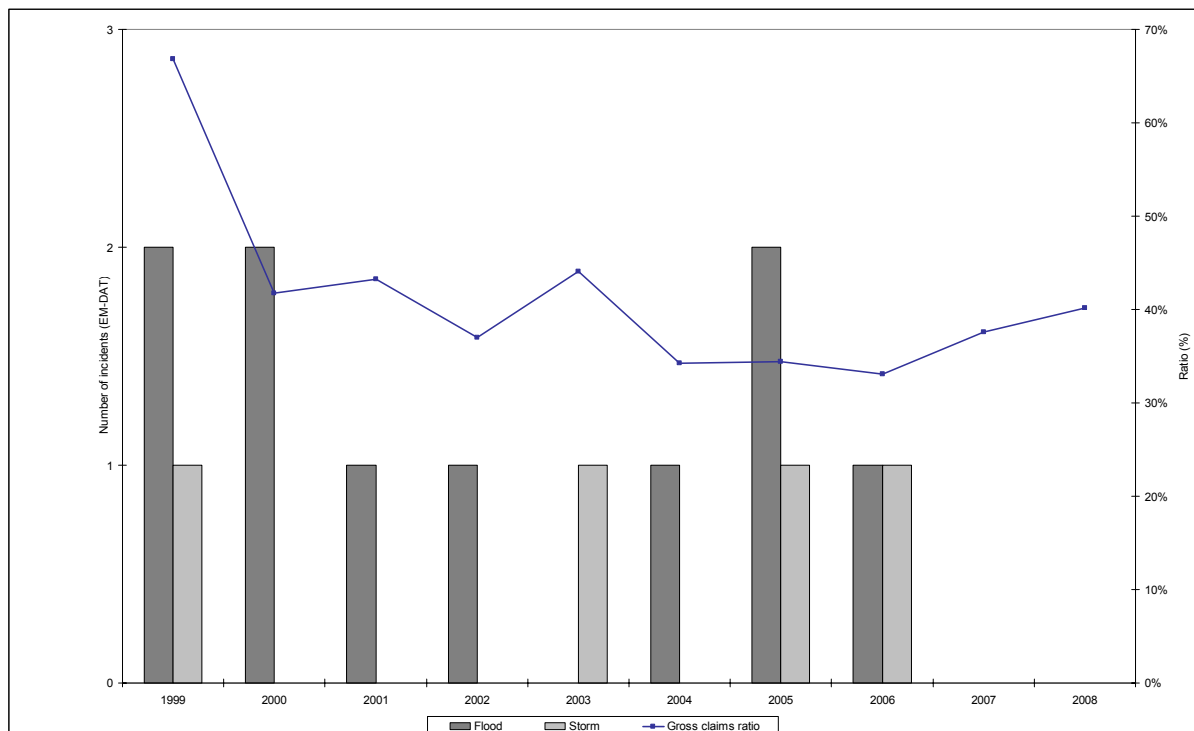
¹⁰⁶ Swiss Re Sigma 2/2000.



attributed the worsening claims ratio on increased winter storm prevalence (even if this has not been picked up by EM-DAT).

- 7.90 Expense ratio breakdown for property insurance in Hungary is not available. The expense ratio of the non-life sector as a whole has averaged just over 33 per cent over the last decade. This implies a high degree of profitability in this segment for market participants (with the probable exception of 1999).

Figure 7.26: Evolution of the Claims Ratio in Hungary, 1999-2008



Source: Pénzügyi Szervezetek Állami Felügyelete, EM-DAT, EE analysis

Ireland

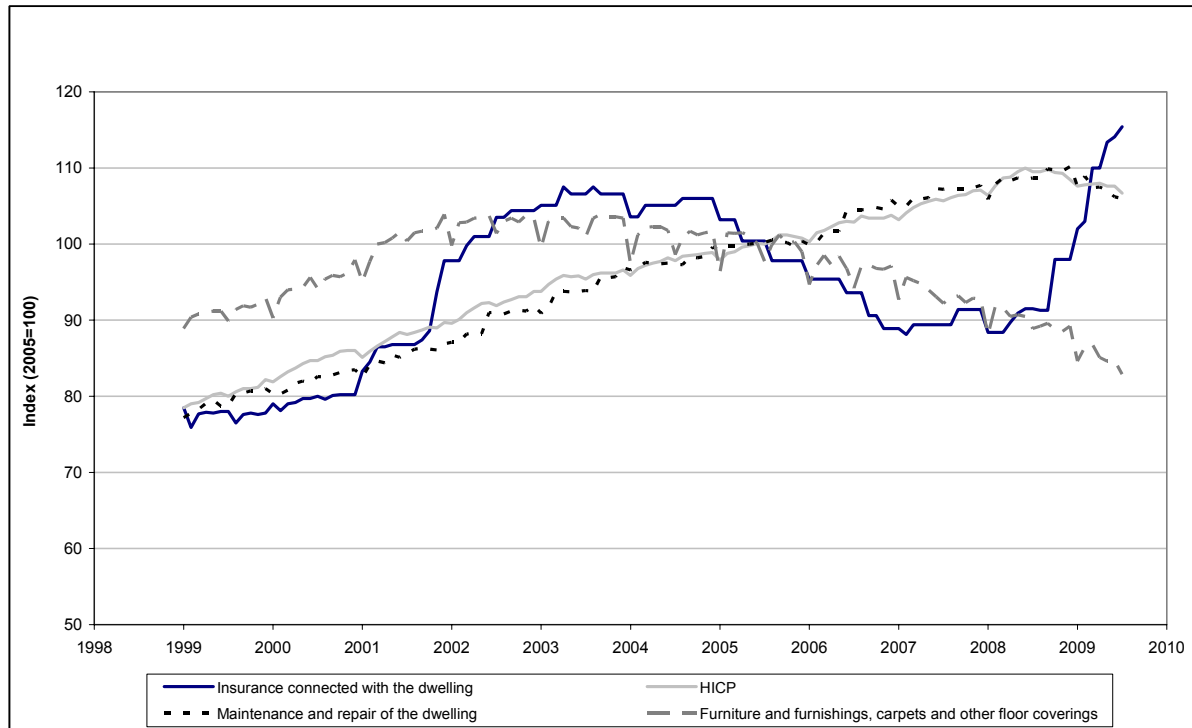
- 7.91 Ireland's home insurance market ranks as being moderately concentrated. However, the effective competitiveness of the market is likely to be enhanced by a large majority of the distribution being through independent intermediaries.

Premiums

- 7.92 The dataset on insuring the price of an average property in Ireland is somewhat erratic. Stability between 1999 and 2001 is apparently followed by rapid price inflation through to 2003, after which there is a decline through to late 2008 and then a sharp increase in premiums after that. Indeed, a consumer group highlighted that sharp appreciation in premiums had been a recent feature of the Irish market.



Figure 7.27: Evolution of the Domestic Insurance and Related Indices in Ireland, 1999-2009



Source: Eurostat

7.93 To some extent, this volatility is reflected in the aggregate data — household insurance premiums totalled €405 million in 2001 but had increased to in excess of €600 million by 2004 (Figure 7.27) implying this was in large part price rather than volume driven).

Profitability

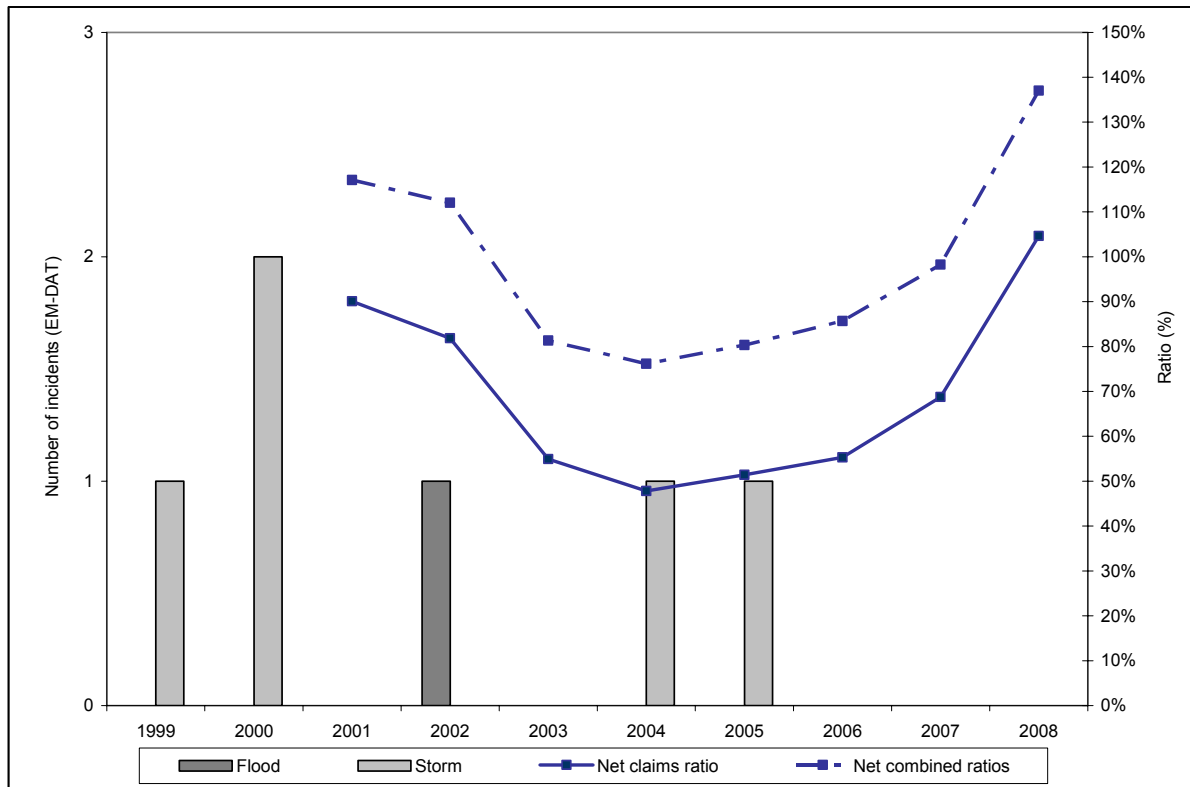
7.94 The volatility in premiums has tracked through to the measures of profitability. In 2001 the gross claims ratio was over 90 per cent and the combined ratio over 117 per cent: an unsustainable level (there is no evidence in EM-DAT or Swiss Re's reporting indicating a specific event in 2001 to have caused claims to spike upwards). However, by 2004, the combined ratio had been reduced to 76.2 per cent (the expense ratio being 28.3 per cent in that year). This coincides neatly with the increase in the premium of the average home described above.

7.95 Between 2004 and 2008 on the other hand, this trend has reversed — dramatically so in 2008. Further, aggregate household premiums have declined in this period. The price movements seem the main driver here, although meteorological damage would be expected to be an important driver too (our mystery shopping exercise indicated that cover for both is commonly included in the home insurance policies) although, again, EM-



DAT and Swiss Re do not highlight a specific incidence other than some flooding in 2008 that incurred €38 million of insured losses (but mostly focused on Northern Ireland, i.e. the UK insurance market).¹⁰⁷

Figure 7.28: Evolution of the Claims and Combined Ratios in Ireland, 2001-2008



Source: The Irish Insurance Federation, EM-DAT, EE analysis

Italy

7.96 The home insurance market in Italy is very competitive, as shown by our calculated HHI and CR5 figures. Indeed, Italy is ranked as the fifth most competitive market in the EU, and the fifth least concentrated. On the other hand, the main distribution channel for home insurance in Italy is tied or multi-tied intermediaries; direct distribution and independent intermediaries have shares of less than 10 per cent each. Due to the high share of tied intermediaries, the competitiveness of the market in reality is likely to be lower than is indicated by the market structure indices.

Premiums

7.97 Data on home insurance prices are not published as part of the HICP in Italy.

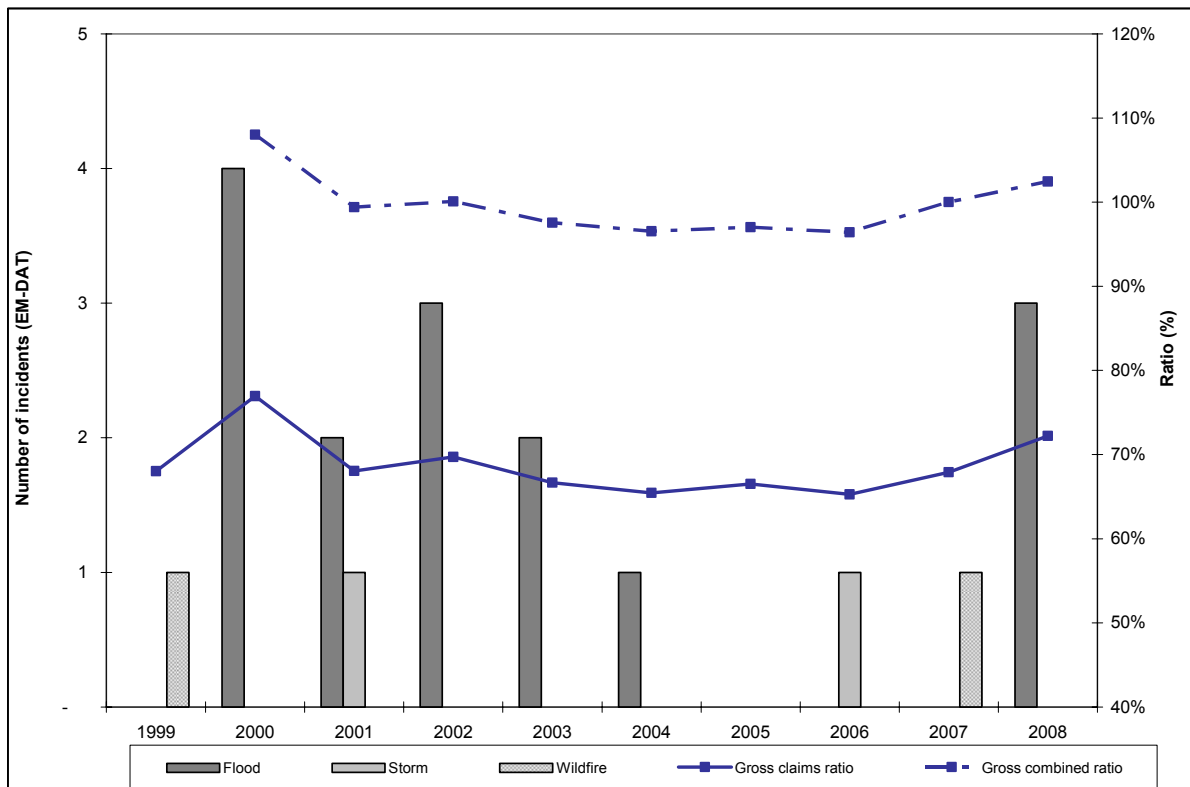
¹⁰⁷ Swiss Re Sigma 2/2009.



Profitability

7.98 Insurance coverage for natural forces includes floods, landslides, avalanches, hail, snow and frost. However, penetration is not high (between 10 and 25 per cent) for all except hail which has a penetration of between 25 and 75 per cent. Cover for storm is virtually non-existent.¹⁰⁸

Figure 7.29: Evolution of the Claims and Combined Ratios in Italy, 1999–2008



Source: Istituto per la Vigilanza sulle Assicurazioni Private e di Interesse Collettivo, EM-DAT, EE analysis

7.99 The limited volatility in the claims ratio since 1999 is in part be driven by the incidence of meteorological damage — floods in 2000, 2002 and 2003 — with the claims ratio for fire and natural forces insurance naturally moving upwards over these dates. However, the limited incidence of insurance against natural catastrophes clearly limits the effect. In particular the floods and landslides in Italy and Switzerland in 2000 resulted in €488 million in insured damage. In terms of natural disasters 2002 was a bad year for Italy, with major floods in June, August and November, and two earthquakes over September and October (the combined loss for which was €1.3 billion). However, due to the relatively low flood cover and the fact that earthquakes are not included in any insurance cover, the claims ratio for this year is less than 70 per cent.

¹⁰⁸ CEA (2007), “Reducing the social and economic impact of climate change and natural catastrophes”.



- 7.100 The small increase in the claims ratio in 2005 is partly due to the snowstorms over central Italy in January (not depicted on our graph) resulting in a €53 million insured loss (this would be sufficient in itself to increase the gross claims ratio by about 1.2 per cent).¹⁰⁹ This is reinforced by the penetration of insurance against snow and frost in Italy. On the other hand, that home insurance in Italy is low for floods and virtually non-existent against storms is reflected in the fact that the claims ratio for natural forces is not significantly higher than that for other damage during the periods of heightened storm or flood activity.
- 7.101 The net expense ratio — oscillating around 31 per cent — is in the mainstream for the EU27 in property insurance. This means that this segment has been of borderline profitability since 1999, slipping into losses into and out of loss in the period.

Latvia

- 7.102 Latvia's property insurance market is moderately concentrated. In addition, a market participant indicated that tied agents, who are usually not employees of the insurers but rather work on a commission basis, are important in Latvia and approximately 40 to 50 per cent of premiums written are due to them (although this clearly varies across companies and products). The share of the market attributed to independent brokers is around 20 per cent.

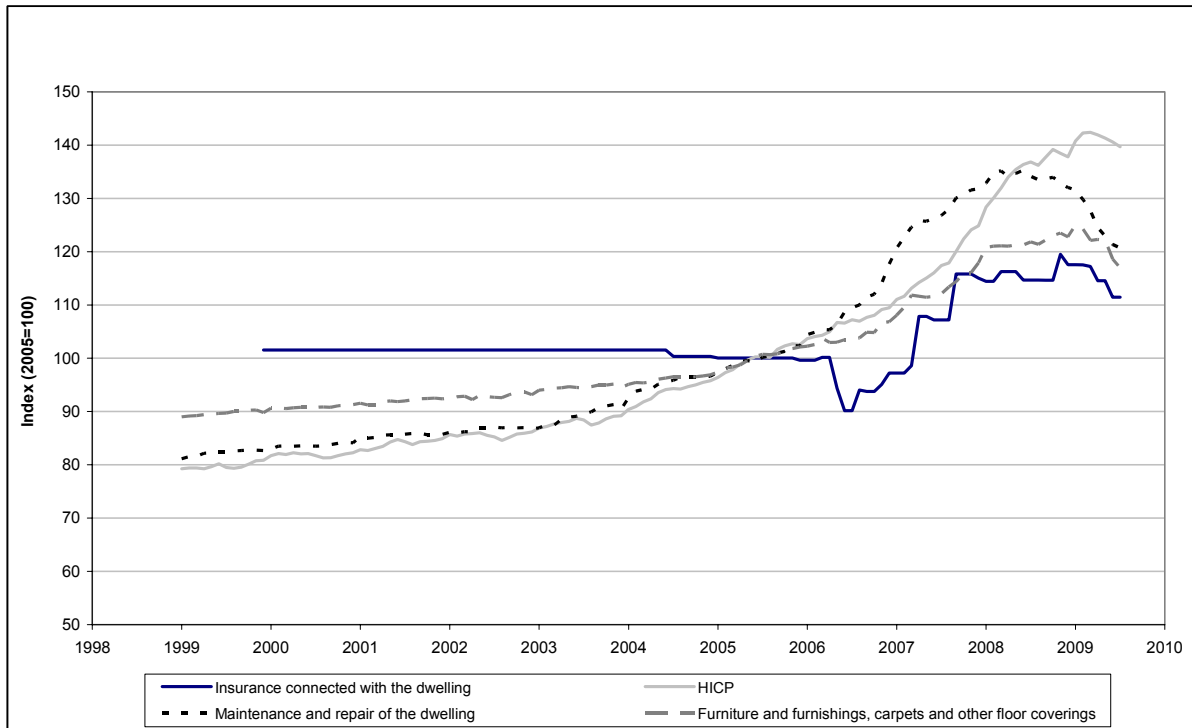
Premiums

- 7.103 Prior to accession, tariffs were set by the government — this is why the price index is flat through to 2004. After a drop in prices for a short period post-liberalisation, premiums accelerated through 2008 (though below the rate of the relevant price indices).

¹⁰⁹ Swiss Re Sigma 2/2006.



Figure 7.30: Evolution of the Domestic Insurance and Related Indices in Latvia, 1999-2009



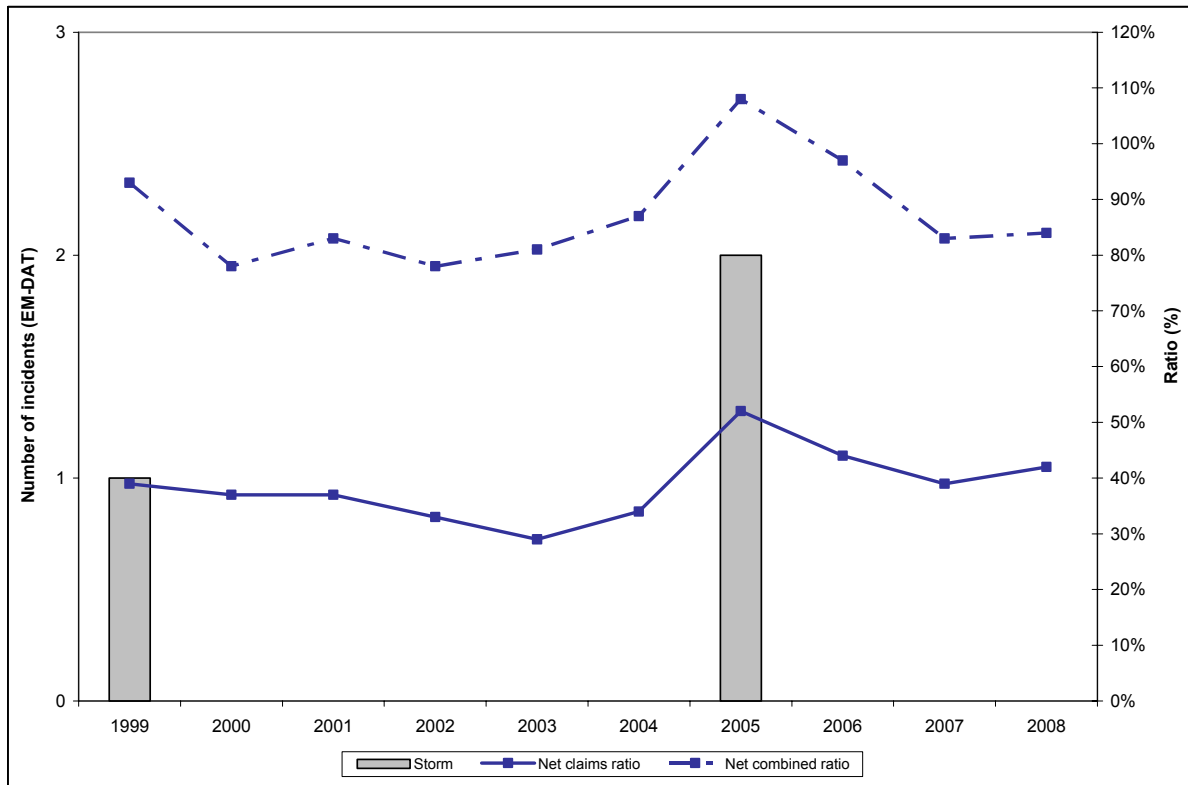
Source: Eurostat

Profitability

- 7.104 Meteorological damage, namely damage caused by winter storm Erwin, caused the spike in the net claims ratio in 2005, after which it fell quiet considerably between 2005 and 2007. (Our mystery shopping exercise which indicated that both storm cover is generally included in property insurance policies).
- 7.105 Again, the claims ratio is relatively low. From 1999 to 2008 the reported net expense ratio has moved between 30 and 32 per cent: insurers in the Latvian market have made underwriting profits in this segment in this period in all years save 2005.



Figure 7.31: Evolution of the Claims and Combined Ratios in Latvia, 1999-2008



Source: Finanšu un Kapitāla Tīrgus Komisija, EM-DAT, EE analysis

Lithuania

7.106 Lithuania ranks as one of the most highly concentrated markets in the EU. In terms of the distribution of non-life insurance, almost a third is understood to be distributed via independent intermediaries. This may to some extent, help improve the competitiveness of the market by reducing search costs for consumers. Direct only insurers are just beginning to emerge.

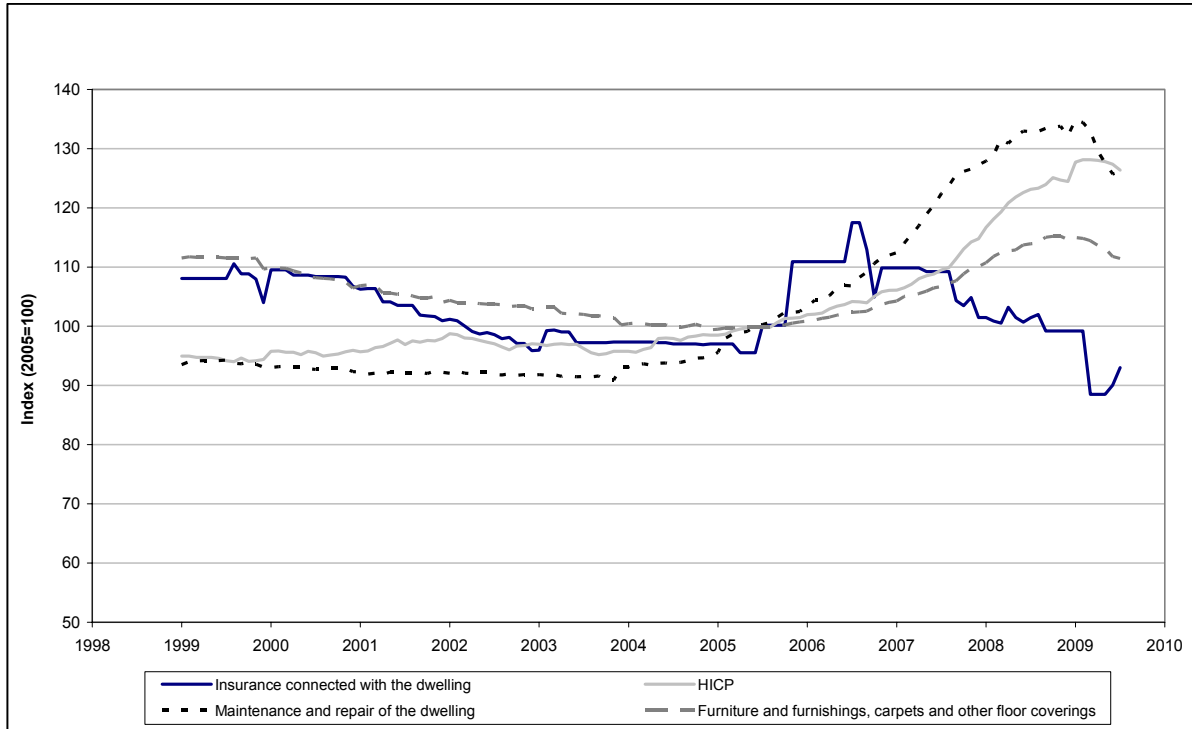
Premiums

7.107 The data presented in Figure 7.32: indicate that the changes in the cost of insuring the average home do appear to have been driven by inflation changes in furniture and furnishing costs, maintenance and repair costs, and general inflation in consumer prices until 2005. From the beginning of 2005 the changes the insurance price became significantly more erratic and has declined quite considerably between 2007 and 2009 despite rapid increases in other areas of inflation.

7.108 An interviewed market participant noted that several EU and EFTA firms had entered the market in the past few years — some of these were willing to price aggressively in order to capture market share.



Figure 7.32: Evolution of the Domestic Insurance and Related Indices in Lithuania, 1999-2009



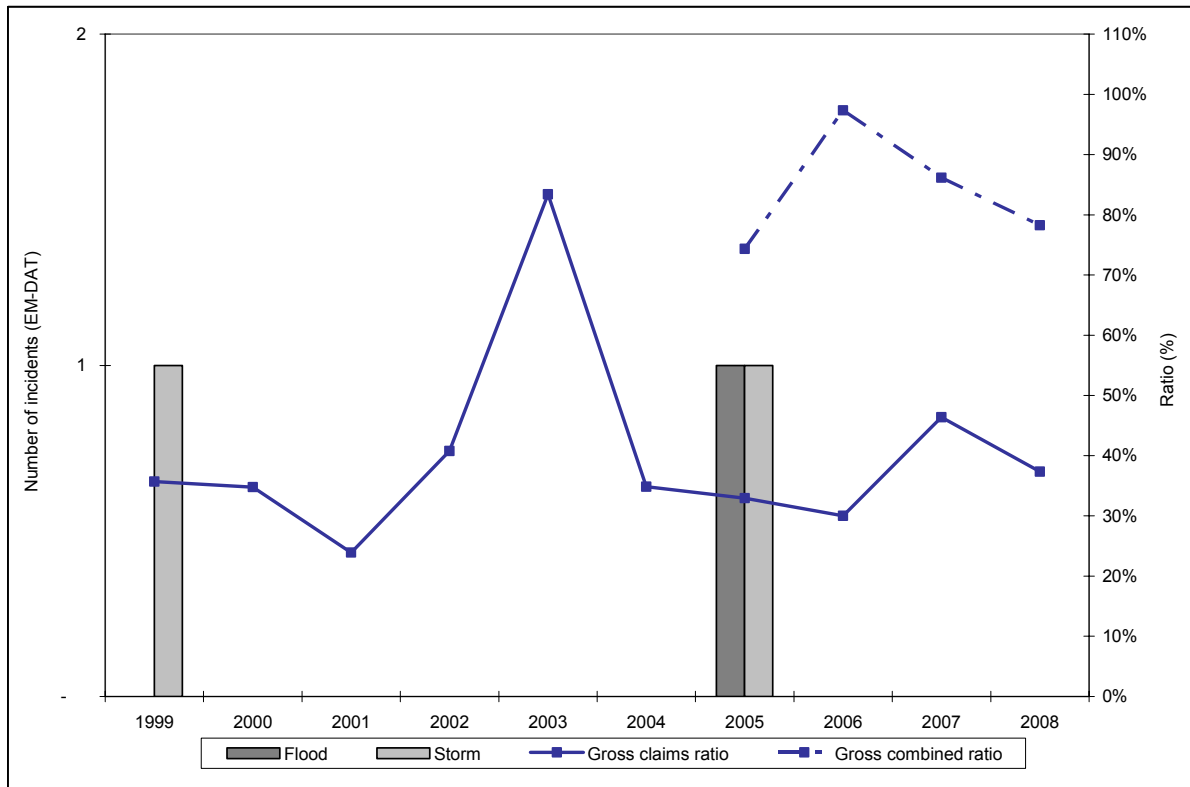
Source: Eurostat

Profitability

7.109 Other than a sharp spike upwards in 2003, the claims ratio has been relatively steady (and low). The upward drift in 2007 is coincident with the apparent price decline identified above. Swiss Re does not record a specific event affecting Lithuania in 2003.



Figure 7.33: Evolution of the Claims and Combined Ratios in Lithuania, 1999-2008



Source: Lietuvos Respublikos Draudimo priežiūros komisijos, EM-DAT, EE analysis

7.110 However, a considerable jump in the number of domestic burglaries that took place in that year (an increase of 22 per cent compared with 2002) may partially explain the increase.

7.111 The expense ratio was around 40 per cent in 2005–08 (except 2006 when it was notably higher) — with the (probable) exception of 2003 and 2006, the combined ratio was very comfortably below 100 per cent throughout.

Luxembourg

7.112 Luxembourg ranks as being highly concentrated. In large part, this is driven by the importance in the market of two Luxembourgish-owned insurers of longstanding.

7.113 There are two further key features of the market: First, the importance of exclusively tied intermediaries. In terms of private insurance, about 80–90 per cent is sold through such agents. Most of the balance is sold direct, with maybe just 1–2 per cent sold through independent brokers. In commercial markets, the direct and broker channels have a much more significant share. Luxembourg has a high density of such agents relative to the local population. Whilst the implementation of the IMD has made it more straightforward for such an agent to become an independent broker few have taken advantage of this so far (where this has happened, we were informed by a market participant that the supervisory authority monitors brokers so that no more than 40–50 per cent of business is through a particular insurer).

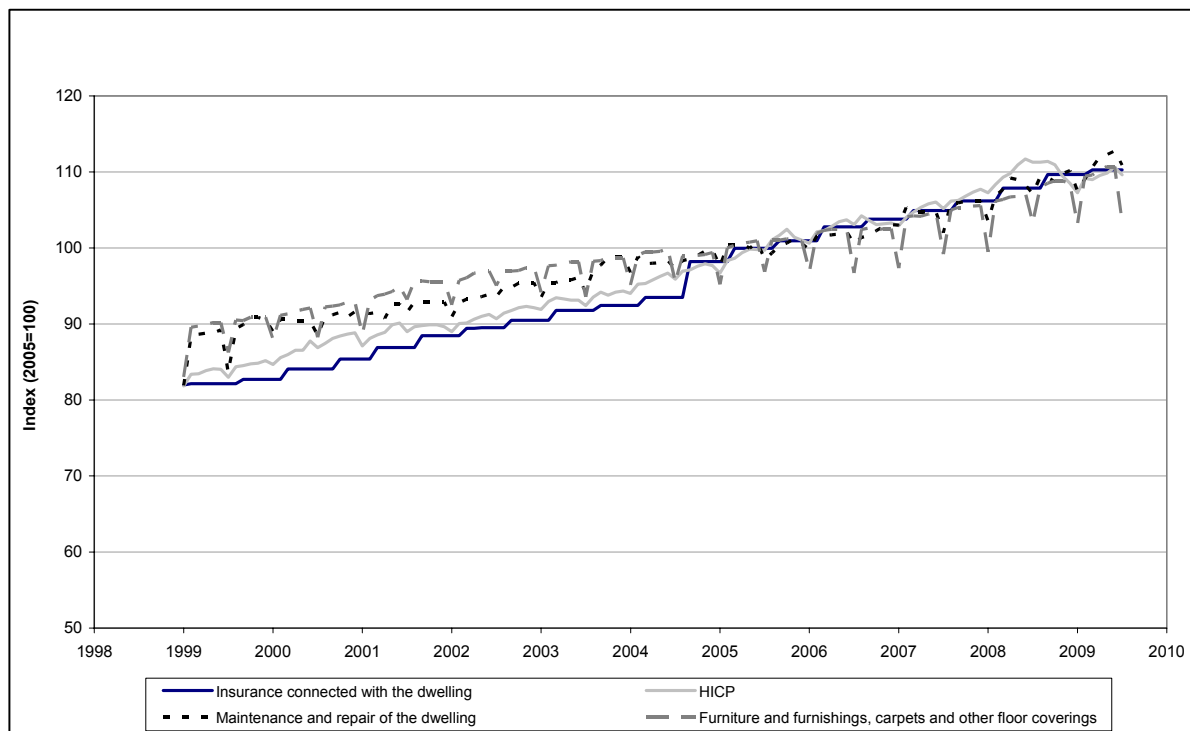


7.114 A second factor is the exceptionally low level of attrition in policies. In fire insurance, 95–97 per cent renew year-on-year. There is a requirement on the policy-holder to notify the insurer three months before contract expiry if he or she is seeking a change.

Premiums

7.115 The trend in property insurance prices in Luxembourg between 1999 and 2007 moved very closely in line with general inflation. Up to 2004, however, furniture and furnishing costs and maintenance and repair costs increased at a slower rate.

Figure 7.34: Evolution of the Domestic Insurance and Related Indices in Luxembourg, 1999-2009



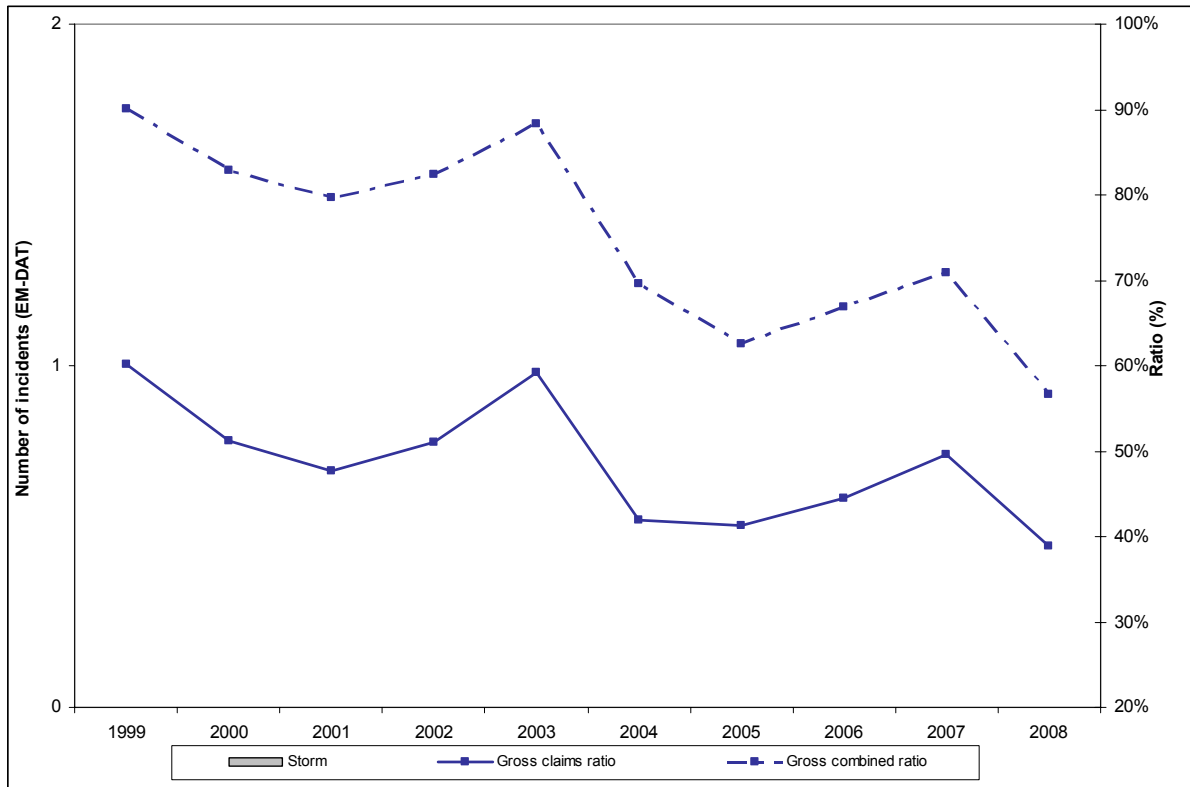
Source: Eurostat

Profitability

7.116 The (relatively minor) appreciation in premiums up to 2004 has shifted the claims ratio downwards, as one might expect. Against this secular trend, some spiking in 2002–03 and 2006–07 can be observed. In fact, neither EM-DAT nor Swiss Re records a major meteorological event affecting Luxembourg in these periods; however, bad weather remains a plausible causal agent.



Figure 7.35: Evolution of the Claims and Combined Ratios in Luxembourg, 1999-2008



Source: Commissariat aux Assurances, EM-DAT, EE analysis

7.117 That home insurance loss ratios crept up in 2006–07) was attributed by an interviewed market participant to be the effect of increases in cover (in particular add-ons, such as hotel stays), with claim frequency and average claim value also up. Indeed, the 2006 burglary rate was up by in excess of 20 per cent on the 2005 level.

7.118 The gross expense ratio has moved downwards from above 30 per cent in 1999 to below 20 per cent in 2008. This means that the gross combined ratio has moved in the range 60–90 per cent. This indicates a very high rate of profitability in this segment (particularly in the context of the experience in the same market in its neighbours, e.g. Germany).

Malta

7.119 The Maltese market is moderately concentrated (a respectable performance given its small size). Further, approximately 32 per cent of non-life cover is distributed via independent intermediaries.¹¹⁰

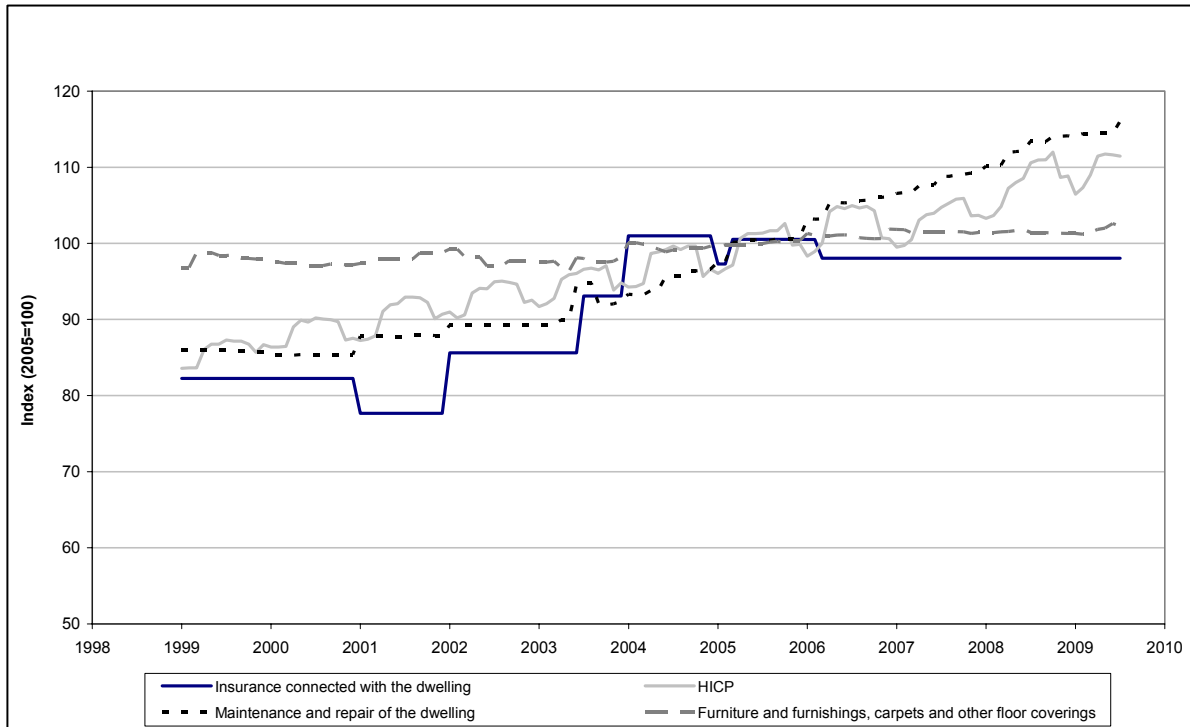
¹¹⁰ Malta Financial Services Authority (2007 Annual Report).



Premiums

7.120 In general, property insurance inflation has lagged the other measures — the main exception being a period of acceleration between 2002 and 2004.

Figure 7.36: Evolution of the Domestic Insurance and Related Indices in Malta, 1999-2009



Source: Eurostat

Profitability

7.121 Between 1999 and 2008, changes in the gross claims ratio have been highly erratic.

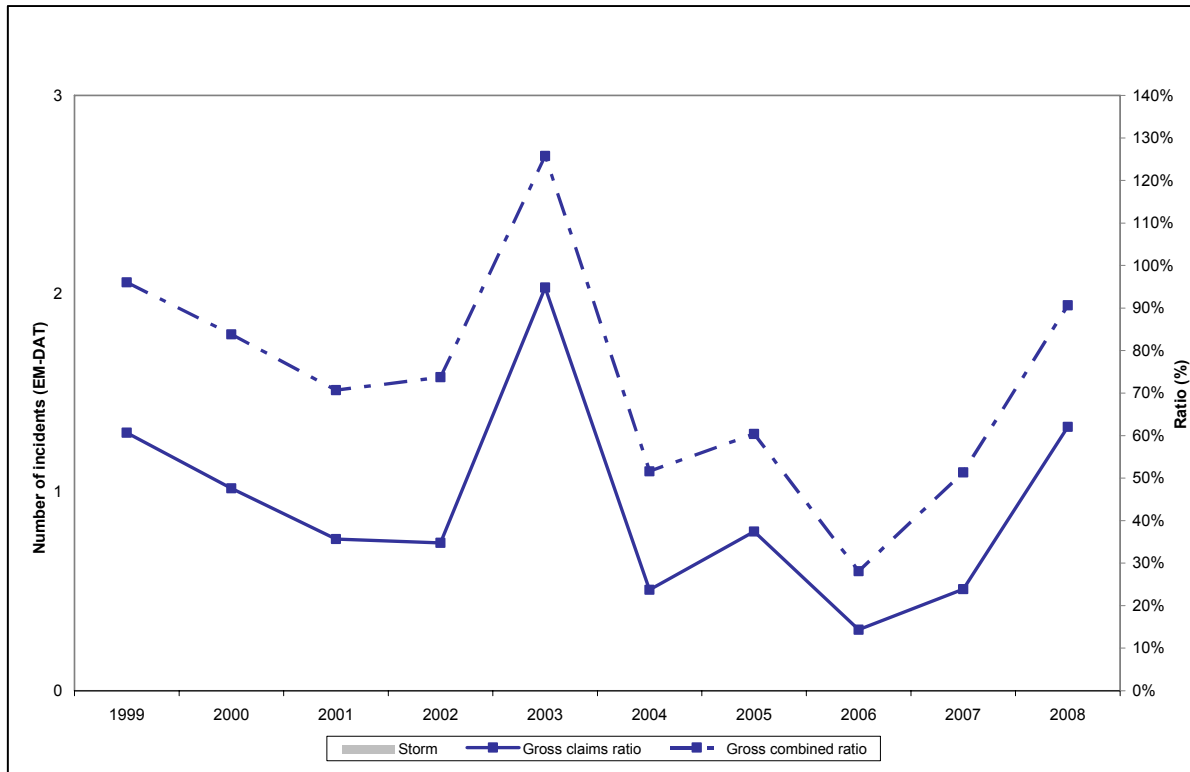
7.122 The significant spike in the net claims ratio in 2003 (i.e. at 95, compared to 24 per cent in the following year) is likely to have been driven by some exogenous factors. Provided that the results of our mystery shopping are representative, storm, flood and earthquake cover are typically included in home insurance products in Malta. Although neither Swiss Re nor EM-DAT record any notable natural catastrophes for Malta in 2003 (nor any other year) it is possible that some event contributed towards the high claims ratio experienced in 2003. The appreciation in premiums described above would have also contributed towards a decline in the claims ratio after that date.

7.123 The deterioration (from the perspective of the insurers) in the net claims ratio from 2006 may have been driven in part by the sharp increase in the number of domestic burglaries over that period. It also coincides neatly with the nominal stability in premium levels noted above (which implicitly have fallen in real terms).



7.124 With the net expense ratio comparatively stable around 30 per cent, the result is that significant losses were incurred in 2003. The increased claims ratio in 2006–08 has narrowed profitability at the underwriting level after three years of high profitability.

Figure 7.37: Evolution of the Claims and Combined Ratios in Malta, 1999-2008



Source: Malta Financial Services Authority, EM-DAT, EE analysis

Netherlands

7.125 The Netherlands ranks as one the least concentrated market in the EU. This is reinforced by the dominant distribution model in non-life insurance being through independent intermediaries (at about 55 per cent). On the other hand, customer retention is high, estimated in rural areas to be at about 95 per cent year-on-year but somewhat less in, say, Amsterdam.

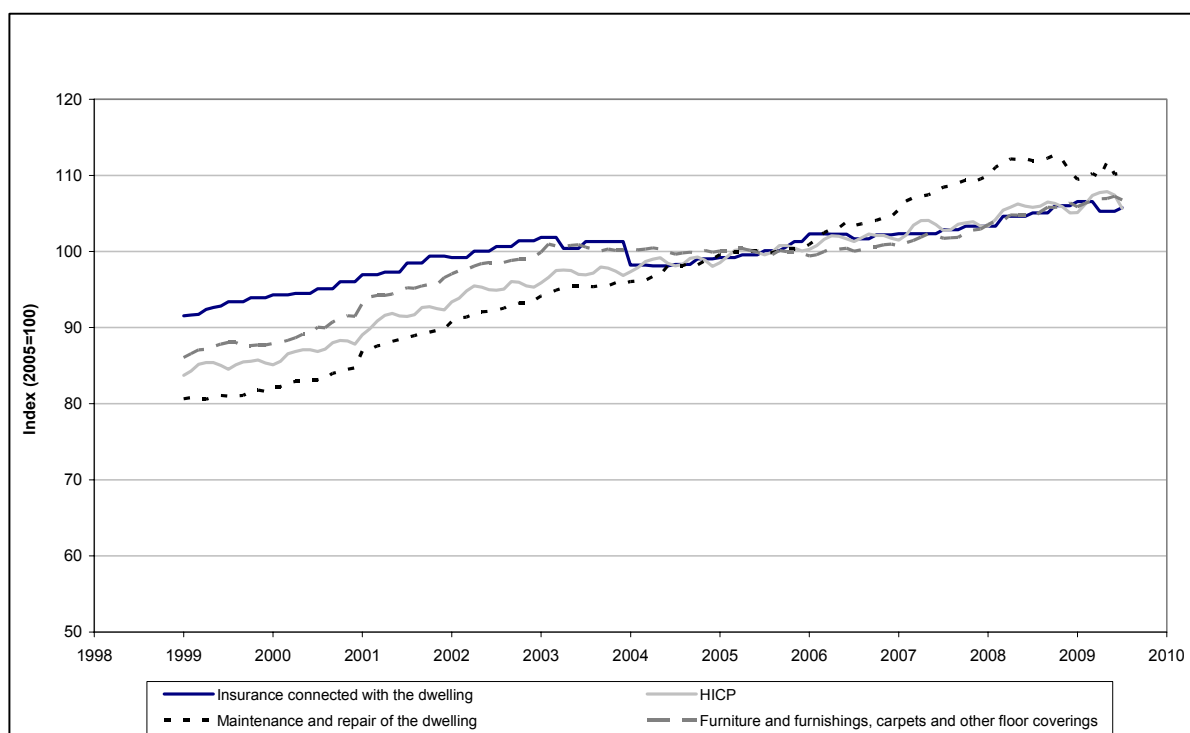
Premiums

7.126 Property insurance inflation in the Netherlands has largely lagged the trends in the other inflation measures. Data from Verbond van Verzekeraars in Nederland (VvV, the Dutch Association of Insurers) reinforce the image of recent price stability: the average cost of a structural cover policy was €196 in 2006 but had reduced to €192 in 2007 before rising again to €197 in 2008. The average contents policy was €112 in 2006, €120 in 2007 and €119 in 2008, i.e. someone with both types of cover would have seen a year-on-year increase of 1.2 per cent per annum.



7.127 A market participant characterized the market as stable, competitive and increasingly transparent (with input from De Nederlandsche Bank to encourage the latter). The recent emergence of internet-only insurers (generally part of a more traditionally established insurer rather than standalone operators) has acted to increase price competition. However, since such insurers do not provide a human interface (e.g. claims handling is solely by phone, say), the quality of the product being offered is arguably lower, and certainly different.

Figure 7.38: Evolution of the Domestic Insurance and Related Indices in the Netherlands, 1999-2009



Source: Eurostat

Profitability

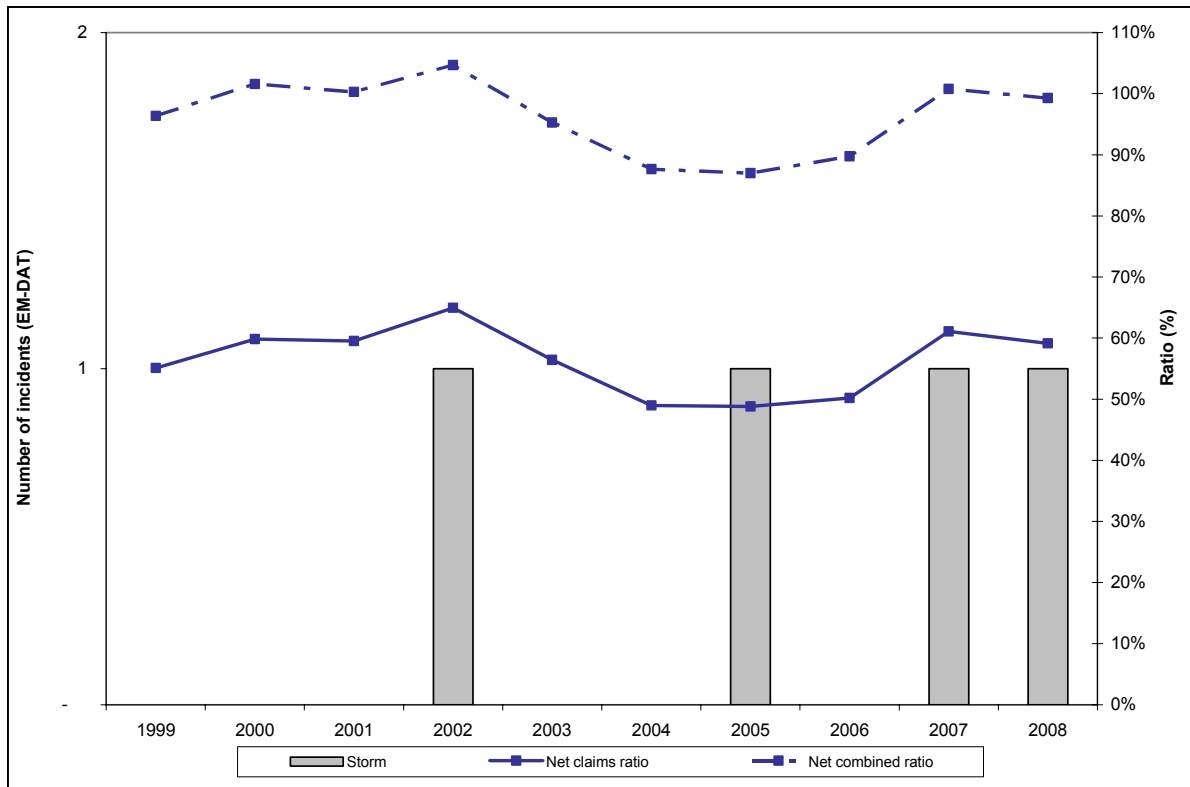
7.128 Home insurance in the Netherlands is fairly evenly split (in terms of aggregate premiums written) between contents insurance and cover against structural property risks (although there are about 1.5 times more contents policies in existence than there are structural ones).

7.129 Insurance plays a relatively limited role in providing cover against natural disasters such as storms and floods in the Netherlands — coverage for storms is optional whilst coverage for floods is not offered at all. However, the penetration of storm cover has



been estimated at over 75 per cent.¹¹¹ Indeed, the higher claims ratio recorded in 2007 is linked to winter storm Kyrill, that in 2008 to Winter Storm Emma (and before this, in 2002, Winter Storm Jennifer affected the Netherlands as well as her neighbours).

Figure 7.39: Evolution of the Claims and Combined Ratios in the Netherlands, 1999-2008



Source: De Nederlandsche Bank, EM-DAT, EE analysis

7.130 The (relatively high) net expense ratio has moved in a narrow band around 40 per cent: the net combined ratio has moved between a low of 87 per cent (2005) and a high of 105 per cent (2002).

7.131 Below this, the combined ratio for contents cover has been relatively steady at 80 per cent). The combined ratio for structural insurance is the driver of the volatility in the overall ratio for the two covers combined — this simply reflects the impact of one-off meteorological events that can take policyholders and insurers alike by surprise (in the sense that one may know that a storm is likely to happen, but not when it will occur nor with what severity). Claim frequency in contents cover has not varied significantly from 4 per cent in the recent past — this may simply reflect the fact that burglary rates have not shifted dramatically. By contrast, claims frequency in structural cover was 9.8 per cent in 2006 but 12.9 per cent in 2007 before falling back to 10.1 per cent in 2008.

¹¹¹ CEA (2007), “Reducing the social and economic impact of climate change and natural catastrophes”.



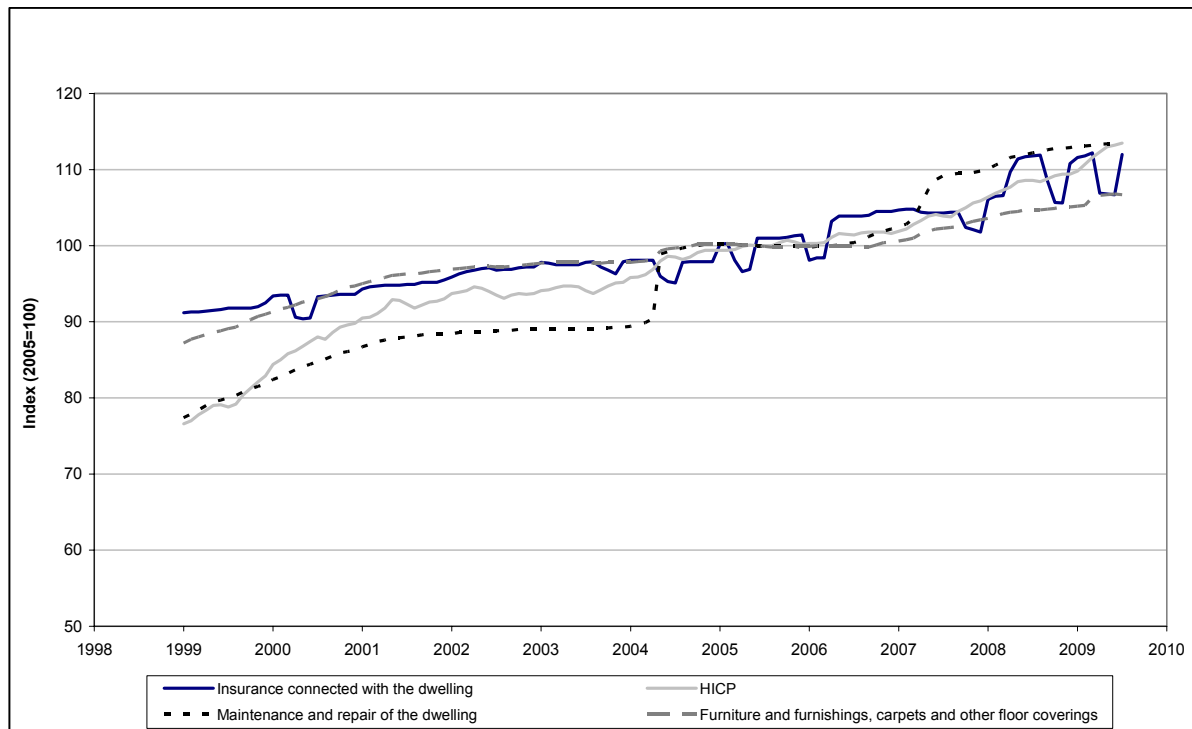
Poland

7.132 Poland's market is highly concentrated. An important factor here is the continued high market share for PZU (the former state monopoly). A further consideration is that, in terms of the distribution of non-life insurance as a whole, the majority is distributed through tied agents (55 per cent). This is likely to be higher in the retail segments.

Premiums

7.133 In broad terms, premium inflation over the period between 1999 and 2009 appears to have tracked changes in the other indices relatively closely. However, from 2003, there has been a degree of month to month volatility in premium rates (at least on an "average" property).

Figure 7.40: Evolution of the Domestic Insurance and Related Indices in Poland, 1999-2009



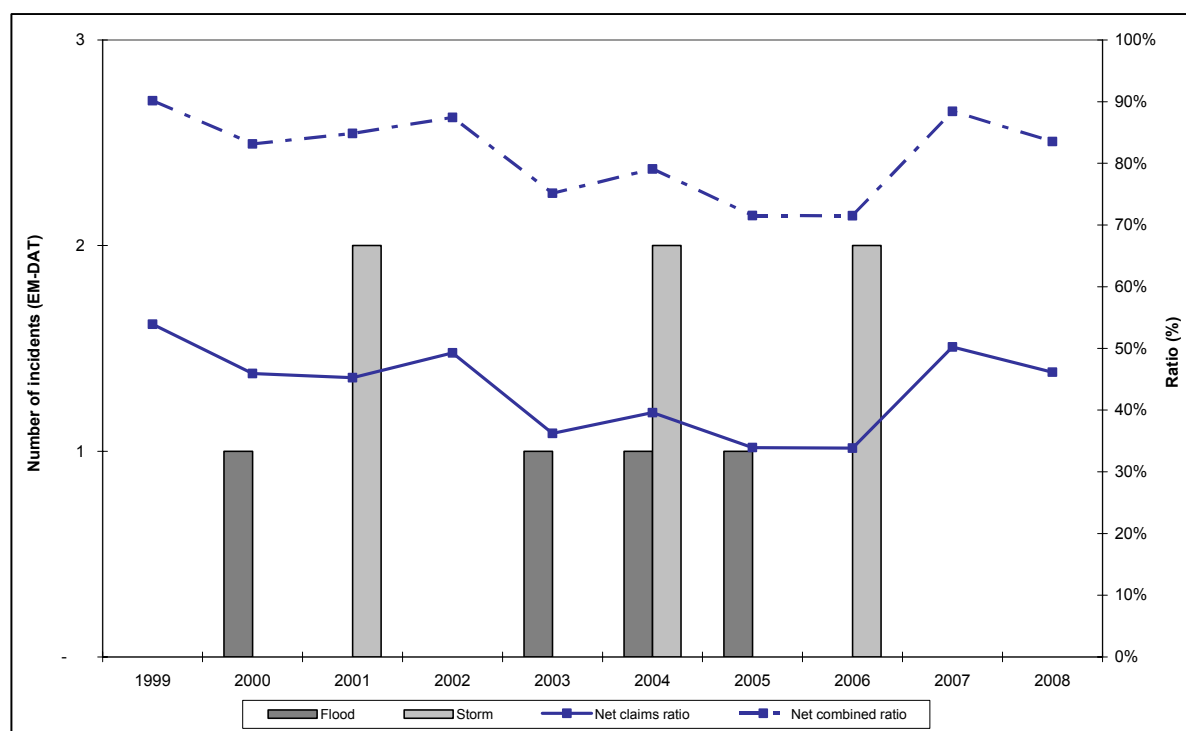
Source: Eurostat

Profitability

7.134 Although coverage for both storm and property damage is optional in Poland the penetration of both of these is above 75 per cent. Thus it is unsurprising that meteorological damage have had an impact. These include: Storm Orallie in 2004; Winter Storm Kyrill (in common with much of Northern Europe) in 2007; Winter Storms Emma and Paula in 2008 (although, together with Kyrill, have not been reflected in EM-DAT's analysis).



Figure 7.41: Evolution of the Claims and Combined Ratios in Poland, 1999-2008



Source: Komisja Nadzoru Finansowego, EM-DAT, EE analysis

7.135 However, these event-driven spikes are from a relatively low base: the net claims ratio moving in a band of between 40 per cent and 50 per cent in most years. Given that the net expense ratio has not exceeded 40 per cent, it is clear that this line of insurance has generated significant profits in the years 2003–2006, with a slightly lower level of profitability recorded at other times.

Portugal

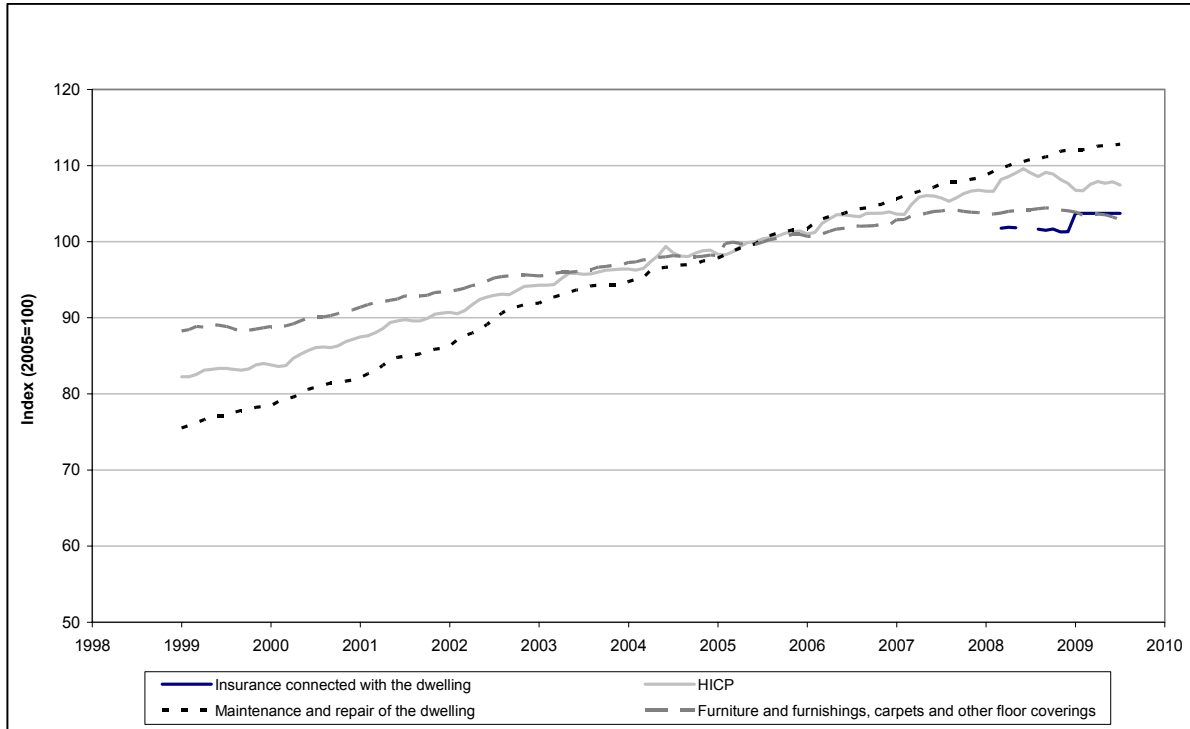
7.136 Portugal is not a concentrated market. However, operating against this, distribution is 60 per cent via tied (either single- or multi-toed) intermediaries.

Premiums

7.137 Property insurance price information is very limited for Portugal — simply implying stability in 2008 and 2009. Aggregate premiums written have increased between 2003 and 2007, albeit at low rate (with a total increase of 7.4 per cent, in nominal terms, over the whole five year period).



Figure 7.42: Evolution of the Domestic Insurance and Related Indices in Portugal, 1999-2009



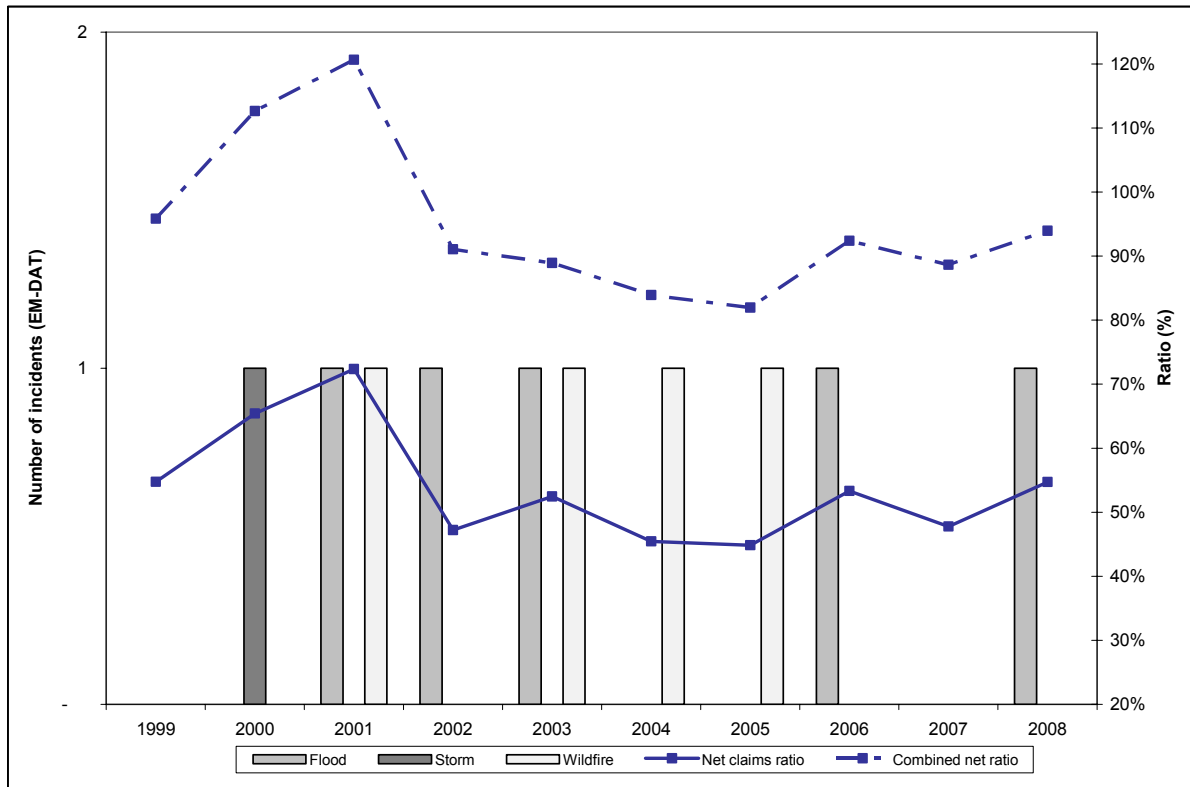
Source: Eurostat

Profitability

- 7.138 Storm and flood insurance are optional in Portugal, with the best estimate of the penetration rate being between 25 and 75 per cent for both types of cover.
- 7.139 The frequency of events does not appear to significantly drive the claims ratio which moves within a relatively narrow band between 45 and 55 per cent (i.e. a relatively low ratio), although higher claims ratios were observed in 1999–2001. Serious forest fires in 2003 will have raised the claims ratio in that year (notwithstanding this cover having relatively low penetration in Portugal — at less than 25 per cent — this cover is presumably more prevalent in rural and semi-rural areas).
- 7.140 Although the net expense ratio has crept up from 36 per cent in 2003 to 41 per cent in 2007, the net combined ratio has kept below 100 per cent since 2001.



Figure 7.43: Evolution of the Claims and Combined Ratios in Portugal, 1999-2008



Source: Instituto de Seguros de Portugal, EM-DAT, EE analysis

Romania

7.141 Romania’s property insurance market is a moderately concentrated market.

Premiums

7.142 Data on home insurance prices are not published as part of the HICP in Romania. Although aggregate premiums have increased significantly in this segment in Romania since 2002 (being five times greater in euro terms), property insurance remains a relatively small market (being just 20 per cent of the size of the total motor insurance market).

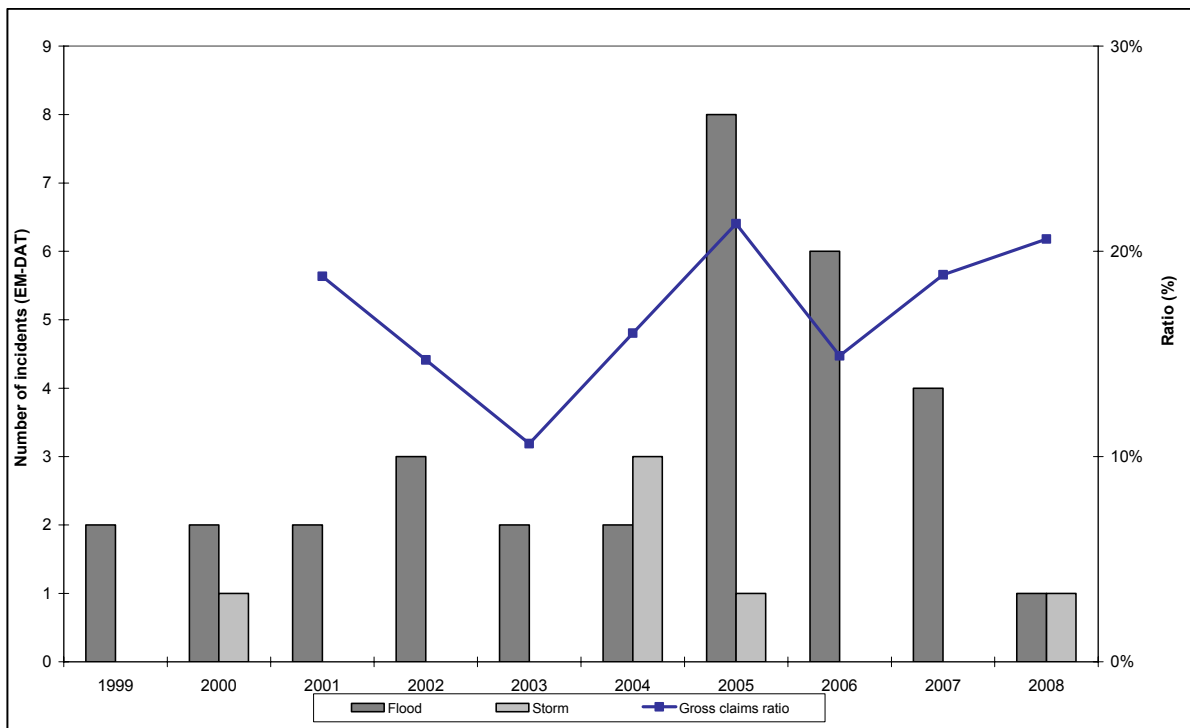
Profitability

7.143 Our mystery shopping exercise indicates that while storm coverage is typically included, flood cover generally requires an extra premium. Given the extreme prevalence of flood risk in Romania, this is perhaps unsurprising. Indeed, in 2005 the Bega and Timis rivers burst their banks — causing €700 million of damage (not necessarily insured) in Romania and Serbia. Romania was badly hit by a heat wave in 2007 — drought can significantly contribute towards structural property damage by promoting subsidence.



7.144 However, at below 30 per cent, the gross claims ratio remains low. If the gross expense ratio is taken to be at a similar level to that applicable to the non-life sector as a whole, then it clear that this insurance line has been extremely profitable in all the years 2001–08. Whilst it could be argued that reserves are being built up against a future (truly) catastrophic flood (or similar) event, it is perhaps more reasonable to fit Romania into the model of high profitability in property insurance in many of the CEE Member States.

Figure 7.44: Evolution of the Claims Ratio in Romania, 2001-2008



Source: Comisia de Supraveghere a Asigurarilor, EM-DAT, EE analysis

Slovakia

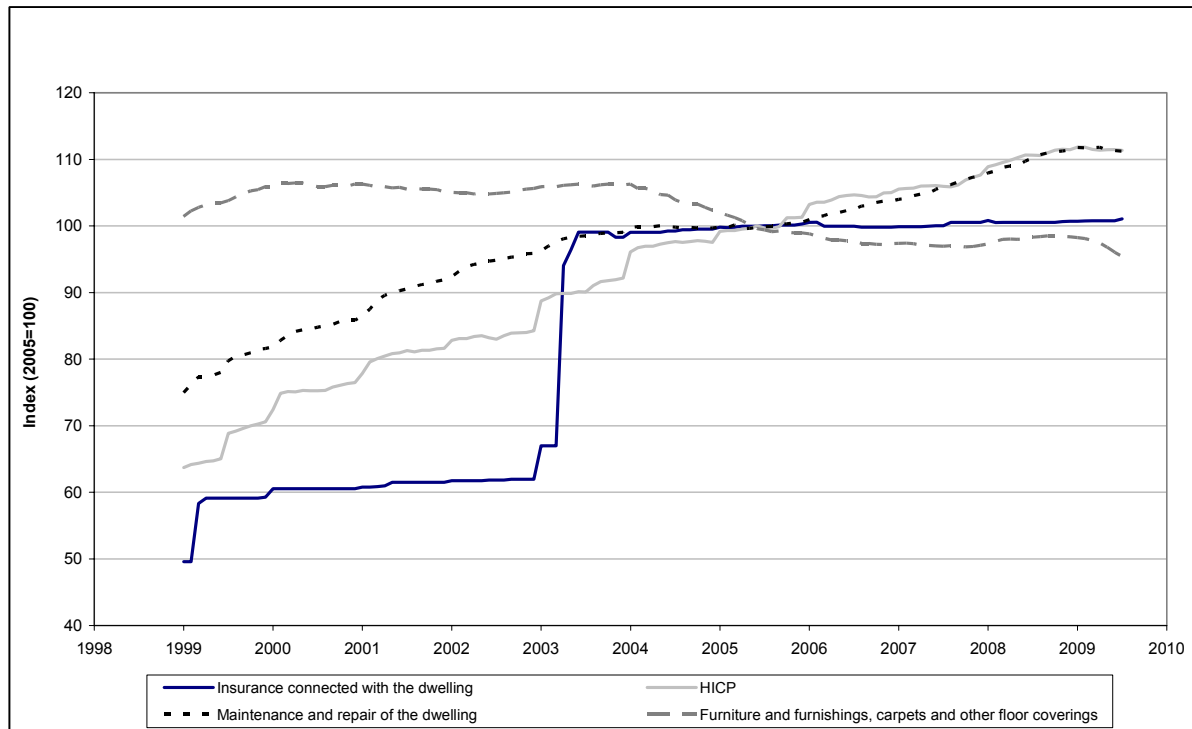
7.145 The home insurance market in Slovakia is highly concentrated, with a CR5 score of 88 per cent. On the other hand, in terms of distribution, there has been a shift from direct distribution towards independent intermediaries. Since 2001, the share of directly distributed property insurance has fallen from approximately 40 per cent to little more than 8 per cent currently, and the share of independent intermediaries has risen from approximately 6 per cent to nearly half.

Premiums

7.146 Apart from a small jump in 1999, the cost of home insurance on an average property in Slovakia rose more slowly than the other related indices until 2003, when it spiked from an index of just over 60 to 100. After 2003 the home insurance index has hardly risen at all, in contrast with consumer inflation and the cost of home repairs.



Figure 7.45: Evolution of the Domestic Insurance and Related Indices in Slovakia, 1999–2009



Source: Eurostat

7.147 Significant flooding in the Danube basin impacted upon a number of countries in 2002, including the Slovak Republic. Although insured losses were below the level recorded in the Czech Republic alone, the uplift in premiums in 2003 may be viewed in this context (i.e. an attempt by insurers to recover past losses).

Profitability

7.148 The claims ratio in Slovakia has drifted upwards since 2003, rising at above 50 per cent in 2008. Our mystery shopping exercise showed that the cheapest household insurance policy included cover for flood and storms, and therefore it is likely that the incidence of metrological damage is a significant driver of the changes in the claims ratio. Of particular importance were the floods in March and April of 2006, where torrential rain led to the overflowing of the Danube and Elbe and caused €78 million in insured damage across a number of countries. Again, in 2008, Swiss Re identifies Winter Storm Emma and river flooding as having affected the Slovak Republic.¹¹²

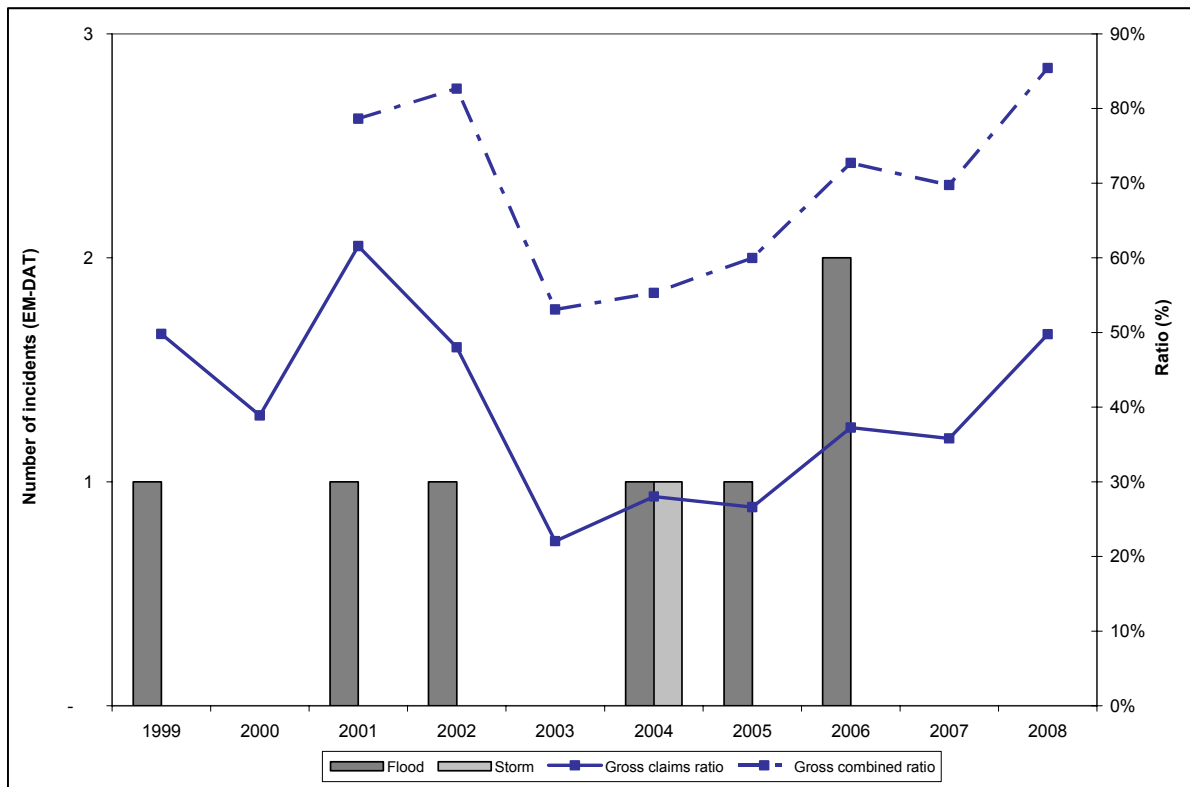
7.149 The deteriorating profitability observable in 2006–08 is presumably also influenced by the relative stability in individual premium levels.

¹¹² Swiss Re Sigma 2/2009.



7.150 The small spike in the claims ratio in 2004 may also have been driven by property burglaries, which increased from 2,642 in 2003 to 3,023 in 2004 (i.e. 14 per cent), and then went down again to 2,809 in 2005.

Figure 7.46: Evolution of the Claims and Combined Ratios in Slovakia, 1999–2008



Source: Národná banka Slovenska, EM-DAT, EE analysis

Slovenia

7.151 The home insurance market in Slovenia is very highly concentrated. Indeed, the market leader has nearly 53 per cent of the non-life market (a separate figure is not available for home insurance). The high level of concentration in Slovenia, as with many other CEE Member States, is a result of the historical state control of the market — until Slovenia's independence in 1990 Triglav was a monopoly.

7.152 Retention in home insurance is very high, at around 90 per cent. Long-term policies are a feature in the home market, and can be up to 10 years long. However, after three years a customer can break without penalty (provided 3 months notice given), as indeed they can in the event of a tariff change (there is no automatic indexation).

7.153 Distribution in home insurance is about 90 per cent through agents (the majority of whom are single tied). According to an interview with a Slovenian insurer, this high share of independent agents in the market has restricted market entry, further limiting competition. There are very few independent brokers, which are more important in commercial and

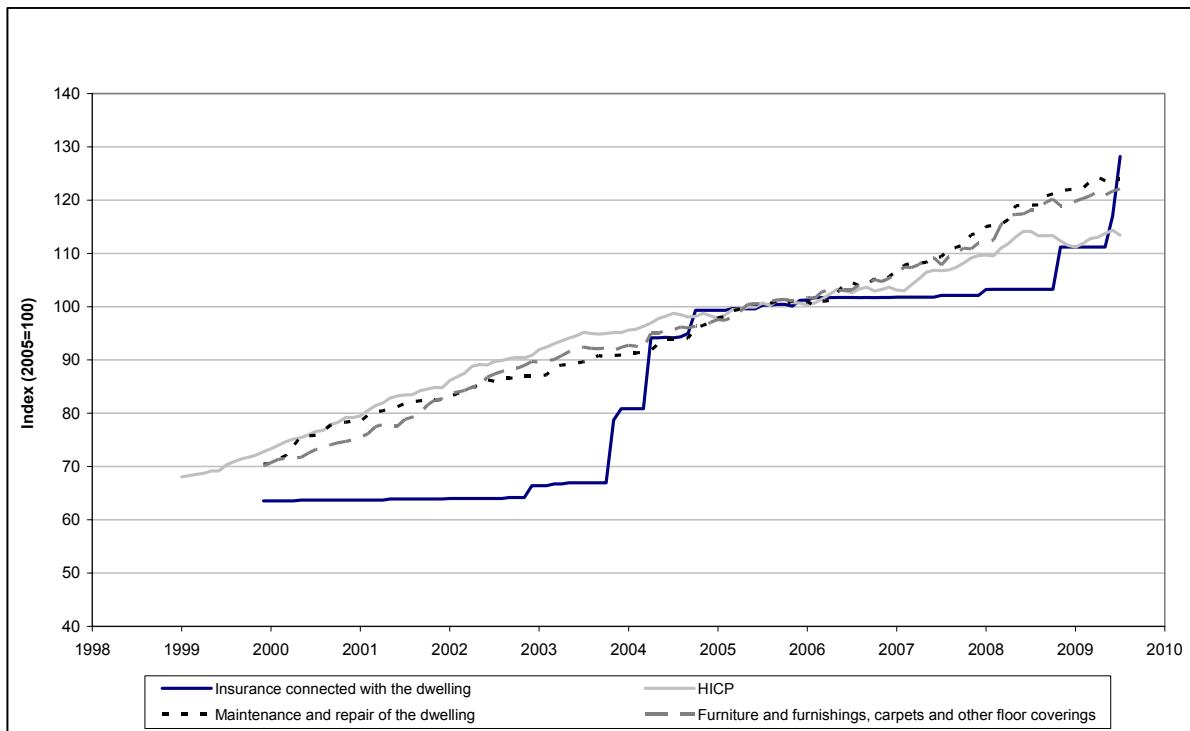


industrial property insurance. The availability of online purchase of insurance is limited and customers are still generally required to use an agent to complete a policy.

Premiums

7.154 The cost of home insurance in Slovenia remained relatively stable between early 1999 and 2003, growing at a much slower rate than the other three indices. Between 2004 and 2005, however, it grew rapidly, but slowed down again to a rate below the other indices after 2005.

Figure 7.47: Evolution of the Domestic Insurance and Related Indices in Slovenia, 1999–2009



Source: Eurostat

Profitability

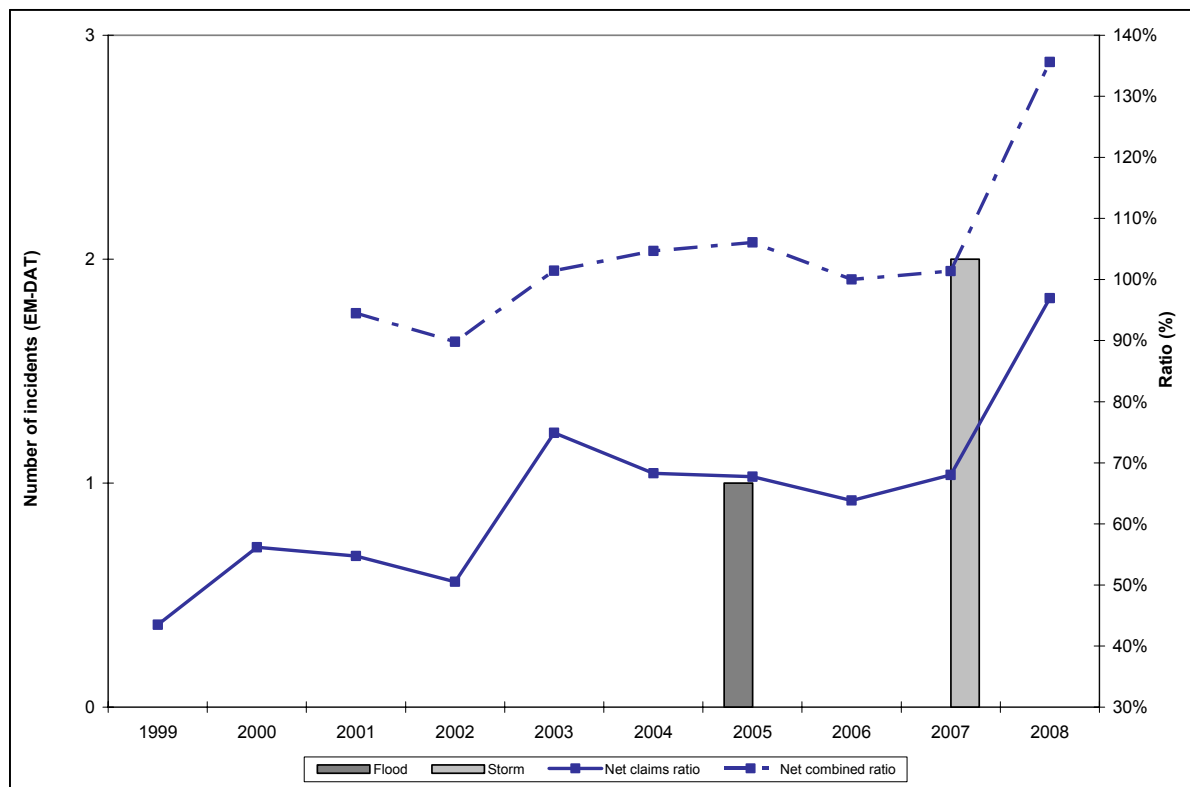
7.155 The claims ratio has remained relatively constant since 2003 with the exception of the downward spike in 2006. It is likely that the floods and storms depicted have been drivers of the upward shifts in the ratio. The impact of the storm in 2007 may have been more significant than the flood in 2005 as storms (including hail and wind damage) are covered as a matter of course in home insurance; the results of our mystery shopping exercise and evidence from a Slovenian insurer show that flood insurance needs to be taken out additionally. Storms will have a widespread effect on the property insurance market as the majority of homes (between 75 and 80 per cent) are insured. Although not depicted on the graph, according to a Slovenian insurer profitability has been negatively affected in recent years due to hailstorms.



7.156 The flooding and landslides caused by torrential rain in August 2005 affected many CEE countries and resulted in an insured loss of €1.58 billion across all of these. The storm and flooding in 2007, although less extensive in terms of total damage — the insured value is not known — at €200 million as opposed to €2.8 billion, it was entirely limited to Slovenia.¹¹³ Similarly, in 2008, two separate hail storms caused combined insured losses in Slovenia of €110 million.

7.157 Property burglaries have remained relatively stable since 2003 at an annual average of 2,406, with a slight increase to 2,750 in 2004. The majority of insured houses have contents cover as well, and this proportion is increasing albeit at a slow rate.

Figure 7.48: Evolution of the Claims and Combined Ratios in Slovenia, 1999–2008



Source: Agencija za zavarovalni Nadzor, EM-DAT, EE analysis

7.158 The net expense ratio for property is around 35–40 per cent. This means that the combined ratio has been above 100 per cent in all years since 2003. This cannot aid market entry — although the relatively high expense ratio does not indicate great administrative efficiency, even an efficient new entrant might still find it difficult to gain sufficient market share over which to spread fixed its overheads. The predominance of agents in distribution will further militate against market entry.

¹¹³ Swiss Re Sigma (2/2006), “Natural catastrophes and man-made disasters in 2005”.



Spain

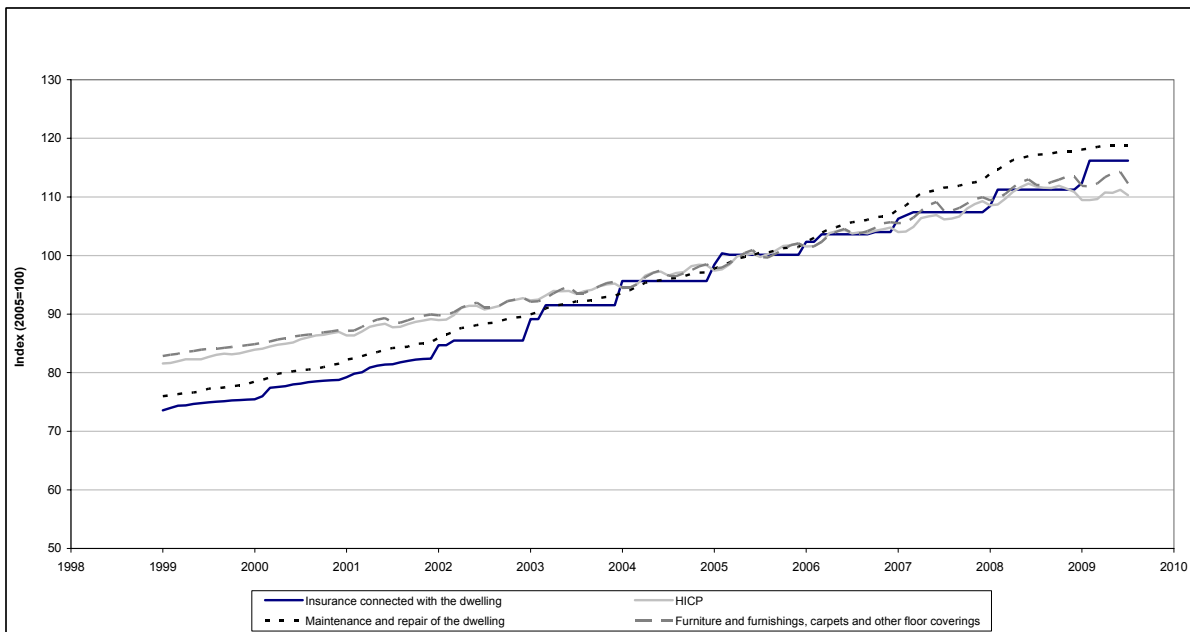
7.159 Spain is ranked as the third least concentrated market in the EU; indeed, the market leader controls less than 16 per cent of the market. However, competition may be eroded somewhat in practice by the high share that tied intermediaries have in distribution — over 40 per cent — compared to the share of approximately the 20–25 per cent held by independent intermediaries.

7.160 The prevalence of home insurance in Spain is around 70 per cent of homes listed on the property register. Customer attrition is estimated at 10–15 per cent.

Premiums

7.161 The cost of home insurance on an average property in Spain has moved in an upward trend since 1999, increasing at a faster rate than the other three related indices until 2003 and then moving broadly in line with them until the end of 2006, after which it slowed down to a lower growth rate.

Figure 7.49: Evolution of the Domestic Insurance and Related Indices in Spain, 1999–2009



Source: Eurostat

Profitability

7.162 The claims ratio for the Spanish home insurance market has fluctuated between 69 per cent and 86 per cent since 2003.

7.163 Reviewing possible causal agents behind the observed volatility in the claims ratio, we note that:

- In 1999, Spain was one of the countries hit by Winter Storm Martin.



- In 2002, Spain was affected by very severe flooding.
- In 2005 there was a widespread and persistent drought that caused severe damage to agriculture, followed by huge forest fires that caused total damage of €1.8 billion. Forest fire and subsidence cover are both provided in Spain, albeit with low penetration (less than 10 per cent) — however, it is likely that these events influenced the spike in the claims ratio in that year.
- In 2008, Spain was affected by Winter Storm Johanna.¹¹⁴

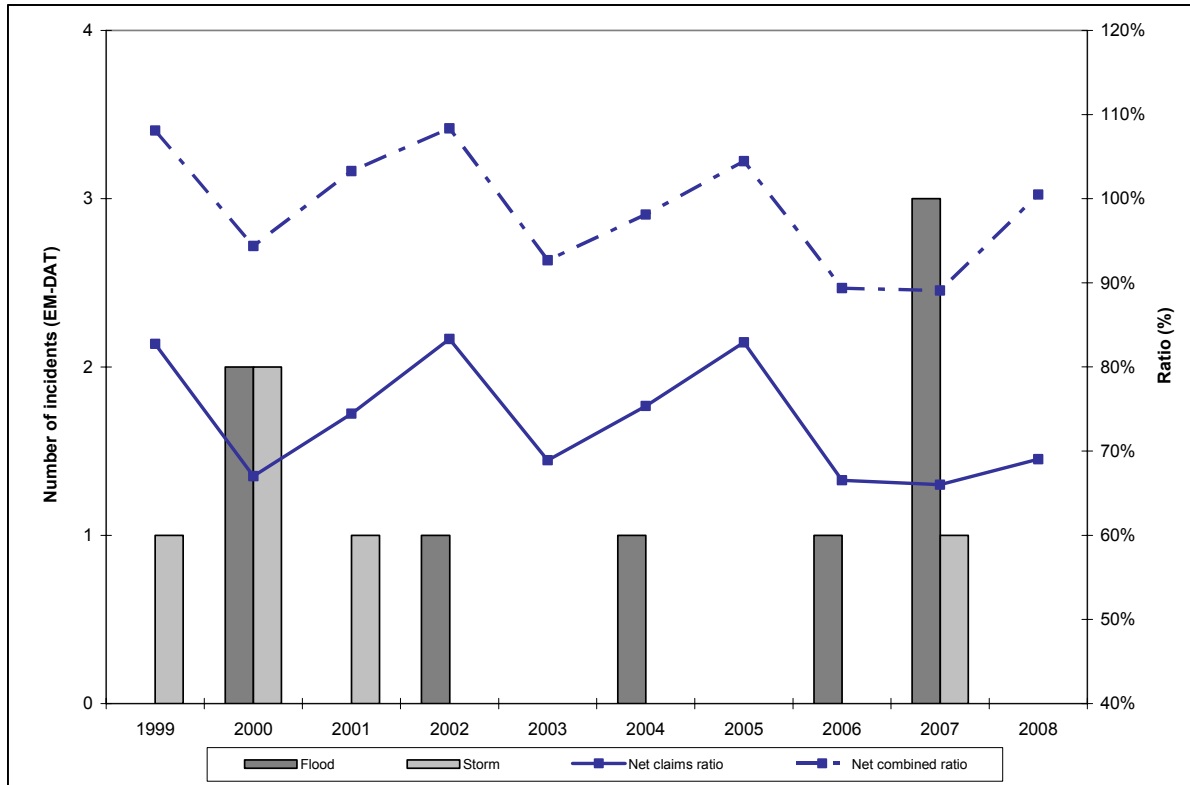
7.164 Insurers will typically lay-off part of the risk relating to meteorological events to the reinsurance sector. This would act to soften the impact on the claims ratio (and hence profitability) in the year of the event.

7.165 The net expense ratio is relatively low and has been on a declining trend since (at least) 1999, dropping from 26 per cent to 23 per cent of net premiums in 2007, before increasing to above 31 per cent in 2008. The combined ratio peaked at 108 per cent in 2002, before declining to more sustainable levels in 2006 and 2007 (but then rose again in 2008, largely due to the increase in associated expenses).

¹¹⁴ Swiss Re Sigma series, 2/2000, 2/2003, 2/2006 and 2/2009.



Figure 7.50: Evolution of the Claims and Combined Ratios in Spain, 1999–2008



Source: Dirección General de Seguros y Fondos de Pensiones, EM-DAT, EE analysis

Sweden

7.166 The home insurance market in Sweden is highly concentrated. This will be exacerbated by the nature of distribution in the market, with independent intermediaries having just 10 per cent of the business. The Swedish non-life insurance market is characterised by low consumer mobility and significant locking-in effects, due to consumers being unable to switch companies during the statutory period of agreement.

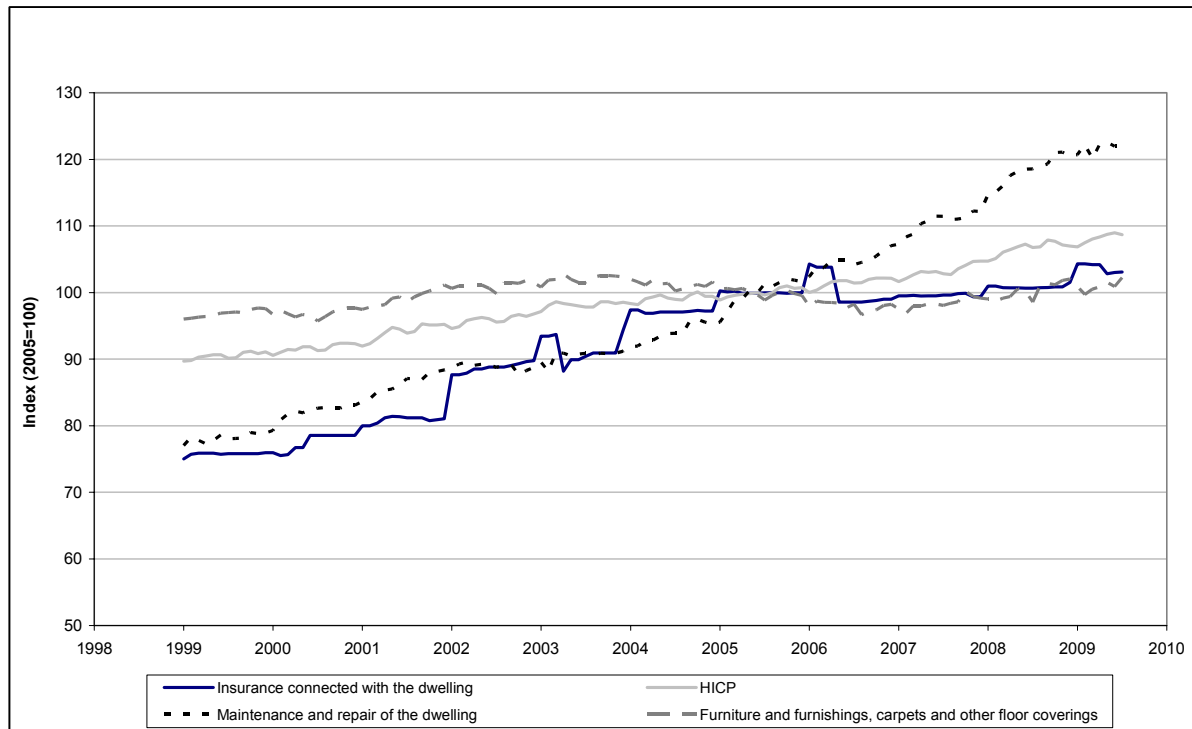
7.167 Home insurance is not mandatory but it is commonplace with over 90 per cent of households believed to have a policy.

Premiums

7.168 The cost of home insurance in Sweden moved broadly in line with the cost of home repair until 2006, after which the growth rate slowed to below the rate of general consumer inflation and the cost of home maintenance, remaining almost static from then on.



Figure 7.51: Evolution of the Domestic Insurance and Related Indices in Sweden, 1999–2009



Source: Eurostat

Profitability

7.169 Notwithstanding the limited scale of price appreciation that we have noted above, the net claims ratio in Sweden has decreased from about 80 per cent in 1999–02 to around 60 per cent in 2003–08. This reflects an increased focus by Swedish insurers on the profitability of individual product categories.

7.170 Cover for natural disasters is wide-spread in Sweden, with penetration rates above 75 per cent for insurance against storms, floods, snow, frost, drought, avalanche etc. Claims did show an increase in 2005, most likely from damage caused by the 2005 Winter Storm Erwin that caused €1.6 billion insured loss across eight counties (with Sweden being the second hardest hit). This would have had a larger effect on the claims ratio had premiums also not increased in that year. Similarly, Winter Storm Jennifer in 2002 and Winter Storms Resi and Paula in 2008 had significant impacts on Sweden.

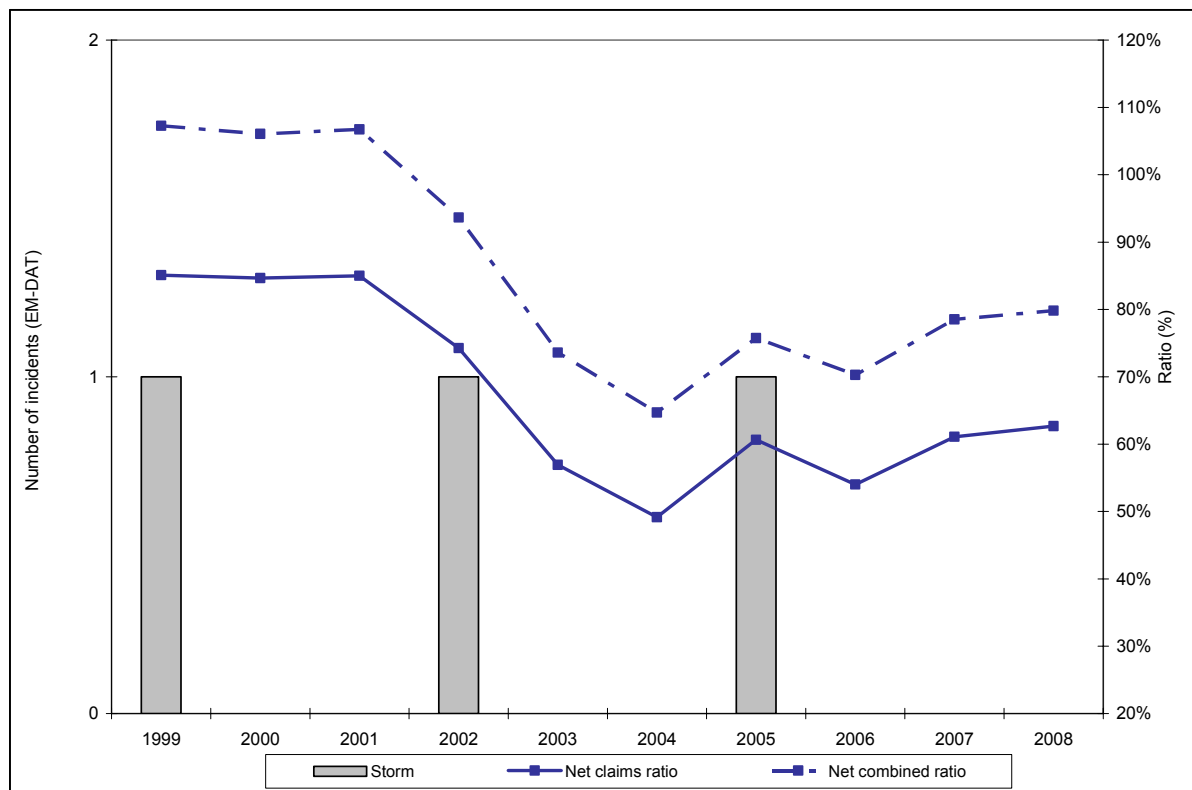
7.171 Burglaries in Sweden have been on a downward trend, peaking slightly in 2003 and then declining from 17,500 in 2004 to 15,000 in 2007. This could contribute to the explanation, to some extent, of the decrease in the claims ratio since 2003.

7.172 The net expense ratio in Sweden is on the low side — being typically below 25 per cent, although it rose about 30 per cent in 2008. Nevertheless, high profitability has been achieved in this segment since 2003 (i.e. 15–20 per cent of net premiums written).



However, given the high penetration of Natural Catastrophe cover, this cannot be simply related to relatively high level of concentration that we have — it is at least possible that the insurers are building reserves against future “catastrophic” losses.

Figure 7.52: Evolution of the Claims and Combined Ratios in Sweden, 1999–2008



Source: Finansinspektionen, EM-DAT, EE analysis

UK

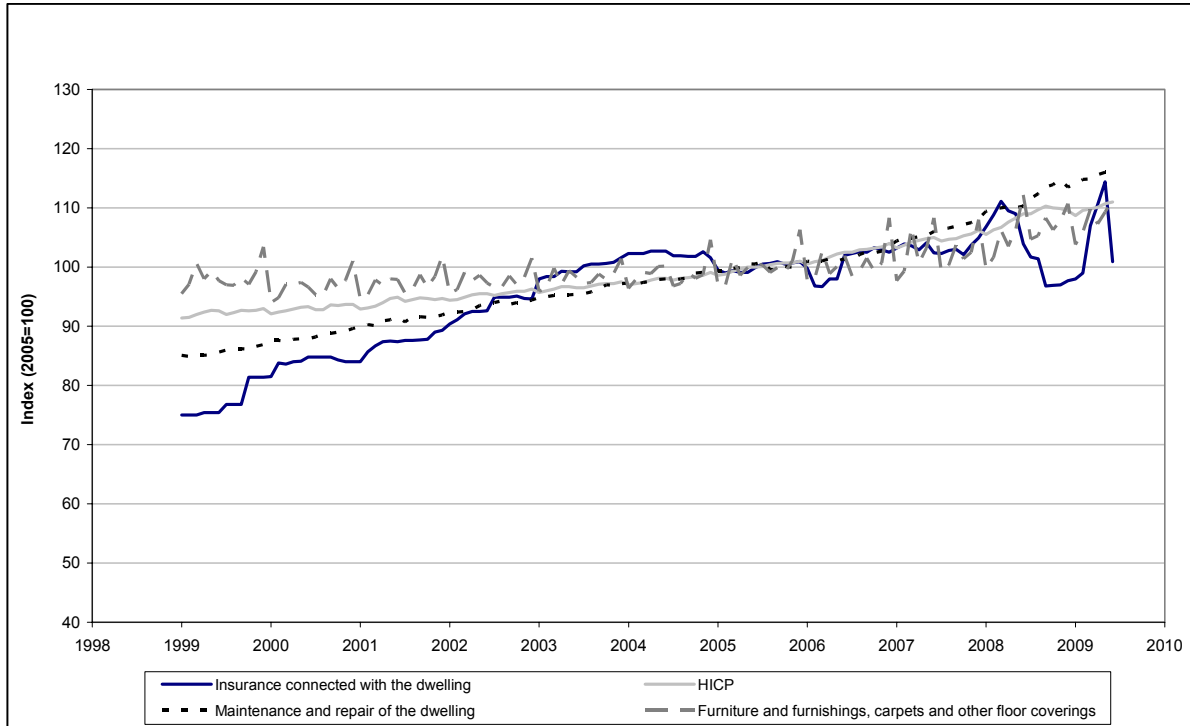
7.173 The HHI and CR5 indicate that the UK home insurance market is not unduly concentrated. Distribution is spread across a number of different channels — the most important in 2007 were independent intermediaries (36 per cent) followed by banks and building societies (29 per cent). Since 1999 there has been a significant shift away from independent intermediaries (who at that time distributed over half of domestic insurance) and tied agents towards banks and building societies and affinity partners (such as supermarkets). The latter channel had a negligible role ten years ago, but was responsible for 12 per cent in 2007.

Premiums

7.174 We present at Figure 7.53 the evolution of domestic insurance prices in the UK. After a period of relative appreciation up to 2003, there has been little development in real terms until the last eighteen months when a period of relative volatility can be observed.



Figure 7.53: Evolution of the Domestic Insurance and Related Indices in the UK, 1999–2009



Source: Eurostat

7.175 The aggregate value of household property (i.e. excluding commercial) has been on an upward secular trend since 2007. Insurance premiums have moved broadly in line with the other price indices since 2003.

Profitability

7.176 Insurance against a wide range of natural catastrophes is commonplace in the UK market — penetration is estimated at 75 per cent or above for all of storm, flood, snow, frost and hail protection.¹¹⁵ Underwriting results have been severely tested by adverse weather events — in particular, the widespread flooding in 2001–02, windstorm Kyrill in 2007 and more localised (but severe) flooding, again in 2007. The latter alone is estimated by the Association of British Insurers (ABI) to have generated 130,000 claims. Although cold weather can cause water pipe damage, a succession of mild winters through to 2007–08 has meant that these costs have been limited. Although Winter Storms Resi and Johanna affected the UK in 2008, this was to a less marked degree than Kyrill the previous year.

7.177 The impact of the most severe adverse weather events significantly outweighs the value of claims due to other reasons, such as “normal” weather-related claims, fires, burglaries

¹¹⁵ CEA (2007), “Reducing the social and economic impact of climate change and natural catastrophes”.

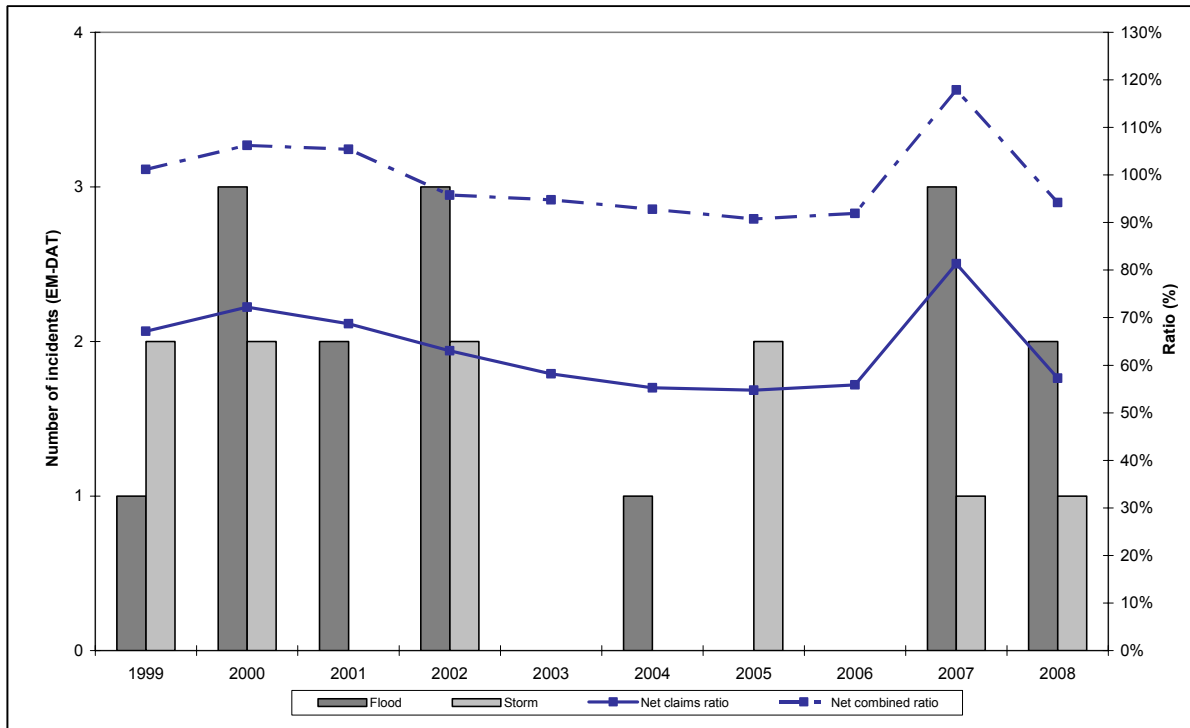


and subsidence. In this context, the upward spike in the claims ratio in 2007 is unsurprising.

- 7.178 The volume of burglaries in the UK has dropped significantly since 1998 when over 500,000 were reported to just under 320,000 reported burglaries in 2006. This is reflected in the average annual claims value relating to burglaries, which even nominal terms is well below the levels of the late 1990s. It remains the second most significant source of household insurance claims after the weather.
- 7.179 Although approximately 60 per cent of the property insurance market in the UK relates to domestic rather than commercial policies, fires are a significant cost in commercial business (both in terms of the fire damage itself, and also in terms of the associated business interruption cost).
- 7.180 Another source of significant claims in the UK is subsidence leading to structural damage. The average claim cost is about £5,000 (i.e. €5,550). Although dependent on a number of variables, a dry and hot summer is a significant contributor. Again, recent weather patterns have reduced the impact of this.
- 7.181 Throughout the period 1999–2008, the expenses ratio for domestic household insurance has been within a few percentage points around 35 per cent. This means that household insurance generated an underwriting loss in 2007 (i.e. the combined ratio exceeded 100 per cent) but otherwise was consistently, albeit not highly, profitable in the period 2002–08. To illustrate the margins within which the insurance industry is operating in the UK, the average combined ratio in the period 1999–2008 was 99.1 per cent.



Figure 7.54: Evolution of the Claims and Combined Ratios in the UK, 1999–2008



Source: ABI, EM-DAT, EE analysis

The USA Selected States — State by State

Connecticut

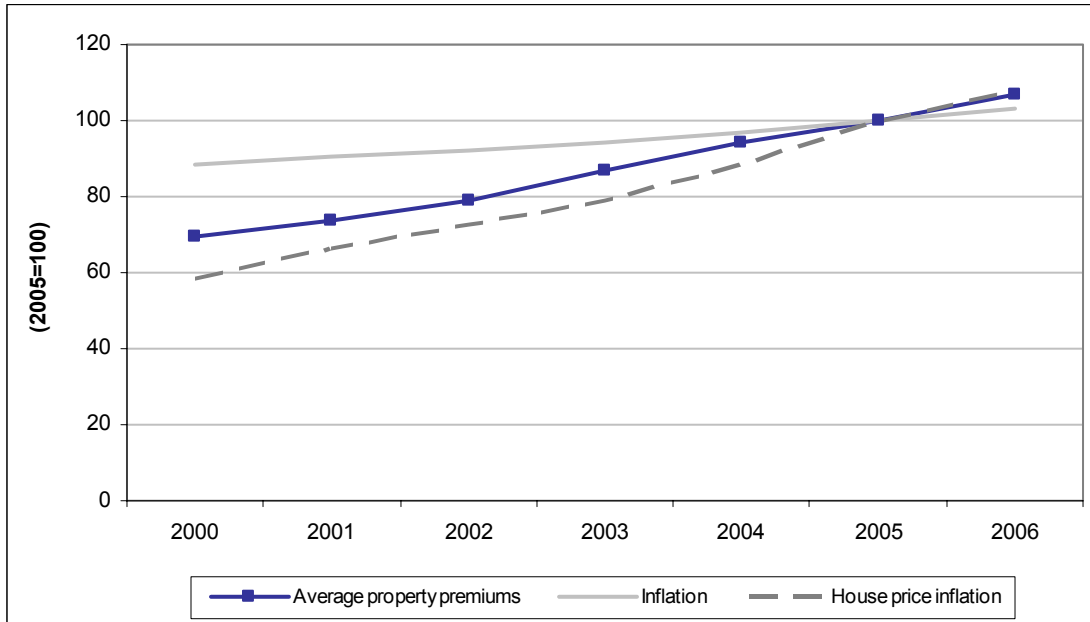
7.182 Our market share data indicate that the home insurance market in Connecticut is not unduly concentrated.

Premiums

7.183 The data presented in Figure 7.55 show that not only have average premiums increased over the entire period between 2000 and 2005 (with the rate of increase becoming greater from 2002), but that the increases appear to have moved much more in line with house price inflation over the period, outpacing CPI.



Figure 7.55: Evolution of Property Premiums in Connecticut, 2000-2006



Source: NAIC

7.184 This linkage between the average premium and house price inflation, although indirect in that the rebuild value of a property should be more directly relevant, has been a relatively important driving factor underlying the change in average premiums over the period. Indeed, property value was found to be a highly significant variable in our econometric analysis of the mystery shopping exercise that we conducted.

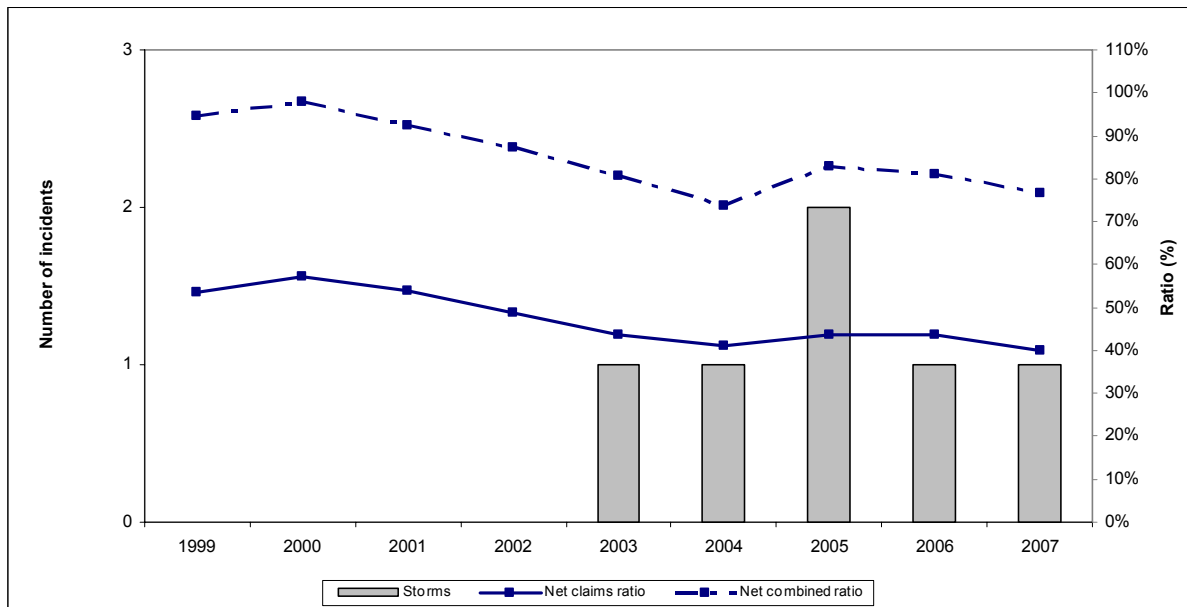
Premiums

7.185 There has been a significant reduction in burglaries and property crime in total over the period 2000–07, falling by 13 and 15 per cent respectively. This would act to reduce claim frequency (and all else being equal, reduce the claims ratio).

7.186 The average annual growth in premiums was 7.4 per cent between 2000 and 2006 and this, coupled to the reduction in burglary, has driven the net claims ratio downwards.



Figure 7.56: Evolution of the Claims and Combined Ratios in Connecticut, 1999-2007



Source: NAIC, FEMA, EE analysis

7.187 Indeed the net claims ratio, as illustrated in Figure 7.56 above, appears to have fallen significantly between the years 2000 to 2004, before stabilising in 2005. On the face of it, this trend does not appear to be driven significantly by the frequency of storms as classified by the Federal Emergency Management Agency (FEMA) in Connecticut. However, the uplift in the net claim ratio in 2005 is likely to be linked to the additional severe storm recorded in that year.

7.188 There has been a secular gentle downward trend in the expense ratio on homeowner multi-peril to about 36 per cent in 2007.¹¹⁶ This means that this insurance product has consistently generated significant, and growing, underwriting profits in Connecticut — being about 23.5 per cent of premiums earned in 2007.

Maine

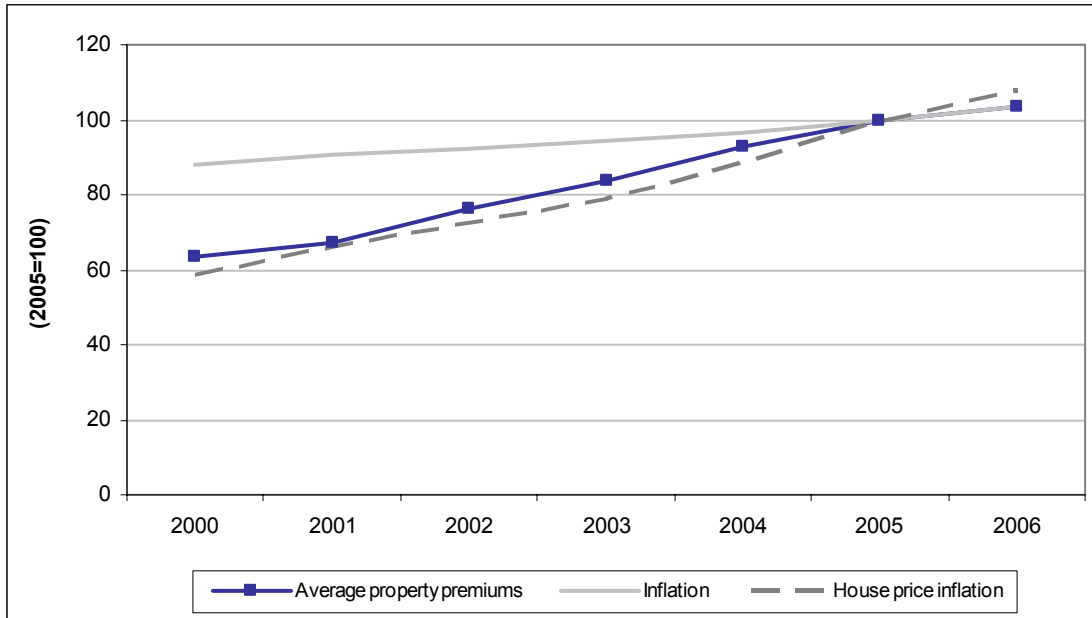
Premiums

7.189 The average premium has increased over the period, and has followed changes in house price inflation far more closely than CPI.

¹¹⁶ This includes expenses relating to loss adjustment, sales and administration and, in addition, licence fees and policy dividends. Looking at the expenses in isolation would result in a “pure” expense ratio of about 33 per cent.



Figure 7.57: Evolution of Property Premiums in Maine, 2000-2006



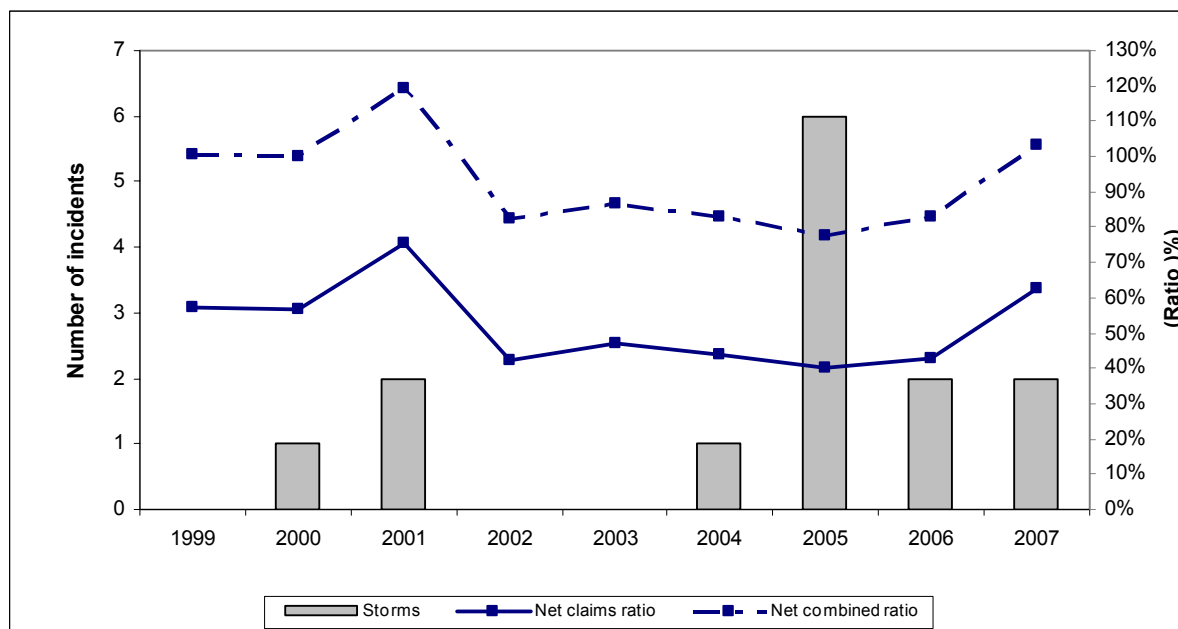
Source: NAIC

Profitability

7.190 Burglary and property crime in Maine have been stable over the period 2000–2007. There was a spike in the net claims ratio in 2001 (i.e. increasing due to a 29 per cent year-on-year increase in the average claim per policy) which may have been driven, at least in part, by the storms that occurred in this year (see below).



Figure 7.58: Evolution of the Claims and Combined Ratios in Maine, 1999-2007



Source: NAIC, FEMA, EE analysis

7.191 The expense ratio in Maine has been around 40 per cent with underwriting losses recorded in 2000 and 2001, and again in 2007.

7.192 Over the entire period the average premium increased by an aggregate of 63 per cent. To some extent, this may be viewed as re-balancing after the loss-making years of 2000 and 2001 through the achievement of high profitability in the period 2002–06.

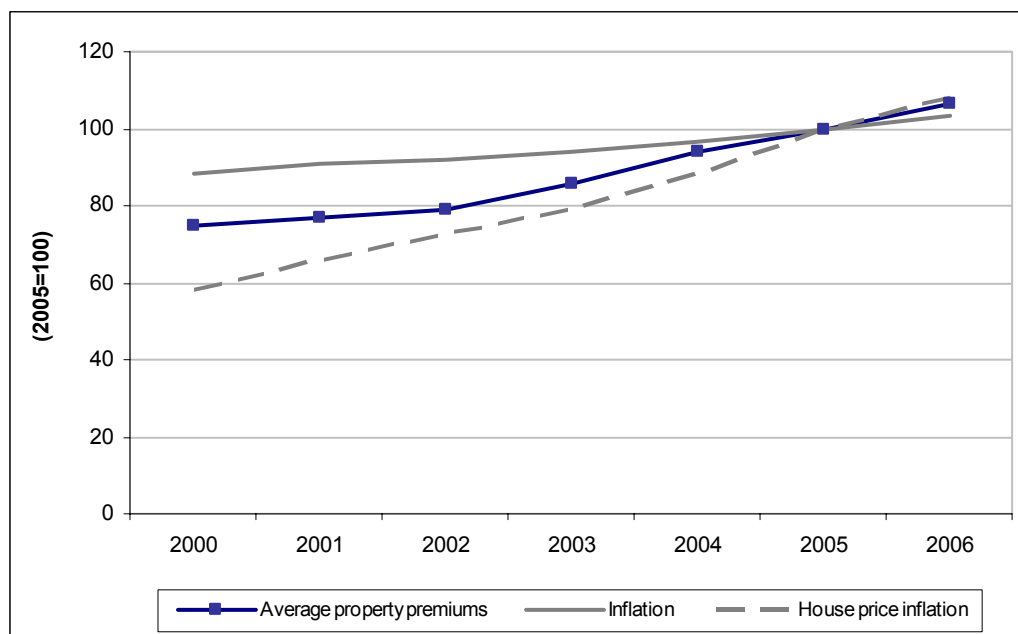
New Jersey

Premiums

7.193 The growth in average property premiums as illustrated below increased consistently over the period and appears to have done so in line with house price inflation changes and to a lesser extent CPI.



Figure 7.59: Evolution of Property Premiums in New Jersey, 2000-2006



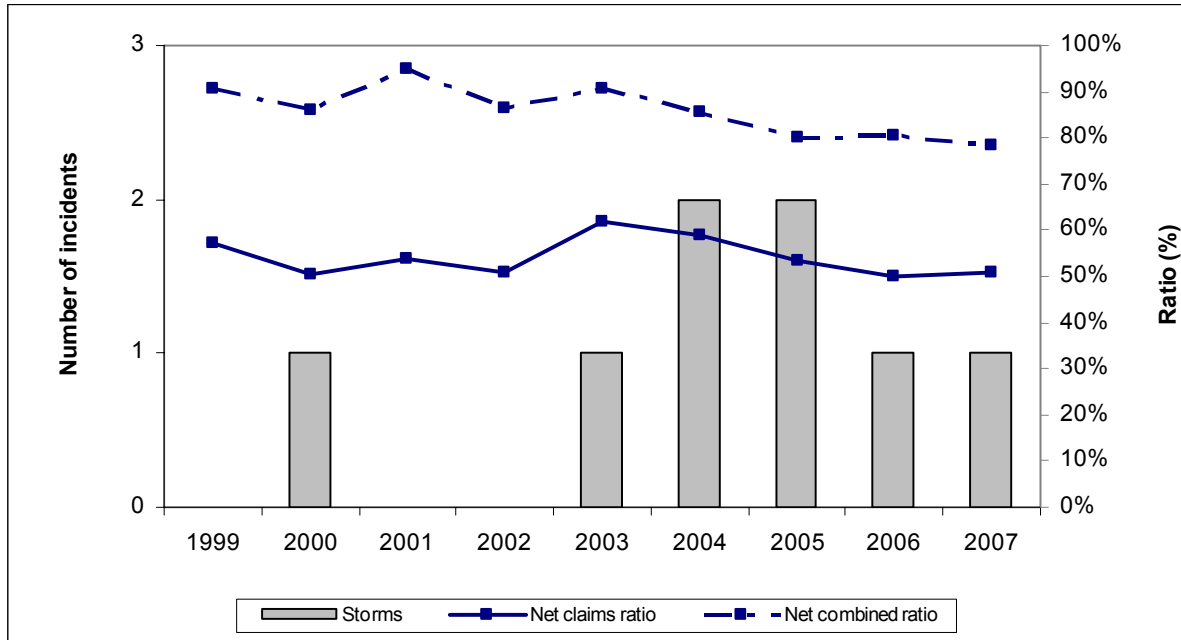
Source: NAIC

Profitability

- 7.194 Average claims per policy were significantly higher in 2003 to 2006 compared to the level prevailing in 2000–2002 (in fact, on average, 35 per cent higher in nominal dollar terms). This is reasonably correlated to the increased storm rate in these years (an average claim dataset is not available as yet for 2007) and so the incidence of storms has been a relatively important driving force of the volatility in the net claims ratio.
- 7.195 At the same time the frequency of claims due to burglaries and property crimes is likely to have fallen — reported crimes in these categories reducing by 10 and 14 per cent respectively.



Figure 7.60: Evolution of the Claims and Combined Ratios in New Jersey, 1999-2007



Source: NAIC, FEMA, EE analysis

7.196 The expense ratio has maintained close to 38 per cent throughout. This means that although a small underwriting loss was recorded in 2003, home insurance in New Jersey has trended towards a high degree of underwriting profitability.

New York

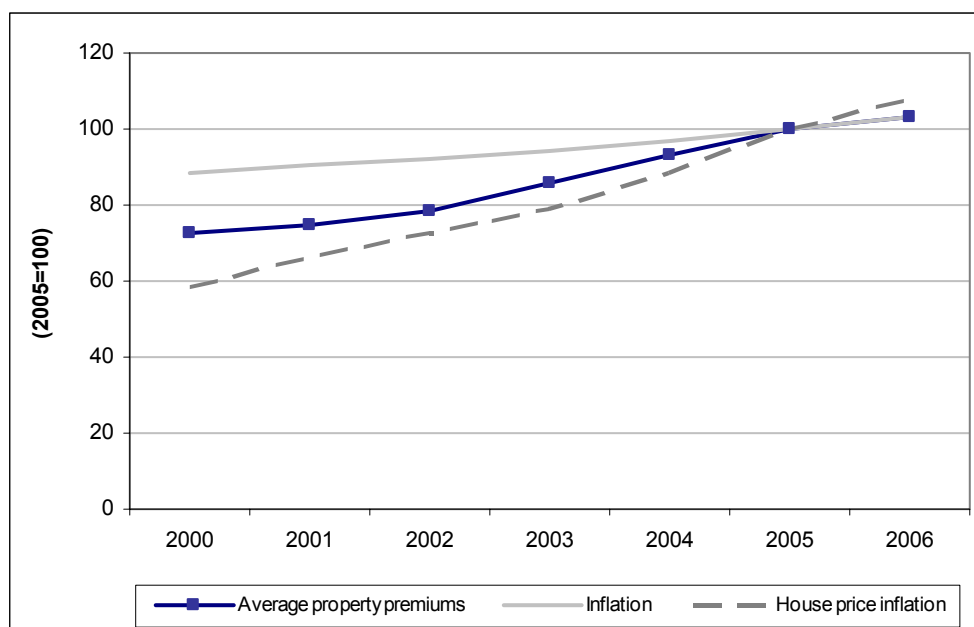
7.197 New York, along with Pennsylvania, is notably more concentrated than the other USA States reviewed here, albeit still less so than the vast majority of EU27 national markets.

Premiums

7.198 As illustrated in Figure 7.61, average premiums grew consistently over the period 2000 to 2006 and this appears to have been driven in part both by changes in CPI and house price inflation, although the changes have moved much closer with the latter than with the former. Further, the rate of increase in the average premium increased markedly between 2002 and 2004 compared with the period between 2000 and 2001, and this does not appear to have been a result any acceleration in either house price inflation or CPI.



Figure 7.61: Evolution of Property Premiums in New York, 2000-2006



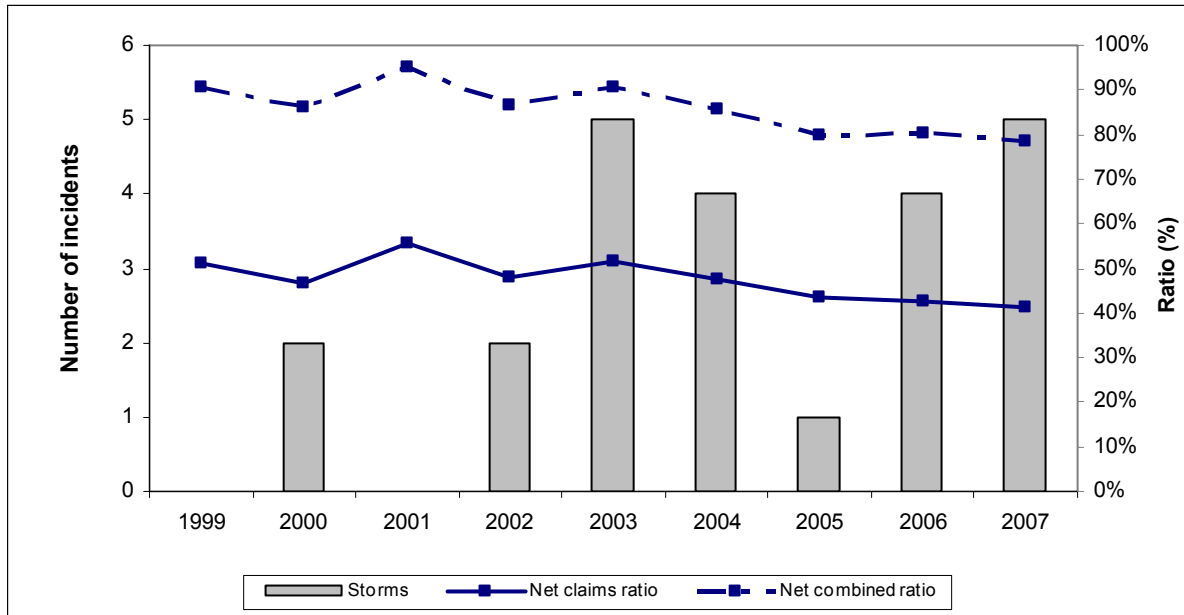
Source: NAIC

Profitability

- 7.199 The impact on the number of storms on the net claims ratio is somewhat mixed, and is largely masked by the continuing inflation in premium levels. This may however, be accounted for by issues relating both to the severity of the storms that occurred and the housing density of the particular areas these storms were actually centred on (since New York has a substantial rural hinterland).
- 7.200 In addition to storms, New York City's property stock would have been affected by the 9/11 tragedy, albeit to a much lesser extent than commercial property insurance lines (the area around the World Trade Center was and is predominantly business). This is a likely contributor to the spike in the net claims ratio in 2001, as illustrated Figure 7.62.



Figure 7.62: Evolution of the Claims and Combined Ratios in New York, 1999-2007



Source: NAIC, FEMA, EE analysis

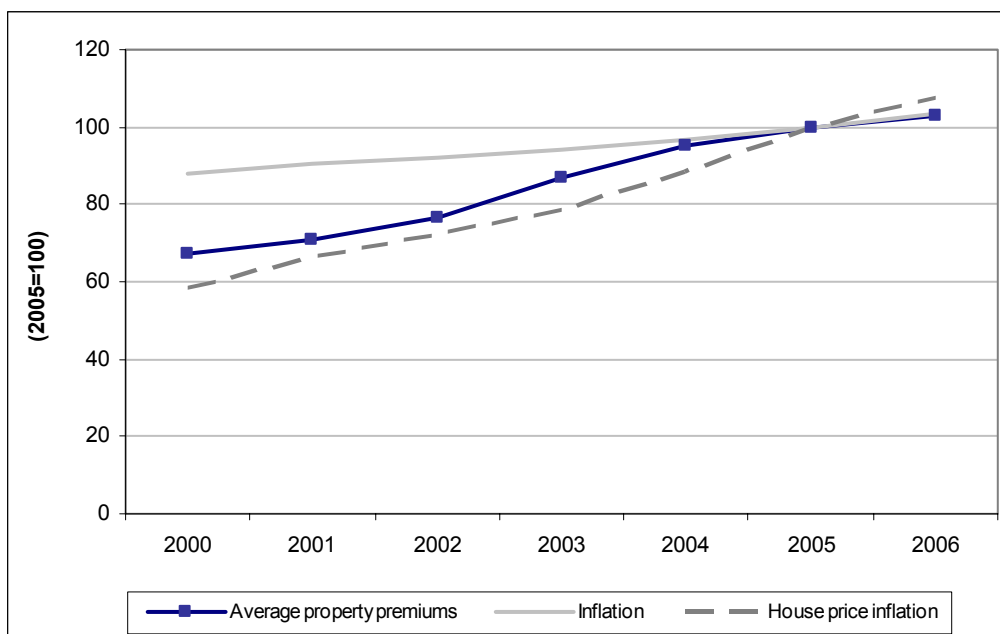
7.201 The expense ratio declined from 39 to 37 per cent over the period. In other words, comfortable levels of underwriting profits were recorded throughout.

Pennsylvania

7.202 Similar to the other States covered in this report, average property premiums in Pennsylvania increased over the entire period in question and moved more closely with changes in house price inflation than with changes in CPI (although both increased constantly over the period also), at least until 2004–06.



Figure 7.63: Evolution of Property Premiums in Pennsylvania, 2000-2006



Source: NAIC

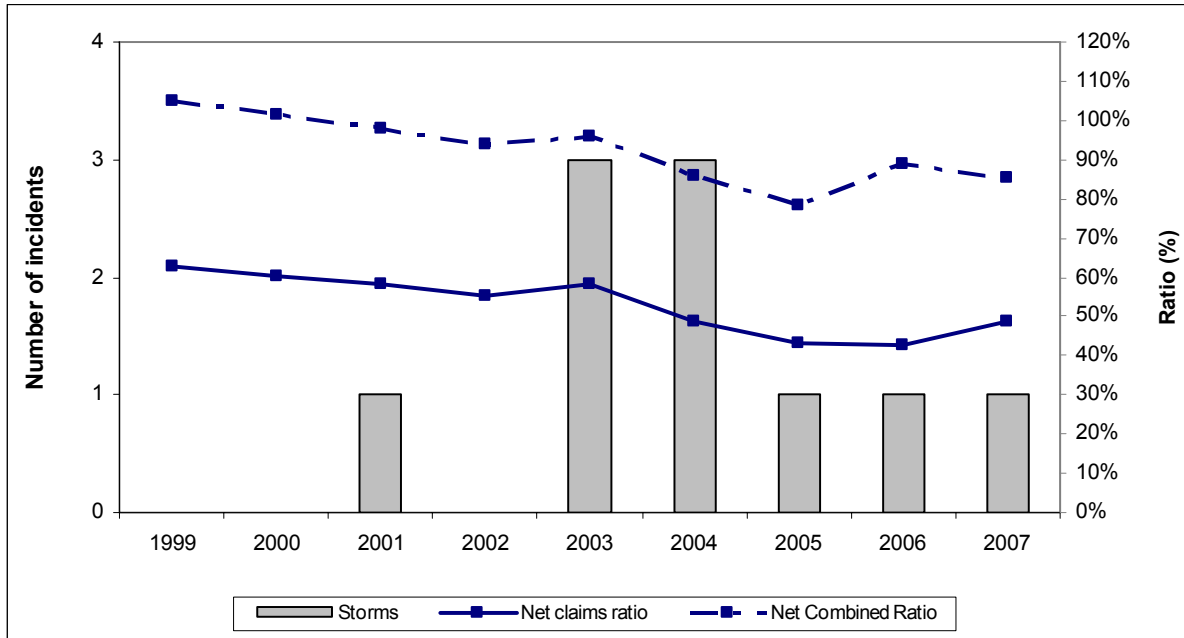
Profitability

7.203 Reported burglaries over the period increased by approximately 4 per cent — however, any associated increase in claim frequency would not have been sufficient to counterweight fully the premium inflation illustrated above.

7.204 However, the incidence in storms in 2003 and 2004 appears to account for net claims ratio did not simply track downwards throughout the period.



Figure 7.64: Evolution of the Claims and Combined Ratios in Pennsylvania, 1999-2007



Source: NAIC, FEMA, EE analysis

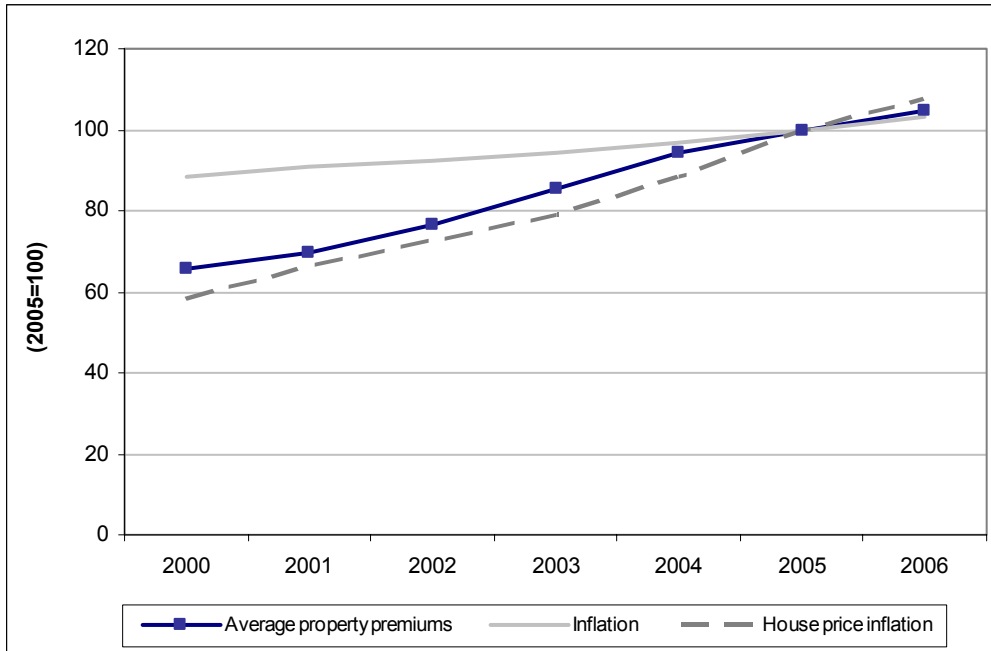
7.205 In line with the experience of the other USA states, the expense ratio was mostly around 40 per cent or slightly below. This means that, with the exception of 2000, underwriting profits were reported in each year.

Vermont

7.206 As illustrated Figure 7.65 average premiums increased over the entire period between 2000 and 2006. As with the other States covered in this report, the change in the average premium appears to have been influenced considerably by changes in the rate of house price inflation over the period.



Figure 7.65: Evolution of Property Premiums in Vermont, 2000-2006



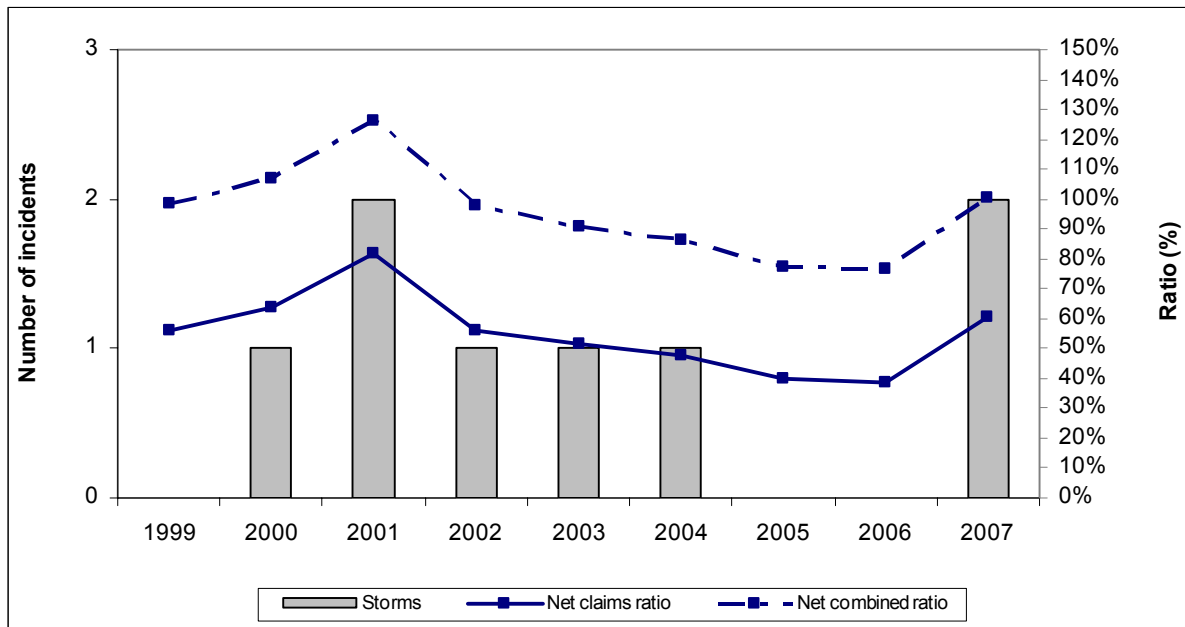
Source: NAIC

Profitability

7.207 It is clear from the chart below that storms have had a marked impact on the net claims ratio, in particular in 2001 and 2007. The expense ratio has been around the 40 per cent mark throughout so that underwriting losses were recorded in 2000 and 2001 (and only avoided by the narrowest of margins in 2007).



Figure 7.66: Evolution of the Claims and Combined Ratios in Vermont, 1999-2007



Source: NAIC, FEMA, EE analysis

Product Innovation

- 7.208 Major innovation in insurance products has not been a significant feature of the home insurance market but products have evolved to provide cover for new risks and to meet changes in individual consumer expectations. As an example cover is now available from some insurers both for the loss of a laptop and for paid for music stored on the lost equipment.
- 7.209 One of the key determinants in home insurance is physical location. This is relevant to the calculation of various risks: burglary (since there are often crime hotspots) and natural catastrophe risks such as flood.
- 7.210 Road to road profiling, where a pricing adjustment may be found based upon postcodes (and their equivalents) is relatively common. Increasingly, technological developments in GIS data have the potential to allow systematic tailoring to a specific property's risk profile.
- 7.211 The use of flood mapping by insurers is extremely common place. To illustrate with some non-exhaustive examples:
- (a) In Austria, HORA is a flood risk zoning and mapping system developed through a public-private partnership (led by the Lebensministerium and the Verband der Versicherungsunternehmen Österreichs, the Austrian Insurance Association), following the massive damages caused by heavy rain falls and flooding in the summer of 2002. The system remain a work in progress (information on every region in the country not yet being available) with GIS based data being provided by the public authorities, and modelling and developing undertaken by the insurance and



reinsurance industry. From the point of view of the insurance industry, HORA is expected to develop into a Probable Maximum Loss-assessment system for underwriters and risk managers, to be used in the setting of premiums.

- (b) In the UK, the flood mapping dataset available from the Environment Agency allows insurers to differentiate down to the square metre — it is therefore possible to differentiate such risks on a house by house basis.
- (c) In the Czech Republic a highly developed tool called FRAT (Flood Risk Assessment Tool)¹¹⁷ is available which allows the user to assess the flood risk at any location in the country. This system is now used by almost all property insurers in the Czech Republic, allowing them to identify high exposed risks and more accurately price flood risks.
- (d) In France a natural risk mapping website was designed for the whole French insurance industry by MRN¹¹⁸ for the dissemination and use of public zoning data. The information is available for comparison with GPS coordinates or downloading of datasets with relevant metadata (such as available from public authorities). Further treatment of the data for more industry-specific use of is under development.

7.212 In addition to Member State-specific maps, there are a number of transnational flood risk maps. CatNet, for example, is an interactive mapping tool created by Swiss RE, and contains information about flood zones in many different European countries such as Belgium, Italy, the Czech Republic, Slovakia, Hungary, Germany, the Netherlands and the UK.

Best Practice Initiatives

7.213 Industry initiatives aimed at reducing either the frequency or the value of claims appear much less prevalent in home insurance than in motor insurance. This is perhaps somewhat surprising: whilst it is a smaller market (or rather less large) than the motor insurance market, it has an important function. We suspect that the important factors at play are that, first, the importance of bodily injury in motor insurance pay-outs raises its political significance. Second, whereas driver behaviour is fundamental to understanding and pricing motor insurance, it is less clear-cut in home insurance. Whilst, trivially, a homeowner fitting a fire alarm will alleviate, at least, that risk the weather is a fundamental driver of claims, and the homeowner can do little about it (which is, indeed, a major rationale for obtaining the insurance in the first place).

7.214 However, the UK's ABI has adopted an active stance. Its initiatives include:

¹¹⁷ The tool was developed by Swiss Re, as the leading reinsurer and developer of catastrophe models, and MMC, the leading provider of GIS (Geographic Information System) technology.

¹¹⁸ 'Mission Risques Naturels', created in early 2000 between the FFSA and GEMA (a mutual insurer), after a year of particularly catastrophic natural events.



- (a) Joining with the UK Home Office to produce a booklet “Insurance Advice on Home Security” which sets out basic security measures such as fitting appropriate locks and security lighting. The ABI believes that access is gained through an unlocked door or window in about one-third of burglaries;
 - (b) Working with Welsh Assembly ministers to improve flood risk management by revamping the planning system to prevent new developments in flood risk areas, and raise awareness of flood risk in the communities most prone to flooding. The Environment Agency identifies one in six properties in Wales to be at risk of flooding.
 - (c) Publishing “Protecting your home from subsidence damage”. This contained advice on, for example, the relative risks of different garden plants promoting subsidence (due to the depth and spread of their root systems).
- 7.215 In the United States of America federally subsidised flood insurance is provided by the National Flood Insurance Program (NFIP), which is managed by the Federal Emergency Management Administration (FEMA). Homes qualify for this insurance only if the community belongs to the NFIP and agree to enforce certain federal floodplain management standards that are aimed to reduce future flood damage (and include, for example, requirements for zoning, subdivision or building, and special-purpose floodplain ordinance).
- 7.216 FEMA assesses each community and assigns flood risk levels: high risk, moderate risk or low risk. When land is designated as a high risk area, it is divided into flood zones and the community must take measures to prevent new home development from increasing the threat of flooding and to protect existing buildings from anticipated flood damage. Such measures might include building levees.¹¹⁹
- 7.217 To the extent that lower premiums may be accessible for those homes fitted with smoke or burglary alarms or a particular form of lock, say, then there is an in-built incentive to policyholders to do something. For example, a Dutch insurer noted that its tariff was based around four key measures: property value, its address, the claims history and the nature of the loss prevention measures relative to the property’s value.

¹¹⁹ FEMA: <http://www.fema.gov/business/nfip/>, accessed 12 November 2009, 11:35



8 INSURANCE PROFILES

Introduction

- 8.1 In this section of the report we present the results of a large-scale data gathering process that we undertook in order to acquire information on the level of premiums in the motor and home insurance markets across the EU27. This was coupled with a similar exercise conducted in six states in the USA for comparison purposes.
- 8.2 We begin by describing the general methodology used to gather the data and discuss a few country-specific issues that we faced during the data gathering process. We then move to describing the results of this exercise presenting a number of tables and graphs that summarise the data.
- 8.3 Then we report the results of an extensive econometric analysis on the determinants of the difference in the level of premiums across and within Member States.

Methodology

Developing the profiles

- 8.4 In order to gather the data on the level of motor and property insurance across the various member states we first developed nine “profiles” each for every “sub-sector” (i.e. M3PL, “comprehensive” motor cover (incorporating both M3PL and own damage elements) and property). The profiles fully described the characteristics of the object to be insured, of the person seeking the insurance and of the desired insurance policy.
- For motor insurance the profiles provide data on the vehicle such as the manufacturer, model and year of manufacturing, engine size, and annual mileage, theft protection devices, etc.
 - For property insurance the profiles provide data on the property such as the floor area, location, type of dwelling, the number of storeys, the date of build, the existence and nature of an alarm system, etc.
- 8.5 For both types of insurance, data on the policyholder were also provided: age, gender,¹²⁰ claim history, type of job, nationality and residency within the country, number of children, etc.¹²¹
- 8.6 We established a comprehensive listing of the relevant variables by careful examination of the information requests made by comparison websites in the UK, Italy, Spain and the

¹²⁰ We have, however, assumed that gender is irrelevant for property insurance.

¹²¹ The complete profiles are reported in Appendices 3 and 4.



USA, together with individual insurance company websites in a small number of other Member States.

- 8.7 The selection of appropriate cars for the study was an exercise in its own right — a number of manufacturers have largely separate product suites between the US and European markets (and a number of European manufacturers do not market their products widely in the USA). Japanese and German car manufacturers predominate in the profiles for this reason.
- 8.8 The role of these variables is explained in Section 4. Details of the profiles are set out in Appendices 3 and 4.

Gathering the data

- 8.9 Having established the profiles on the basis of which the data gathering was to be conducted, we developed a set of guidelines for the staff responsible for acquiring the information. Pilot exercises to gather the data were made in order to test whether some parts of such guidelines were unclear or where additional clarifications may have been required.
- 8.10 The data were gathered over a period of 4 weeks starting the 16th of March 2009.¹²² The first two weeks were devoted to gathering the majority of the data while the second two were needed to fill the gaps left by the initial attempts. For countries that are not part of the Eurozone an exchange rate calculated on the basis of the average interbank rate of the month before the quote was gathered was used to convert the premiums into euros.
- 8.11 A number of different tools have been used for this exercise. In countries where they are available and judged to be of sufficient quality, we have used comparison websites. Such websites have the advantage of providing a number of quotes from different insurance companies and would therefore give a reasonable idea of the range of available quotes.
- 8.12 When comparison websites were not available (or of insufficient quality to be reliable) we have used the websites of a number of insurance companies or phone calls to insurance providers or brokers. Such ways of obtaining quotes are considerably more time consuming and cannot guarantee results that are representative of the market as a whole (if, for instance, only quotes from a small subsets of companies are reported).
- 8.13 For each profile our aim was to gather more than a single quote: our target was to gather at least five quotes for each profile in each country, or, where looking at a region within a country (or one of the Selected USA states) within that region. Unfortunately, in some cases, this has proven to be impossible, e.g. because companies insisted in having face to face meetings, and we had to settle for a lower number of quotes.

¹²² Estonian data were gathered considerably later, i.e. in July, due to lack of language resources in the relevant period.



Country-Specific Issues

8.14 During the data gathering process a number of country specific issues have emerged. This is not surprising since different market practices exist in different countries. Differences are also present between the states of the USA, where different rules apply to each state. The scale of differences is not such as to invalidate comparisons between countries but there are a small number of instances where it has not been possible for us to collect the required data. We summarise the specific issues we have encountered in the following paragraphs.

Austria

8.15 In Austria, the comparison websites that we found did not offer the option that the insured person was the only one driving the vehicle (i.e. it was implicitly assumed that an insured car can and would be used by the whole family). This is likely to be reflected in higher price levels.

Belgium

8.16 The market norm for the insurers from whom we gathered quotations is of a nil excess across all products. One insurer did not offer a "third party, fire and theft" product (the closest match was third party and fire cover, i.e. theft was excluded).

Bulgaria

8.17 In Bulgaria the "partial autocasco" product includes third party cover plus fire, theft and some non-incident vehicle damage. There is no "third party, fire and theft" product. The market norm for the insurers from whom we gathered quotations is of a nil excess. This applies to motor comprehensive, M3PL or for household insurance products. It was not possible to obtain a "contents only" insurance quote through the sources that we used.

8.18 Somewhat surprisingly for a non-eurozone country, quotations were typically provided in euros.

Cyprus

8.19 The market norm for the insurers from whom we gathered quotations is of a nil excess for all motor insurance products.

Czech Republic

8.20 In the Czech Republic it proved to be impossible to get quotes for structural building insurance. The insurance companies that we contacted would not provide such a quotation without an assessment of the property conducted by one of their experts. Therefore, only contents insurance quotations (for the urban apartment) were obtained.

8.21 There was no excess on M3PL policies. In respect of the third party, fire and theft product; the excess was solely in respect of the fire and theft part of the cover.



- 8.22 For fully comprehensive motor insurance, the market norm for the insurers from whom we gathered quotations was for an excess equal to five per cent of the claim, with differing minimums.

Denmark

- 8.23 The market norm for the insurers from whom we gathered quotations was for a zero excess on subsidence or building cover in Denmark, with only contents cover occasionally coming with an excess.

Estonia

- 8.24 The description of the size of the urban apartment (at 100m²) was deemed unusually large for Tallinn (at least outside of a particular conservation area largely populated by medieval architecture). In order to obtain a more “standard” quotation, we have retained the physical characteristics of the property (i.e. the number of bedrooms and so on), but reduced the area to 60m².
- 8.25 The level of motor insurance is linked to the driver's risk coefficient. The exact calculation of these is by an agency using a national database; however, an estimate can be made based upon the accident record as presented in the profiles. The lowest coefficient is 0.48 and the highest possible is 3.2 (the lower the coefficient, the lower the monthly payment).
- 8.26 For fully comprehensive motor insurance, the minimum voluntary excess is 3000 EEK (about €190).

Finland

- 8.27 It was not possible to get property insurance quotes for apartments and terraced houses. This is due to the particular “division of responsibility” between management companies and shareholders (i.e. homeowners). Homeowners often own shares in the management company rather than owning a home per se. According to the Finnish Real Estate Federation:

In the Housing Companies Act of the Finnish Law (809/91), Section 78§ states the responsibilities of upkeep between shareholders (owner of apartment) and the company (housing company). This section gives the company the responsibility of repairs related to the structure of the building while the shareholder is responsible for care for the internal parts of an apartment in his possession.

The responsibility of repair is not related to the kinds of insurances each party holds. The insurance coverage may differ from the responsibilities of repair stated by the law.¹²³

¹²³ www.vastuunjakotaulukko.fi



- 8.28 Given this division of responsibility for repairs between companies and homeowners, each party takes on insurance to cover its responsibilities. Therefore the management company usually buys building insurance and the home owner contents insurance.
- 8.29 However, in the case of a detached house the owner is responsible for all kind of damages caused by its house and thus there are fully-fledged property insurances offered for detached houses as opposed to terraced houses or apartment blocks.
- 8.30 All property insurance quotes were based on the size of the house; none asked for an estimated value. There was no subsidence excess for the quotes obtained.

France

- 8.31 “Contents only” insurance quotations could not be obtained in France. The tenant is required to insure their accommodation under a policy called ‘Multirisques habitation’ (multi-risk home insurance) policy. There are different versions of this coverage, but it will always include damages caused by fire, water and natural disasters. This insurance covers damages to the property itself and also to the contents. The tenant can insure specific items of high personal or material value separately, if the item is not given sufficient coverage under the policy. The ‘Multirisques habitation’ always contains liability insurance against damages caused by the tenant, their children or pets.
- 8.32 The landlord can/should also insure his property, because it will not always be covered by the tenant's or the co-owner's insurance. The standard insurance contract for the landlord is the ‘Propriétaire non occupant’ (Non-occupant owner). Prices for this insurance vary depending on the size and type of the property.

Germany

- 8.33 An “all-in” (i.e. contents *and* building) insurance on a combined basis was not available. The premiums represent the sum of separate building and content insurance policy quotations.
- 8.34 In order to get a quote for building insurance, companies required the estimated value of the building in 1914 given in Goldmark (the “Wert 1914”). This amount can be found in the ownership documents of a house but, clearly, we did not have access to such documents. Alternatively, it is possible to give the construction value of the property in the year it was built. This has to be stated in Deutschmarks in the case that the building was constructed before the year 2000 and in euros if the building was constructed thereafter. We estimated the ‘Wert 1914’ using an online service.¹²⁴
- 8.35 The market norm for the insurers from whom we gathered quotations was for a zero excess for buildings subsidence or contents claims.

¹²⁴ www.financekey.de/wert1914.html



Greece

- 8.36 There are very few houses dating back to 1900 and 1930 in Greece (as envisaged by the profiles). This has to do with Greek legislation which essentially incentivised people to give their property to construction companies which then often built multi-story buildings. The quotes obtained were for buildings that were built in 1960 at the earliest (for those profiles that required an earlier construction date).
- 8.37 In Greece, the market norm for the insurers from whom we gathered quotations was for a zero excess across all product types.

Hungary

- 8.38 The market norm for the insurers from whom we gathered quotations is of a nil excess for M3PL and property insurance. For fully comprehensive motor cover an excess of 10 per cent of the claim was typical.
- 8.39 For property insurance, the comparison and insurance company websites used specified minimum rebuild values (i.e. it was not wholly at the discretion of the insuring party). These varied from website to website.

Ireland

- 8.40 A M3PL quotation for the BMW X5 was not obtainable, either online or through insurance brokers by telephone. In essence, the combination within our profile of a driver (with an imperfect driving history) and this car was deemed inappropriate for M3PL only cover in Ireland.

Italy

- 8.41 The market norm for the insurers from whom we gathered quotations is of a nil excess for all motor insurance products.

Latvia

- 8.42 The market norm for the insurers from whom we gathered quotations is of an excess amount for motor comprehensive, buildings and contents cover set at €143 (100 Lats).
- 8.43 The M3PL cover is calculated with reference to an actual car and the associated driver. It was not therefore feasible to replicate accurately the details described in our profiles and we have therefore been unable to obtain M3PL quotes for Latvia.

Lithuania

- 8.44 The market norm for the insurers from whom we gathered quotations was for a zero excess across all product types.



Luxembourg

- 8.45 In order to obtain motor insurance quotations at least one of the insurers in the Luxembourgish market required kWh equivalent-energy data and, for another, the gross vehicle weights of the cars in the profiles were necessary. These data were obtained from the websites of the relevant car manufacturers.
- 8.46 The market norm for the insurers from whom we gathered quotations is of a nil excess for all motor insurance products.

Malta

- 8.47 In common with a number of the smaller markets, in Malta there are relatively few insurance companies, and these use mystery shopping as a commercial technique. There is some suspicion of people requesting multiple quotes within a short timeframe.
- 8.48 The market norm for the insurers from whom we gathered quotations was an excess of €235 for motor comprehensive cover.
- 8.49 The market norm for the insurers from whom we gathered property insurance quotations was an excess of €55.

Netherlands

- 8.50 The norm was for motor insurance policy premiums to be quoted *net* of taxes.

Poland

- 8.51 The market norm for the insurers from whom we gathered quotations is of a nil excess for motor comprehensive and property insurance.

Portugal

- 8.52 The market norm for the insurers from whom we gathered quotations is of a nil excess for M3PL only policies. There was no market norm regarding the level of excess within the other product groups (including third party, fire and theft cover). The modal levels of excess were nil and two per cent of the claim value for motor comprehensive cover.

Romania

- 8.53 Valid ID numbers were required in order to obtain online quotations that matched the dates of birth of the drivers in the profiles of drivers. This was achieved heuristically.

Slovakia

- 8.54 As in the Czech Republic, insurance companies would not provide a quote for building insurance without an assessment conducted by one of their expert assessors. Only contents insurance quotes for the apartment have been gathered in Slovakia.



8.55 The market norm for the insurers from whom we gathered quotations was for a motor comprehensive excess equal to 10 per cent of the claim, subject to a minimum of €332. The market norm for the insurers from whom we gathered property insurance quotations was a nil excess.

Slovenia

8.56 In Slovenia, obtaining quotations without a face to face meeting proved difficult (but not impossible). This restricted our choice of insurers somewhat.

Spain

8.57 In Spain, the market norm for the insurers from whom we gathered quotations was for a zero excess across all product types.

Sweden

8.58 In Sweden any resident (Swedish citizen or not) has a personal identification number (PIN) which provides information on the address, age, sex, etc. Many insurance companies in Sweden require a valid PIN in order to provide a quote (at least on-line).

8.59 We were able to generate a number of PINs that corresponded to the profiles we developed for motor and property insurance. However this approach contained a number of shortcomings:

- (a) Firstly, it is impossible to infer, from the PIN allocated to a person, his or her nationality and therefore we have not been able to differentiate the quotes according to this factor;
- (b) Secondly, the PIN allows insurance companies to access information on the credit score of each resident and, if there is a correlation between credit score and risk, this would clearly have an impact on the quotes provided.¹²⁵ There is no way for us to infer the credit rating of the artificial PINs that we generated — however, we have reviewed the internal consistency of the Swedish quotes so as to note any apparent discrepancies that could be driven by a particular PIN having an adverse credit rating attached to it: no particular data points have been identified as problematic;
- (c) Finally we were unable to guarantee that the profiles for males and females live at exactly the same address but we made sure that they lived within the same postcode area to maximise comparability.

¹²⁵ According to the General Insurance Premium Rating Issues Working Party, 2007: “One factor that is used extensively in some states in the US but not in the UK is credit score, and several CAS papers can be found on the topic. [...] the US evidence is that it is a very powerful rating factor”. We will discuss this issue with insurance companies and associations in Sweden to understand what might be the weight given to credit scores before the end of this study.



8.60 The use of PINs offers two main advantages: first, by providing standard information it reduces the amount of time required by someone to obtain a quotation (i.e. by improving the customer interface); second, looking specifically at the payment history details incorporated into the PIN, Swedish insurers have found a high degree of correlation between poor payment records and the likelihood of a future accident.

8.61 The market norm for the insurers from whom we gathered quotations was for a zero excess for M3PL policies.

UK

8.62 From the quotations gathered, with only one exception, comprehensive cover included a courtesy car.

USA

Connecticut

8.63 The market norm for the insurers from whom we gathered quotations was for a zero excess for motor comprehensive and M3PL policies.

8.64 The norm was for building excess to be €387 (\$500). No quote was given for the excess for subsidence or contents claims.

Maine

8.65 The market norm for the insurers from whom we gathered quotations was for a zero excess for motor policies.

8.66 The market norm for the insurers from whom we gathered quotations was for a building excess equal to €387 (\$500).

New Jersey

8.67 The market norm for the insurers from whom we gathered quotations was for motor comprehensive policies to have an excess equal to €77 (\$100), and zero excess for M3PL policies.

8.68 The market norm for the insurers from whom we gathered quotations was for contents excess to be €386 (\$500), where quoted, and the building excess was either €773 (\$1000) or €386 (\$500).

New York

8.69 The market norm for the insurers from whom we gathered quotations was for motor comprehensive policies to have a zero excess or an excess of €39 (\$50).



8.70 The market norm for the insurers from whom we gathered quotations was for property insurance policies to have zero excess for subsidence or contents claims.

Pennsylvania

8.71 The market norm for the insurers from whom we gathered quotations was for motor comprehensive policies to have a zero excess or an excess of €386 (\$500), and the market norm for M3PL policies was for a zero excess.

8.72 The market norm for the insurers from whom we gathered quotations was for property insurance policies not to quote an excess for subsidence or contents claims.

Vermont

8.73 The market norm for the insurers from whom we gathered quotations was for motor comprehensive policies to have an excess of €386 (\$500).

Overview

8.74 In the paragraphs that follow we provide a brief overview of the quotes obtained in our data gathering exercise. We provide graphical representations of the level of premiums for each of the nine profiles that we developed.

8.75 The results presented refer to insurance quotes excluding taxes i.e. the quote before any insurance tax is applied. While there are instances where this does not make a difference there are countries such as Austria and Denmark for example, where taxes are almost 50 per cent of the premium. Such quotes are not those that a consumer would observe when buying insurance as they would clearly have to pay the taxes. However, since insurance companies have no control on taxes it is our view that the appropriate comparison is between net premiums.

8.76 We present a number of charts that show the cheapest quotes we obtained for each profile in the various countries. If more than one quote is obtained for a given profile in a given country, as is the case in most instances, then we report the mean of such quotes.

M3PL

8.77 We summarise below the main characteristics of the M3PL profiles. These are repeated in full at Appendix 3.

**Table 8.1: The M3PL profiles**

Profile	
	Male and Female drivers.
1	Toyota Yaris M3PL supplemented by fire and theft cover. This recognises that in a number of markets (e.g. Ireland) M3PL <i>only</i> cover is somewhat uncommon and so undue focus upon it would ignore market conditions
2	Honda Civic Local and resident (but non-national) drivers. This is to explore any possible differentiation made by insurers.
3	BMW X5 Male and Female drivers.

8.78 We set out in the following tables a summary of the coverage that we have obtained from the mystery shopping exercise.



Table 8.2: Coverage of M3PL Profiles

	Multiple quotations, including regional analysis
	Multiple quotations and/or multiple sources
	One quotation only obtained
	No quotation obtained

	1: Toyota Yaris		2: Honda Civic		3: BMW X5	
	Male	Female	Slovak	Local	Male	Female
Austria	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Belgium	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Bulgaria	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Cyprus	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Czech Republic	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Denmark	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Estonia	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Finland	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
France	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Germany	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Greece	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Hungary	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Ireland	Multiple	Multiple	Multiple	Multiple	No quotation	No quotation
Italy	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Latvia	No quotation	No quotation	No quotation	No quotation	No quotation	No quotation
Lithuania	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Luxembourg	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Malta	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Netherlands	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Poland	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Portugal	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Romania	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Slovakia	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Slovenia	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Spain	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Sweden	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
United Kingdom	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
USA						
Connecticut	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Maine	No quotation	No quotation	No quotation	No quotation	No quotation	No quotation
New Jersey	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
New York	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Pennsylvania	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple
Vermont	Multiple	Multiple	Multiple	Multiple	Multiple	Multiple

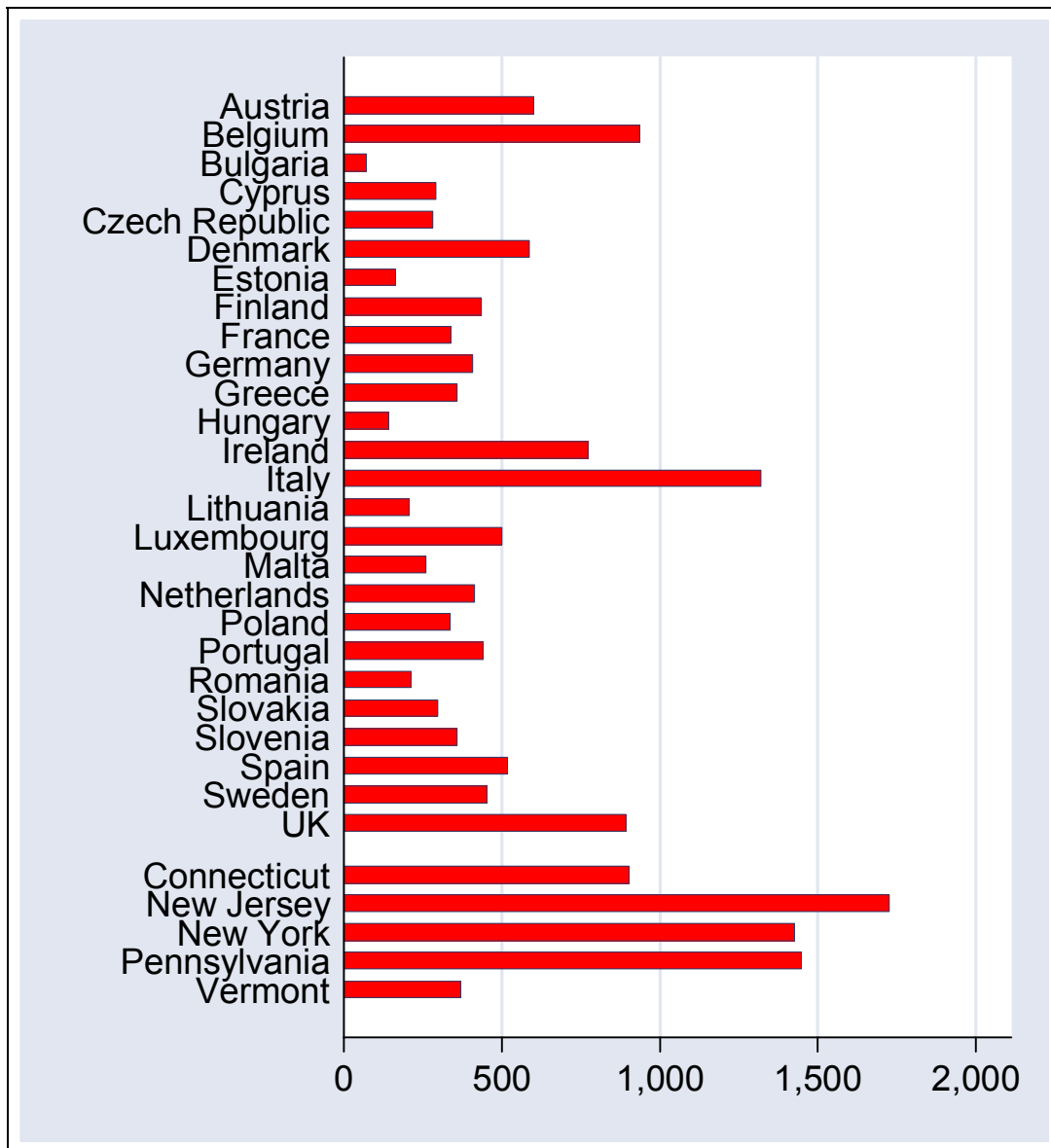
Profile 1: Toyota Yaris (M3PL supplemented by fire and theft cover)

8.79 Figure 8.1 provides an overview of the quotes obtained (taking an average of quotations for male and female drivers where these diverged). The most expensive insurance



quotes for this profile are found in New Jersey while in the EU Italy is considerably more expensive than any other Member State. For this profile, the Selected USA States quotes are considerably more expensive than the EU.

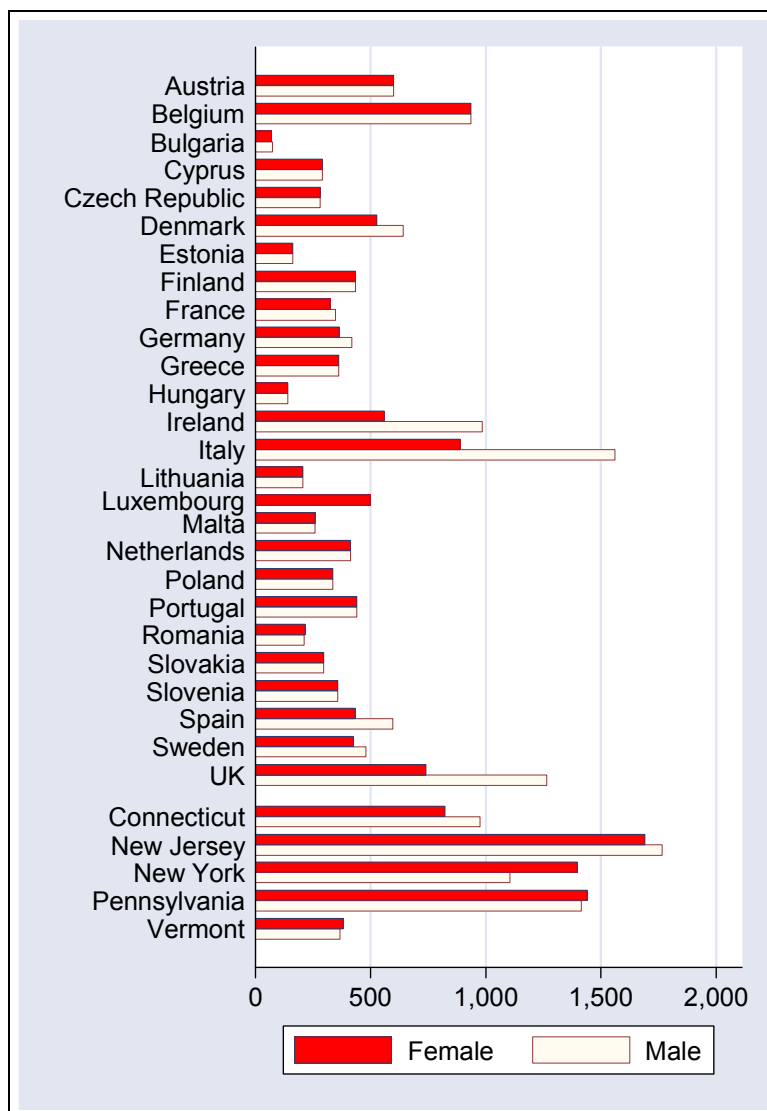
Figure 8.1: Third party, fire and theft quote for Profile 1 (Toyota Yaris), amounts in euro



8.80 Figure 8.2 reports the result for all the gender differences for Profile 1. Differentiated quotes by gender are present in several states. The largest differences are found in Italy, Ireland and the UK where, unsurprisingly, male drivers are charged considerably more than female drivers.



Figure 8.2: Gender variation for Profile 1, amounts in euro



8.81 The average of the cheapest quote obtained in each country for this profile across all observations is €587. We now turn to the in-country variation that we found.

Within-country variation

8.82 Among the countries where more than one location was used in the data gathering differences have emerged in the majority of them. We have calculated the standard deviation and the range (i.e. the difference between the maximum and the minimum quote) as well as the coefficient of variation (i.e. the ratio between the standard deviation and the mean) in order to describe the variation found. The results are summarised below: (Please note that a “0” indicates that no variation was found; a blank space that all quotations were obtained in respect of a single location with respect to that particular country or state.)

**Table 8.3: Within country variation of quotes for Profile 1**

Country	Mean	Range	Standard deviation	Range/Mean	Coefficient of Variation
Austria	603	34	19	0.06	0.03
Belgium	938	0	0	0.00	0.00
Bulgaria	73	8	5	0.11	0.07
Cyprus	291				
Czech Republic	283	37	21	0.13	0.07
Denmark	586	113	65	0.19	0.11
Estonia	166	31	18	0.19	0.11
Finland	437	46	27	0.11	0.06
France	338	90	42	0.27	0.12
Germany	407	193	91	0.47	0.22
Greece	358	47	17	0.13	0.05
Hungary	143	47	27	0.33	0.19
Ireland	773				
Italy	1322	1786	647	1.35	0.49
Latvia					
Lithuania	206				
Luxembourg	499				
Malta	262				
Netherlands	415				
Poland	336	412	238	1.23	0.71
Portugal	443	0	0	0.00	0.00
Romania	215	8	5	0.04	0.02
Slovakia	298	0	0	0.00	0.00
Slovenia	357				
Spain	517	189	96	0.37	0.19
Sweden	453				
UK	894	966	366	1.08	0.41
Connecticut	902	153	108	0.17	0.12
Maine					
New Jersey	1729	850	450	0.49	0.26
New York	1428	757	404	0.53	0.28
Pennsylvania	1450	115	58	0.08	0.04
Vermont	372	28	13	0.08	0.03

Source: Europe Economics calculations

- 8.83 In the EU, Poland, Italy and the UK are the places where quotes vary the most, with Poland having the largest variation of all in the sample (measured by the coefficient of variation).



- 8.84 In Poland the premiums are considerably higher in Warsaw compared to Krakow: the cheapest quote obtained for this profile in Warsaw was four times higher than the corresponding quote in Krakow. In Italy the cheapest quote in Naples was twice as expensive as those in Rome and Milan (work by ANIA has consistently shown premiums to be considerably higher in the South of Italy compared to the North). In the UK, the cheapest quote in London was 25 per cent cheaper than that for Manchester.
- 8.85 In the USA, the greatest amount of variation is seen in New York and New Jersey. There was very little variation in the other states.
- 8.86 No variation was found in the following countries for this profile: Belgium, Portugal, and Slovakia.

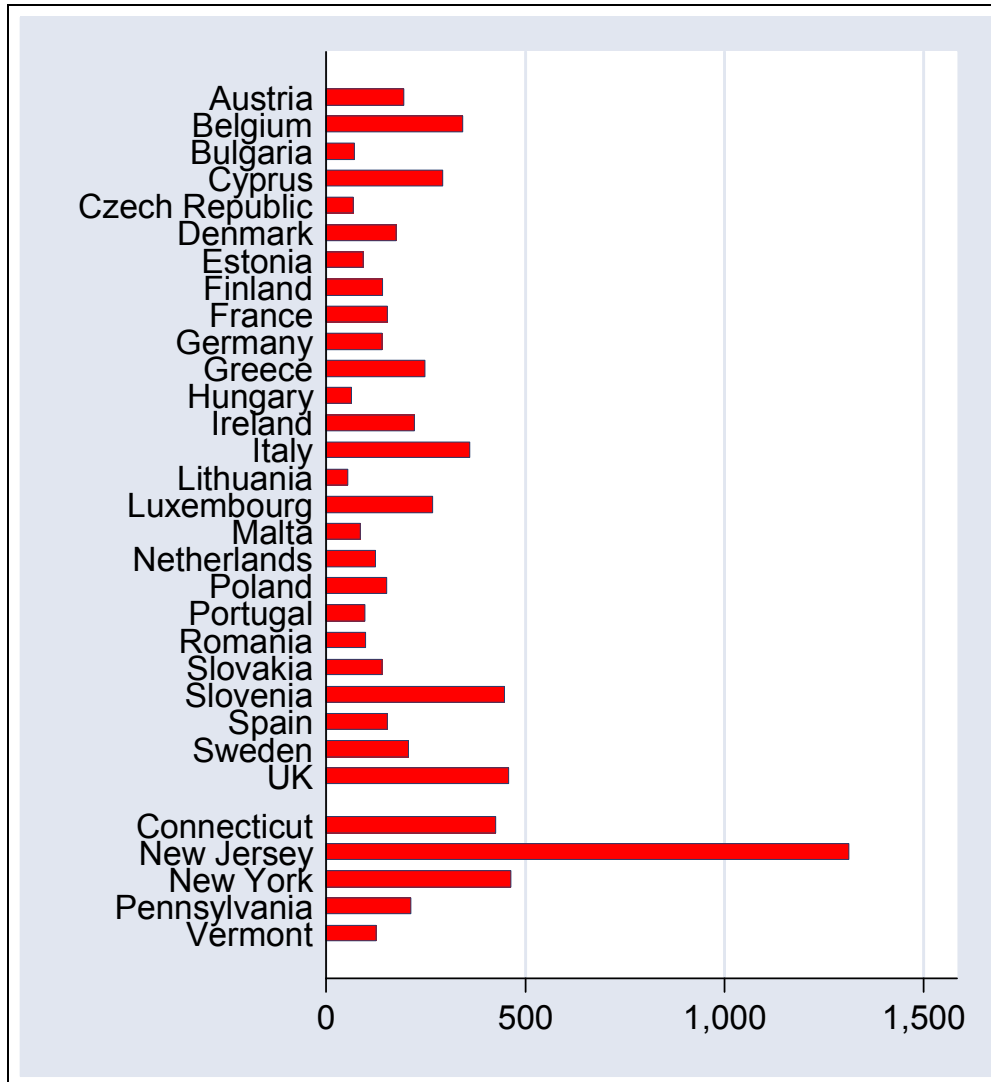
Profile 2: Honda Civic

General information and average quote

- 8.87 For this profile we have gathered more than 450 quotes of which approximately 40 per cent are for a foreign national. These quotes translate into more than 110 observations since multiple quotes have been gathered for every profile in most locations.
- 8.88 The average of the cheapest quote obtained for this profile across all observations is €260.
- 8.89 Figure 8.3 and Figure 8.4 report the results obtained for Profile 2. In this case the latter graphic illustrates the difference in premiums due to nationality rather than to gender (the quotations reported nearly all relate to a woman driver, with some additional observations on an equivalent male driver for additional comparison).
- 8.90 New Jersey is still notably expensive while in the EU Italy is overtaken by the UK and Slovenia as the most expensive location.



Figure 8.3: M3PL quote for Profile 2 (Honda Civic), amounts in euro



Variation according to nationality

8.91 It is only in a small minority of states that insurance companies differentiate on the basis of nationality.¹²⁶ The averages for native and foreign nationals are respectively €254 and €322. The quotes obtained for foreign nationals are also more volatile: their standard deviation is €284 while the standard deviation for native policy holders is €224. However, as already reported when discussing the overall results, such differences are driven by the results from only in a small subset of the states we analysed.

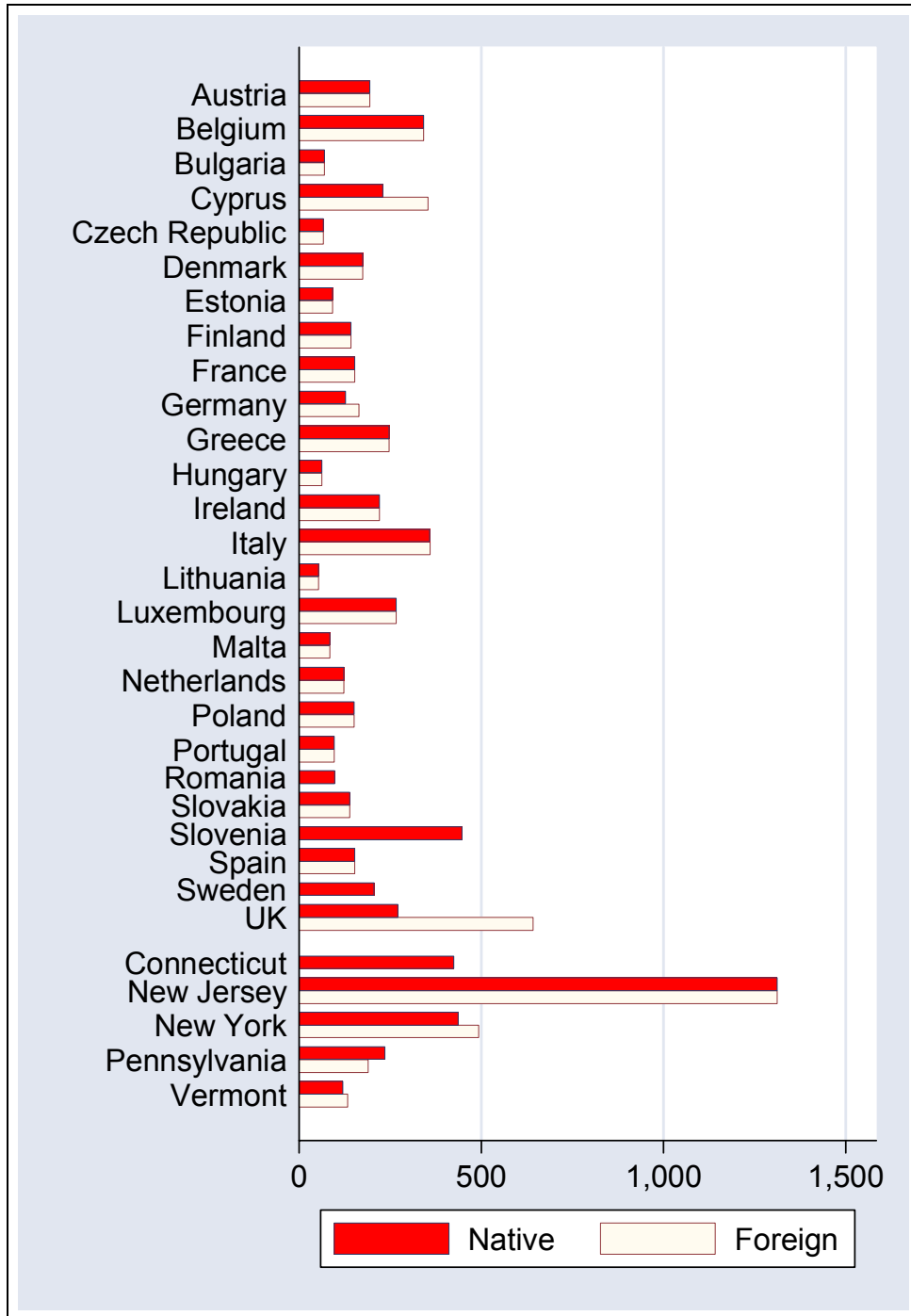
¹²⁶ Rather than strictly on *nationality*, this differentiation may be on the basis of the country where the driving licence was obtained.



- 8.92 These differences are due to two factors: first, in some cases the insurance that provided the best quote for a native citizen would not provide a quote for the foreign citizen at all (i.e. there was a small degree of discrimination), and second in other cases the premium quoted by the *same* company was different according to the nationality (and the type of driving license) held.
- 8.93 The UK is where such differences are the largest. A plausible hypothesis may be that differentiation is made on the basis of driving culture (i.e. left-hand versus right-hand drive) since the nationality tested was a Slovak. This is reinforced by the fact that significant variation was also identified in Cyprus. The third country with notable differentiation was Germany. Here, clearly, an alternative explanation is required. It is plausible to contend that the price differential is risk-based, being linked to experience of autobahn driving and the lack of a speed limit on some of them. However, this strikes us as a weaker rationalisation than that applicable in the UK and Cyprus and one would have to check that similar differences are present for other non-German policyholders in order to be more sure.
- 8.94 In the USA, a similar pattern emerged for the states of New York and Vermont while, somewhat surprisingly, price differentiation is present in Pennsylvania — but in reverse such that the foreign national is charged less than a local USA citizen, although for other quotes (i.e. not the cheapest) this effect is not present — it may simply be an eccentricity of the quotation calculation software by the firm in question.



Figure 8.4: Nationality variation for Profile 2, amounts in euro



Within-country variation

8.95 For a number of countries in the EU and in the USA we also gathered quotes from different parts of the same country to explore the effects of location on the premiums requested. The results are summarized in Table 8.4.

**Table 8.4: Within country variation of quotes for Profile 2**

Country	Mean	Range	Standard deviation	Range/Mean	Coefficient of Variation
Austria	196	0	0	0.00	0.00
Belgium	344	20	12	0.06	0.03
Bulgaria	70	0	0	0.00	0.00
Cyprus	232				
Czech Republic	67	0	0	0.00	0.00
Denmark	177	0	0	0.00	0.00
Estonia	94	1	1	0.01	0.01
Finland	143	0	0	0.00	0.00
France	153	10	6	0.07	0.04
Germany	141	69	39	0.49	0.27
Greece	250	0	0	0.00	0.00
Hungary	63	0			
Ireland	221				
Italy	361	234	109	0.65	0.30
Latvia					
Lithuania	56				
Luxembourg	266				
Malta	85				
Netherlands	125				
Poland	151				
Portugal	97	18	10	0.18	0.10
Romania	98	15	8	0.15	0.09
Slovakia	142	0	0	0.00	0.00
Slovenia	449	0			
Spain	153	0	0	0.00	0.00
Sweden	207				
UK	457	573	224	1.25	0.49
Connecticut	426	0	0	0.00	0.00
Maine					
New Jersey	1314	15	9	0.01	0.01
New York	465	68	33	0.15	0.07
Pennsylvania	213	108	52	0.51	0.24
Vermont	127	35	15	0.28	0.12

Source: Europe Economics calculations

8.96 In the EU, Italy, Germany and the UK are the places where quotes vary the most, with the UK having the largest absolute variation of the sample. Very little variation is found in the



other countries, with no variation found in Austria, Bulgaria, the Czech Republic, Denmark, Finland, Greece, Slovakia and Spain.

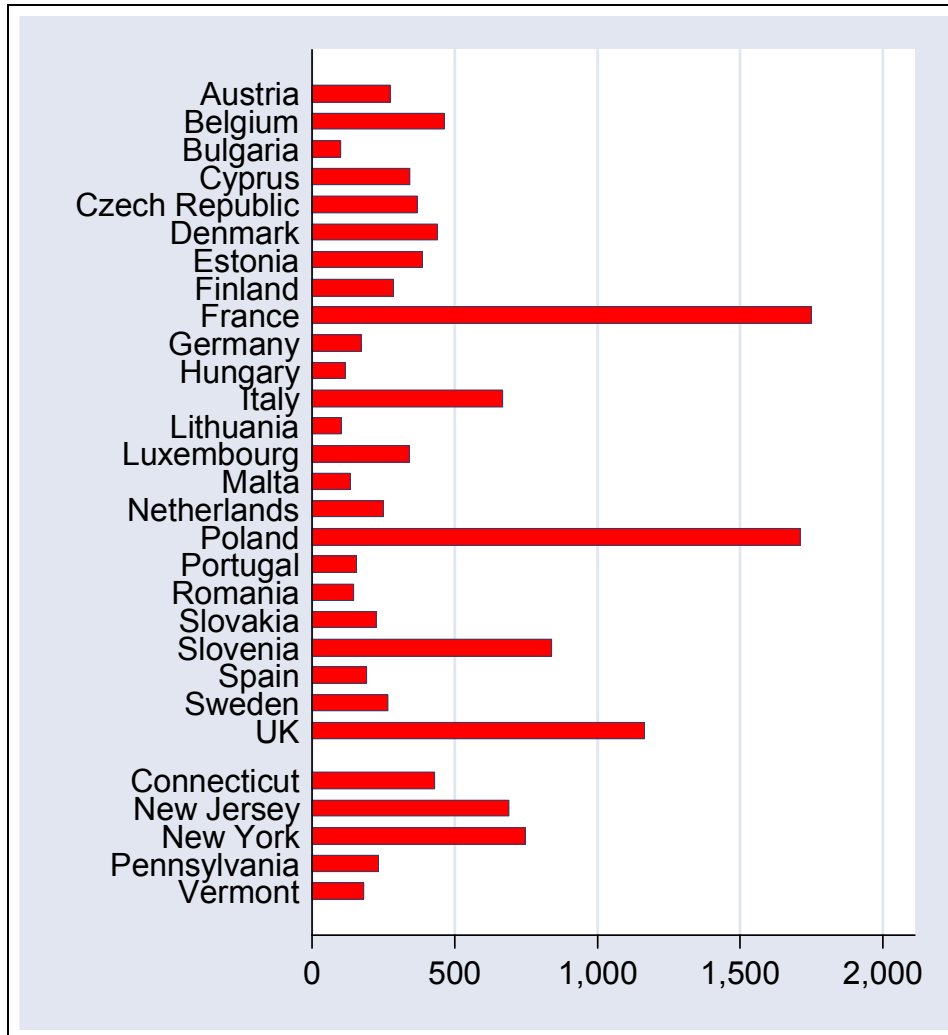
- 8.97 In Italy premiums are again considerably higher in the South of the country: in our sample the cheapest quote in Salerno is more than twice as expensive as that in Mantua. In Germany a similar pattern emerges: the former East Germany (Gera) is 1.7 times more expensive than the Western part of the country (Trier).
- 8.98 In the USA Pennsylvania is the state where the most variation is experienced. Surprisingly there does not seem to be much variation in the state of New York, notwithstanding its size and diversity.

Profile 3: BMW X5

- 8.99 Finally for M3PL, Figure 8.5 and Figure 8.6 report the results relative to Profile 3. Average quotes for this profile are considerably higher than for the other profiles and this is likely to be due mainly to two factors: first of all, the car insured has a considerably larger engine (which may drive accident rates and so claim frequency), and second, the insured driver has had a recent claim (and, affecting expectations of likely future claim frequency). On the other hand, annual mileage is lower than that for Profile 2. The relatively high value of the car should not be an influence directly (except on repair costs) since the cover is M3PL only.



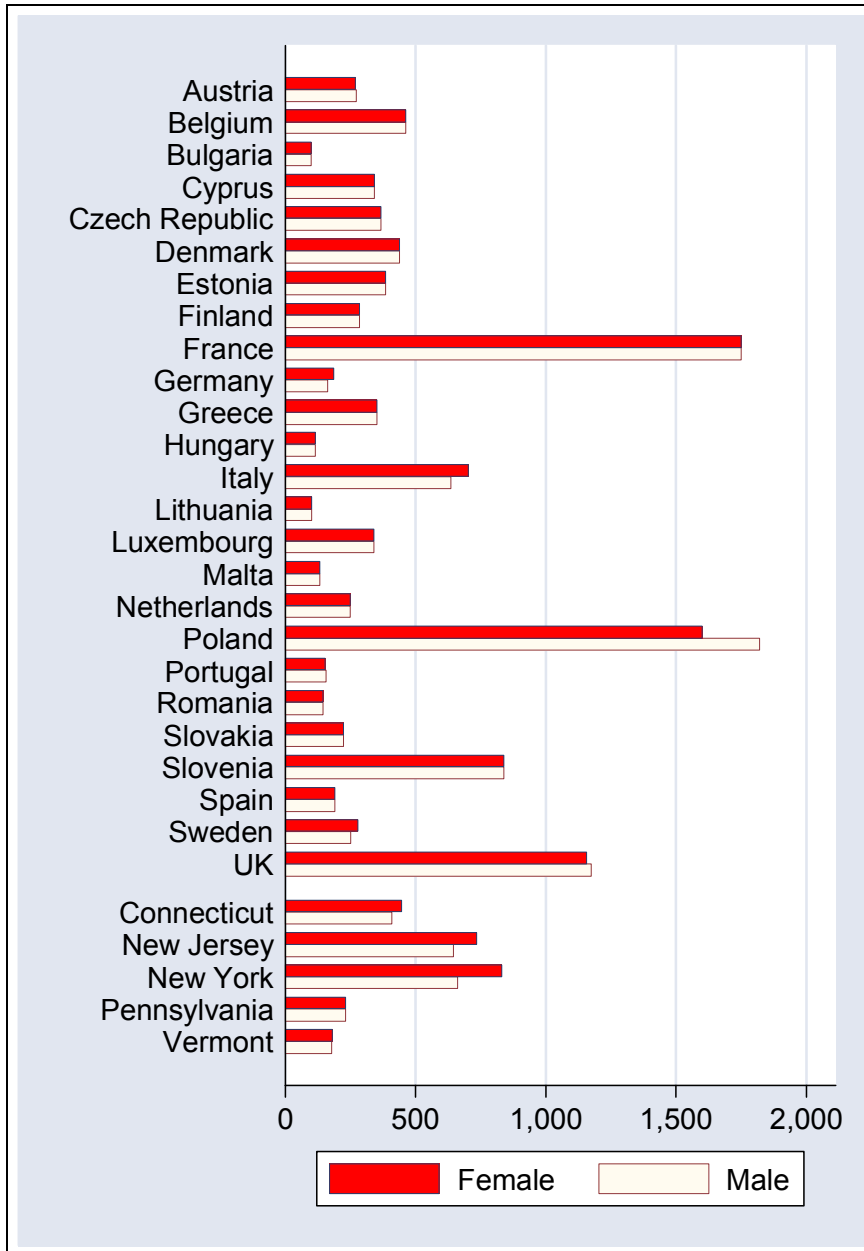
Figure 8.5: M3PL quote for Profile 3 (BMW X5), amounts in euro



8.100 Gender differentiation is much less pervasive for this profile: it is likely that other considerations (i.e. engine size, claims history, etc) are much more important in this case (i.e. the car matters more relative to the driver in this profile). Interestingly, in a number of instances (Germany, Italy and Sweden in Europe; Connecticut, New Jersey and New York in the USA), male drivers obtain quotes that are cheaper than those offered to female drivers.



Figure 8.6: Gender variation for Profile 3, amounts in euro



8.101 The very high quote for Poland is mainly due to the fact that the insurer that provided the cheapest quote for Profile 1 and 2 did not provide a quote at all for this Profile. We can speculate that this is due to the riskiness of the profile. The average of the cheapest quotes obtained for this profile across all observations is €472.

Within-country variation

8.102 For a number of countries in the EU and in the USA we have also gathered quotes from different parts of the same country to explore what are the effects of location on the premiums requested. The results are summarized below:

**Table 8.5: Within country variation of quotes for Profile 3**

Country	Mean	Range	Standard deviation	Range/Mean	Coefficient of Variation
Austria	273	18	8	0.07	0.03
Belgium	465	0	0	0.00	0.00
Bulgaria	102	7	4	0.07	0.04
Cyprus	343				
Czech	369	40	23	0.11	0.06
Denmark	441	41	24	0.09	0.05
Estonia	386	0	0	0.00	0.00
Finland	287	0	0	0.00	0.00
France	1752	0	0	0.00	0.00
Germany	172	47	27	0.27	0.16
Greece	353	0	0	0.00	0.00
Hungary	117	0	0	0.00	0.00
Ireland					
Italy	669	816	352	1.22	0.53
Latvia					
Lithuania	103				
Luxembourg	340				
Malta	133				
Netherlands	249				
Poland	1712				
Portugal	155	11	5	0.07	0.03
Romania	147	15	8	0.10	0.06
Slovakia	223	0	0	0.00	0.00
Slovenia	842				
Spain	193	0	0	0.00	0.00
Sweden	266				
UK	1167	161	69	0.14	0.06
Connecticut	428	38	27	0.09	0.06
Maine					
New Jersey	692	128	57	0.19	0.08
New York	747	206	99	0.28	0.13
Pennsylvania	234	88	51	0.37	0.22
Vermont	180	23	10	0.13	0.06

Source: Europe Economics calculations

8.103 In the EU, significant variation in the sample is only seen in Italy. Very little variation is found in most of the other Member States.



- 8.104 In accordance with the results from other profiles, in Italy premiums are considerably higher in the South: in our sample the cheapest quote in Pozzuoli (near Naples) is twice as expensive as in Fiumicino (near Rome) and three times as expensive as in Legnano (near Milan). Interestingly, in Germany the cheapest quote obtained for this profile in Ratingen (West Germany) was a third more expensive than the corresponding quote in Radeburg (East Germany) (the opposite result to Profile 2, implying that idiosyncratic factors are likely to be at work).
- 8.105 There is not a great deal of variation in our sample in the American states. The greatest amount of variation can be seen in Pennsylvania.
- 8.106 No variation was found between regions in the following countries: Belgium, Estonia, Finland, France, Greece, Hungary, Slovakia and Spain.

Comprehensive Motor Insurance

- 8.107 We summarise below the main characteristics of the motor comprehensive profiles. The quotations we gathered were for a combination of M3PL **and** own damage (i.e. non-M3PL motor insurance) protection. In most markets (such as Ireland and the UK) it is not possible to purchase own damage protection separately. The profiles are repeated in full at Appendix 3.

Table 8.6: The motor comprehensive profiles

Profile		
4	Volkswagen Golf GTI	Male and Female drivers.
5	Ford Focus	Male and Female drivers.
6	Audi A4	Male and Female drivers.

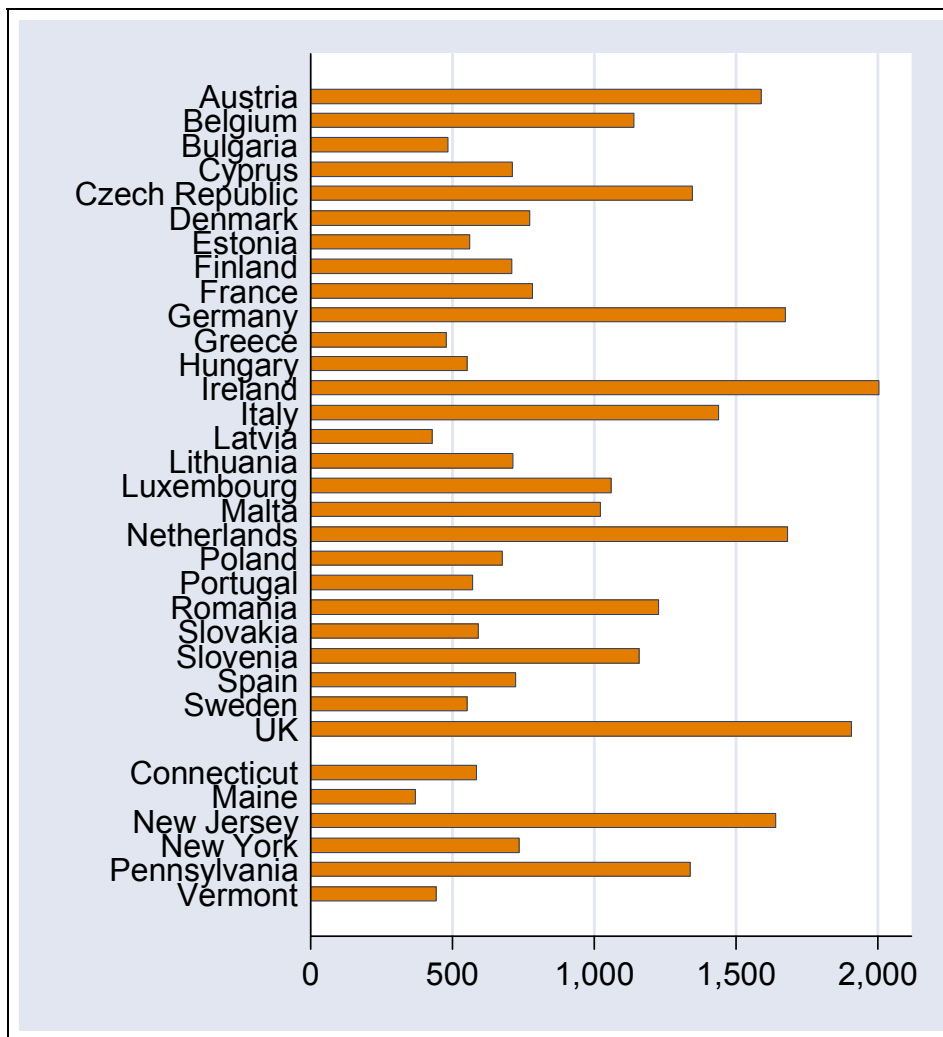
- 8.108 We set out in the following tables a summary of the coverage that we have obtained from the mystery shopping exercise.



Profile 4: Volkswagen Golf GTI

8.109 The summary of the results for Profile 4 is reported in Figure 8.7 and Figure 8.8. The policy holder for this particular profile is a 32-year-old bar manager who lives in a main city. Unsurprisingly, comprehensive insurance is considerably more expensive than third party insurance given the different level of risk exposure involved. Again, however, there is considerable variation in the level of premiums.

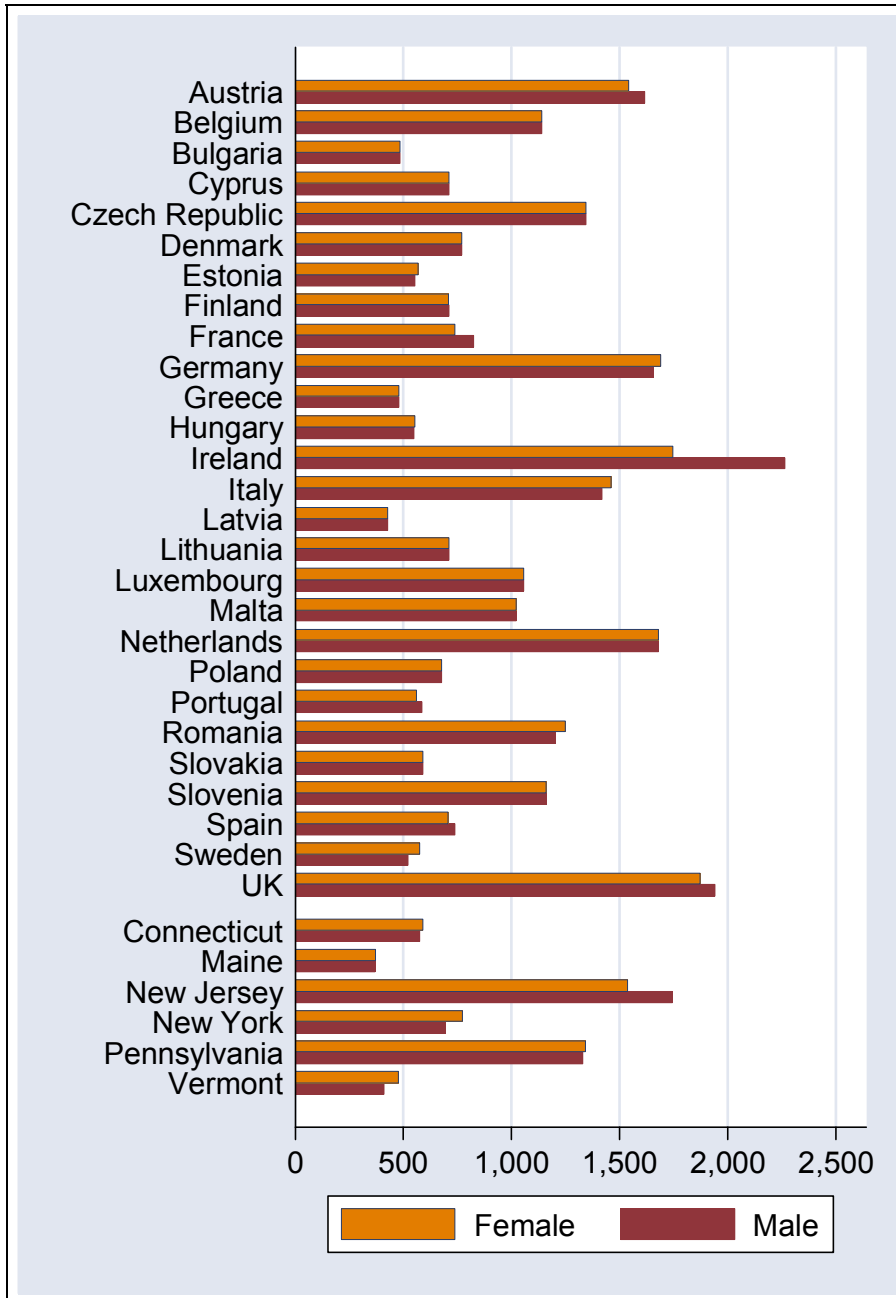
Figure 8.7: Comprehensive quote for Profile 4 (VW Golf GTI), amounts in euros



8.110 Ireland is the place where insurance for this profile is most expensive, followed by the UK and Austria. In the US, New Jersey is again particularly expensive. The cheapest quotes have been obtained in Latvia for the EU27 and in Maine in the US. It is interesting to note that gender differences appear to be substantially smaller for this profile, with the only exception being Ireland where male drivers pay a premium that is a third higher than female drivers. In some states male drivers pay a lower premium than female drivers (although the difference is small).



Figure 8.8: Gender variation for Profile 4, amounts in euro



8.111 The average of the cheapest quote obtained for this profile across all observations is €1,013.

Within-country variation

8.112 Among the countries where more than one location was used in the data gathering, differences have emerged in a number of countries. The results of our analysis are summarized in below:

**Table 8.8: Within country variation of quotes for Profile 4**

Country	Mean	Range	Standard deviation	Range/Mean	Coefficient of Variation
Austria	1589	119	46	0.07	0.03
Belgium	1142	94	54	0.08	0.05
Bulgaria	485	0	0	0.00	0.00
Cyprus	713				
Czech	1347	3	2	0.00	0.00
Denmark	772	0	0	0.00	0.00
Estonia	561	31	18	0.06	0.03
Finland	711	148	83	0.21	0.12
France	784				
Germany	1674	1177	584	0.70	0.35
Greece	480	79	41	0.16	0.08
Hungary	553	319	181	0.58	0.33
Ireland	2005				
Italy	1440	1232	556	0.86	0.39
Latvia	429				
Lithuania	714				
Luxembourg	1059				
Malta	1023				
Netherlands	1683	0	0	0.00	0.00
Poland	676	164	95	0.24	0.14
Portugal	573	25	14	0.04	0.02
Romania	1228	90	37	0.07	0.03
Slovakia	590	0	0	0.00	0.00
Slovenia	1160				
Spain	722	61	25	0.08	0.03
Sweden	552	102	42	0.19	0.08
UK	1908	685	299	0.36	0.16
Connecticut	584	12	8	0.02	0.01
Maine	371	3	2	0.01	0.01
New Jersey	1642	300	130	0.18	0.08
New York	736	79	56	0.11	0.08
Pennsylvania	1337	35	15	0.03	0.01
Vermont	444	130	63	0.29	0.14

Source: Europe Economics calculations

8.113 In the EU, as with other profiles, the largest variation can be seen in Italy, Germany and Hungary. There is very little variation in other Member States.



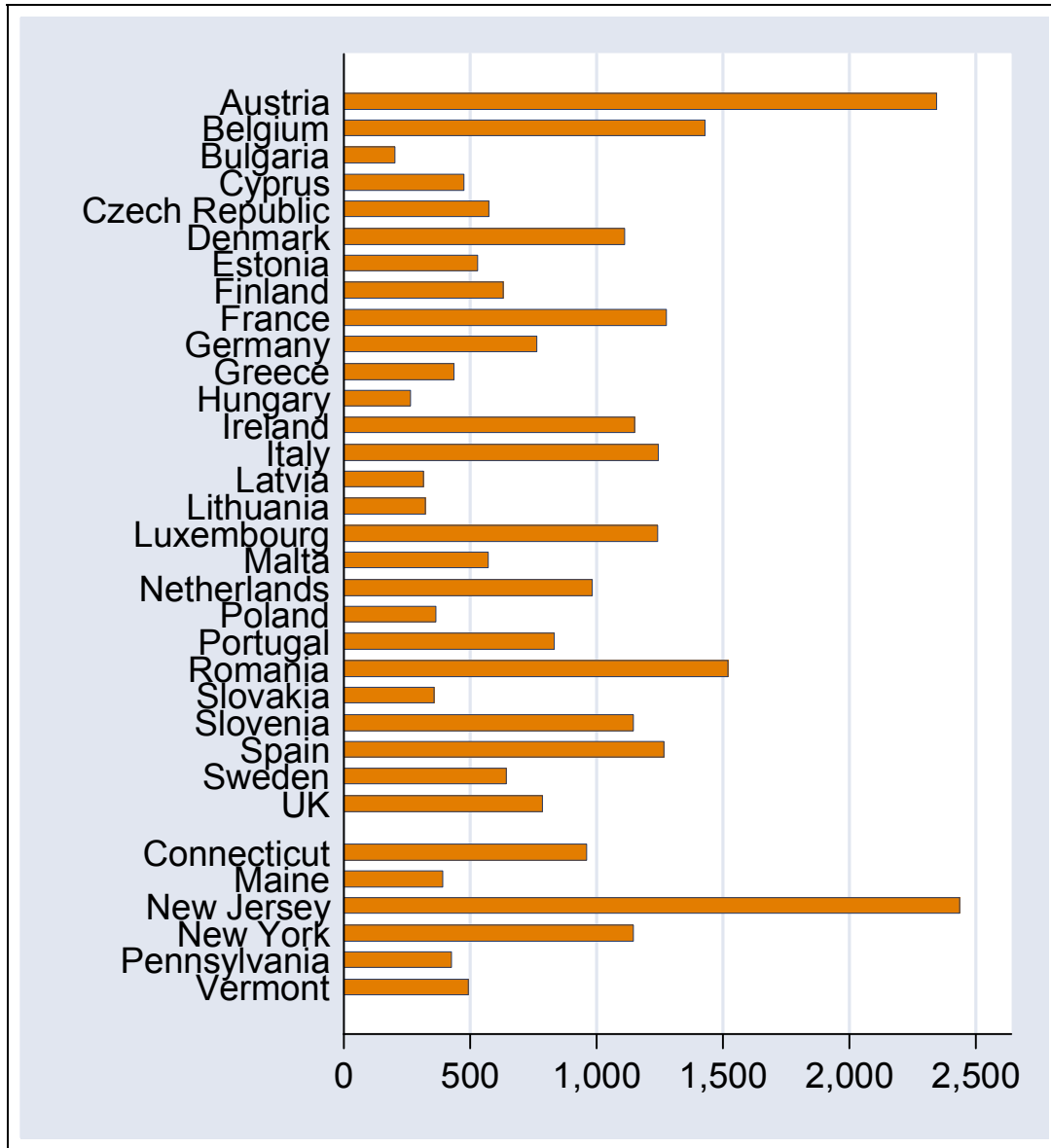
- 8.114 The cheapest quote in Naples, in Southern Italy, is more than twice as expensive as the cheapest quote in Milan and almost twice as expensive as the cheapest quote in Rome, both of which are in Northern Italy. In Hungary, the cheapest quote obtained for this profile in Budapest was considerably more expensive than the corresponding quote in Nyiregyhaza, one of the main cities in North Hungary.
- 8.115 There is not much variation in the American states. The greatest amount of variation can be seen in Vermont.
- 8.116 No variation is found between regions in the following countries: Bulgaria, Denmark, Netherlands and Slovakia.

Profile 5: Ford Focus

- 8.117 Figure 8.9 and Figure 8.10 report the results for Profile 5, a young student living in a small city. Austria is the most expensive country in Europe and New Jersey again the most expensive in the US.



Figure 8.9: Comprehensive quote for Profile 5 (Ford Focus), amounts in euro

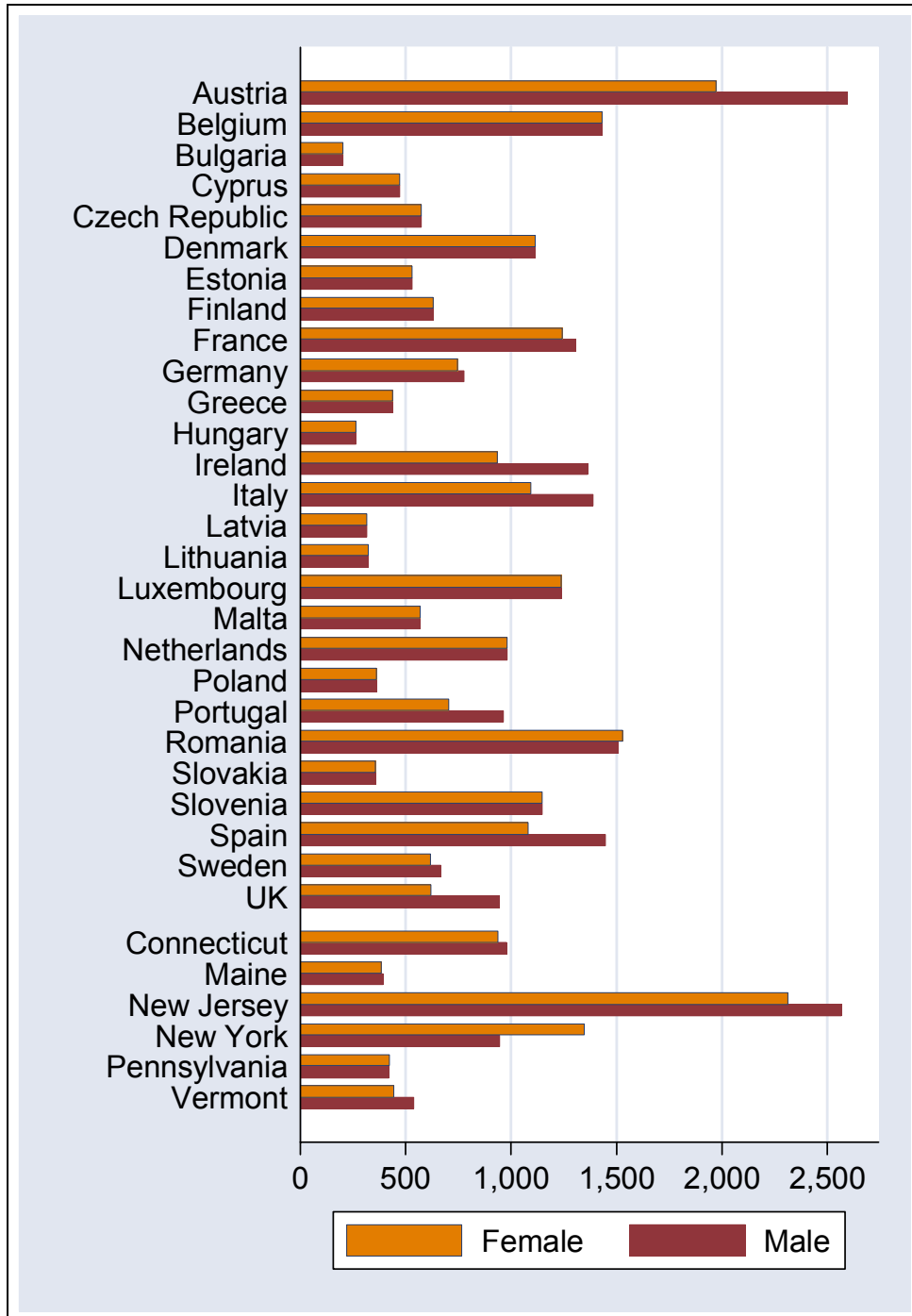


General information and average quote

8.118 For this profile we have gathered a total of 426 quotes for 112 observations. The average quote across all observations and all countries is €1,013.



Figure 8.10: Gender variation for Profile 5, amounts in euro



8.119 Gender differences are considerably more marked than for the previous profile. The youth of the driver is likely to be a major factor here. Although the relative value of the Ford Focus by comparison to the Golf is quite low (so that, all else being equal, average claims values should be lower), the mileage anticipated in this profile is much higher (so that, all else being equal, the probability of a claim should be higher). In New York, male drivers pay a considerably lower premium than female drivers.



Gender variation

8.120 The average can be decomposed into one average for male and one for female policy holders. For female policy holders we have 54 observations in total and an average of €945 while for male policy holders the observations are 58 and the average quote €1,075. There is also a difference in the variation of such quotes: the standard deviation being €581 and €712 for female and male policy holders respectively.

Within-country variation

8.121 As with the M3PL quotes we have obtained quotes across various locations in a number of countries to explore the differences present in comprehensive insurance premiums. The results are reported in Table 8.9.

8.122 Italy is again the country with the largest variation and Salerno is the city where the highest premium was quoted. The cheapest quote in Italy was again found in Mantua. Considerable variation is also found in Austria, France, Germany and the UK. In Austria Villach is more expensive than Amstetten; in France the same insurance costs twice as much in Marseille as it does in Rouen; in Germany, Kassel is considerably cheaper than Lübeck and in the UK Oxford is more expensive than Derby.

8.123 In the USA the only two states where a non-negligible variation exists are New York (where insurance in New Rochelle is more expensive than in White Plains) and New Jersey (where Trenton is slightly more expensive than Clifton).

8.124 No intra-country variation was found in the following countries: Bulgaria, the Czech Republic, Denmark, Estonia, Finland, Hungary and Slovakia.

**Table 8.9: Within country variation of quotes for Profile 5**

Country	Mean	Range	Standard Deviation	Range/Mean	Coefficient of Variation
Austria	2346	1865	834	0.79	0.36
Belgium	1431	134	78	0.09	0.05
Bulgaria	203	0	0	0.00	0.00
Cyprus	475				
Czech	576	0	0	0.00	0.00
Denmark	1114	0	0	0.00	0.00
Estonia	530	0	0	0.00	0.00
Finland	633	0	0	0.00	0.00
France	1278	827	443	0.65	0.35
Germany	764	474	204	0.62	0.27
Greece	439	20	10	0.04	0.02
Hungary	265	0	0	0.00	0.00
Ireland	1150				
Italy	1244	1347	505	1.08	0.41
Latvia	315				
Lithuania	325				
Luxembourg	1240				
Malta	573				
Netherlands	983	41.99	30	0.04	0.03
Poland	364				
Portugal	834	403	172	0.48	0.21
Romania	1519	649	363	0.43	0.24
Slovakia	358	0	0	0.00	0.00
Slovenia	1148				
Spain	1265	512	243	0.40	0.19
Sweden	642				
UK	785	549	201	0.70	0.26
Connecticut	959	44	31	0.05	0.03
Maine	391	11	8	0.03	0.02
New Jersey	2440	289	150	0.12	0.06
New York	1147	469	237	0.41	0.21
Pennsylvania	424	14	7	0.03	0.02
Vermont	493	150	63	0.30	0.13

Source: Europe Economics calculations

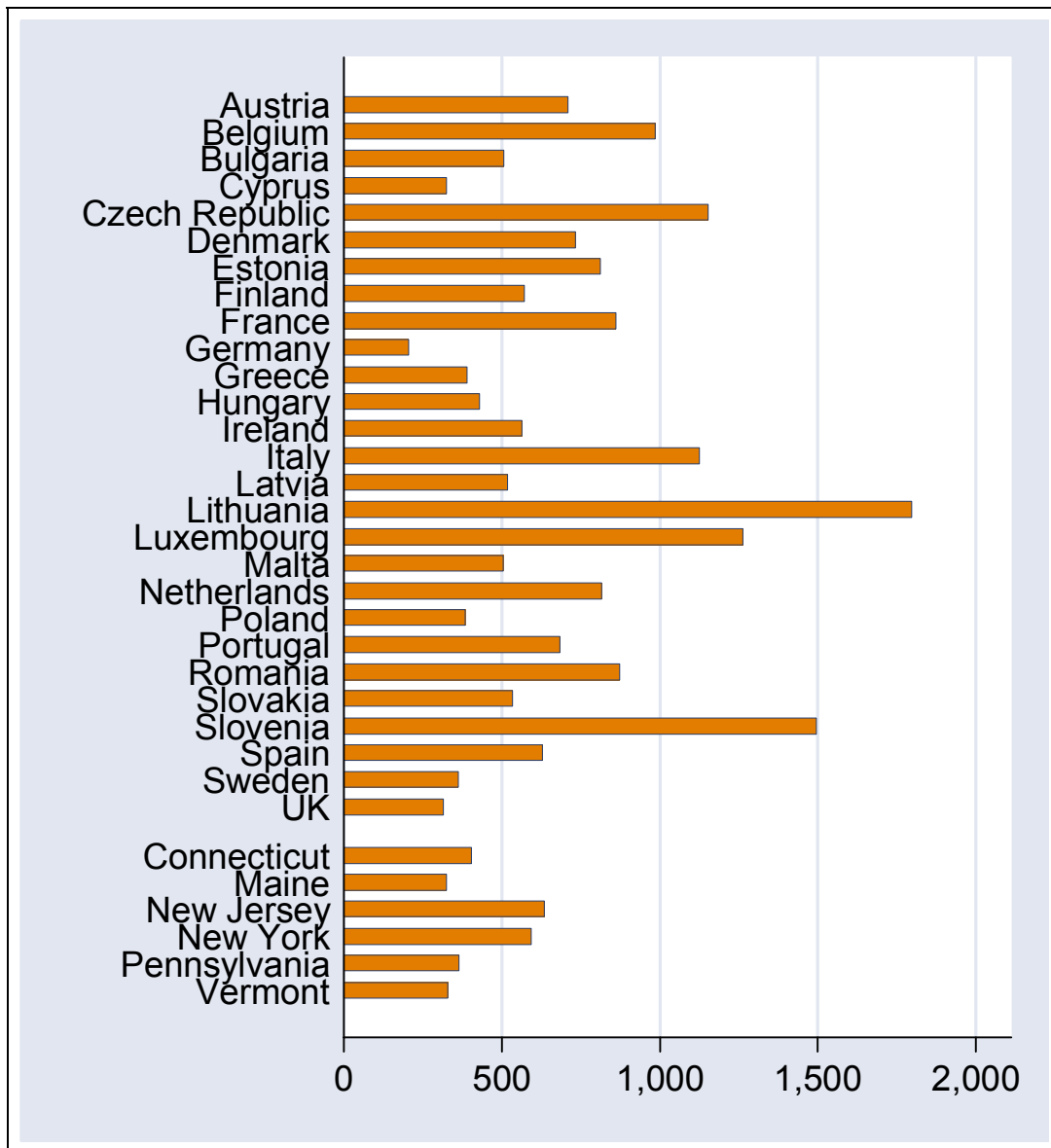
Profile 6: Audi A4

8.125 Finally for motor insurance, Figure 8.11 and Figure 8.12 summarise the results relative to Profile 6. The policy holder for this profile is a 68-year-old driver living in a suburban area.



Surprisingly (and, indeed, somewhat perversely), Lithuania is the Member State where insurance is most expensive for this profile, at around €1,800; Germany is the country where the cheapest quote is found.

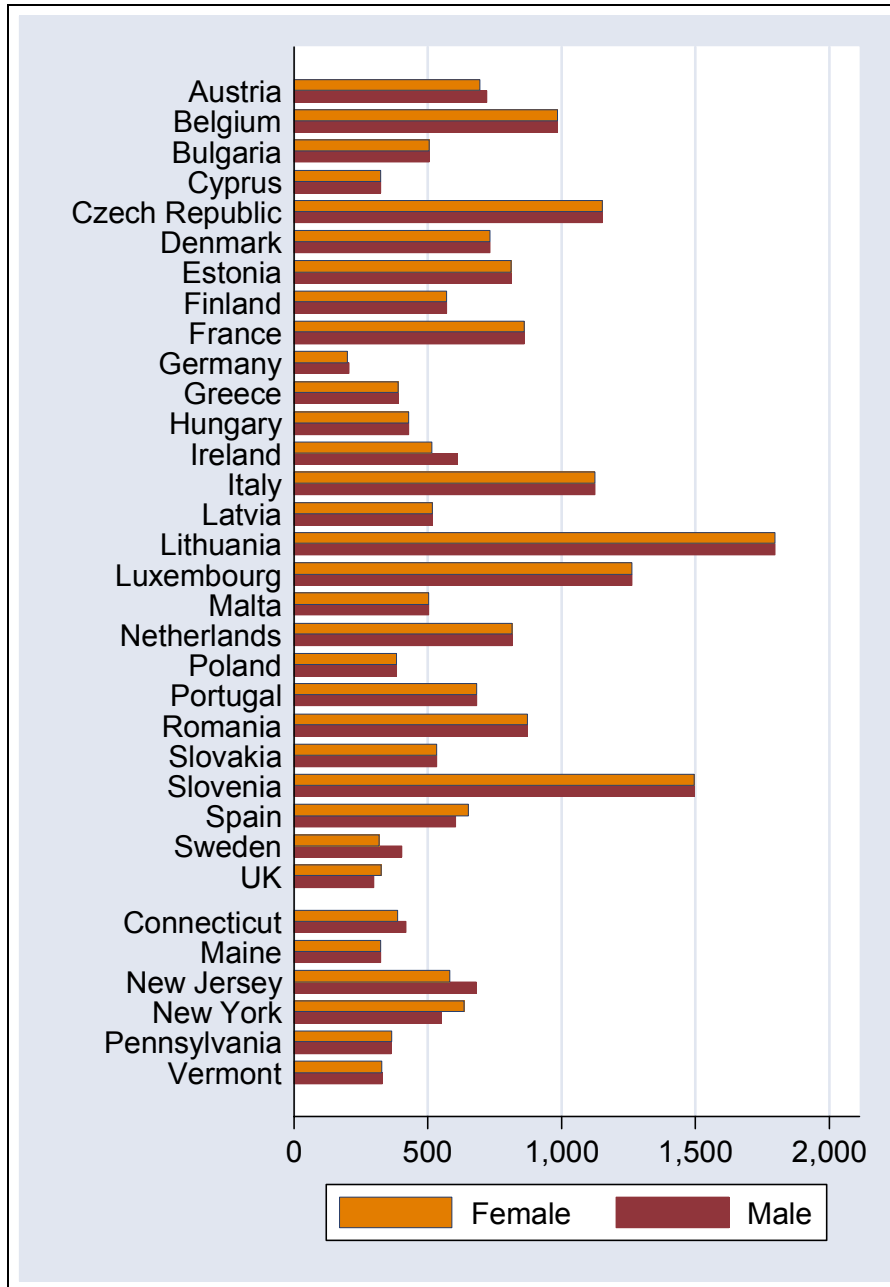
Figure 8.11: Comprehensive quote for Profile 6 (Audi A4), amounts in euro



8.126 As for Profile 4 and in contrast to Profile 5, gender differences are minimal for this Profile. This is in line with expectations — gender differences are most marked below the age of 35 (see Sections 4 and 5) and are not at all clear cut by the age of 68 (indeed, in some data sets, the differentiation may even reverse). In most countries the riskiness of old drivers depends only marginally on gender and in three cases (i.e. Spain, the UK and New York) “old” male drivers pay a lower premium than “old” female drivers.



Figure 8.12: Gender variation for Profile 6, amounts in euro



8.127 The average of the cheapest quote obtained for this profile across all observations is €645.

Within-country variation

8.128 Among the countries where more than one location was used in the data gathering, the results of our analysis are summarized below.

**Table 8.10: Within country variation of quotes for Profile 6**

Country	Mean	Range	Standard Deviation	Range/Mean	Coefficient of Variation
Austria	711	74	33	0.10	0.05
Belgium	988	0	0	0.00	0.00
Bulgaria	507	0	0	0.00	0.00
Cyprus	325				
Czech	1154	2	1	0.00	0.00
Denmark	735	22	12	0.03	0.02
Estonia	811				
Finland	573	44	25	0.08	0.04
France	861	10	6	0.01	0.01
Germany	204	131	56	0.64	0.27
Greece	391	0	0	0.00	0.00
Hungary	428	0	0	0.00	0.00
Ireland	563				
Italy	1125	1030	507	0.92	0.45
Latvia	517				
Lithuania	1800				
Luxembourg	1264				
Malta	506				
Netherlands	815	68	48	0.08	0.06
Poland	383				
Portugal	685	41	24	0.06	0.03
Romania	874	11	6	0.01	0.01
Slovakia	536	0	0	0.00	0.00
Slovenia	1498				
Spain	629	181	85	0.29	0.13
Sweden	361				
UK	314	98	36	0.31	0.11
Connecticut	403	33	24	0.08	0.06
Maine	327				
New Jersey	633	213	88	0.34	0.14
New York	594	111	50	0.19	0.09
Pennsylvania	367	122	70	0.33	0.19
Vermont	331	4	2	0.01	0.01

Source: Europe Economics calculations

8.129 In the EU, a similar pattern emerges as with the other profiles. The largest variation can be seen in Italy, followed by Germany with limited variation elsewhere.



- 8.130 Again, conforming to the trend seen with other profiles the cheapest quote in Naples, in Southern Italy, is twice as expensive as the cheapest quote in both Milan and Rome. In Germany, the cheapest quote obtained for this profile in Vaihingen (close to Stuttgart) was considerably cheaper than the corresponding quote in Bad Soden (close to Frankfurt am Main).
- 8.131 In the USA, the largest variation is in Pennsylvania and New Jersey. There is not much variation in the other states, and there is no variation for Maine in our sample.
- 8.132 No variation is found between regions in the following countries: Belgium, Bulgaria, Greece, Hungary and Slovakia.

Home Insurance

- 8.133 We summarise below the main characteristics of the property profiles. These are repeated in full at Appendix 4.

Table 8.11: The home property profiles

Profile		
7	Urban apartment	Buildings and contents combined. Contents only (it was anticipated — as indeed was the case — that buildings insurance would not be universally available for an individual apartment as the liability may be unclear)
8	Detached rural house	Buildings and contents combined.
9	Semi-detached, suburban house	Buildings and contents combined.

- 8.134 We set out in the following tables a summary of the coverage that we have obtained from the mystery shopping exercise.



Table 8.12: Coverage of Home Property Profiles

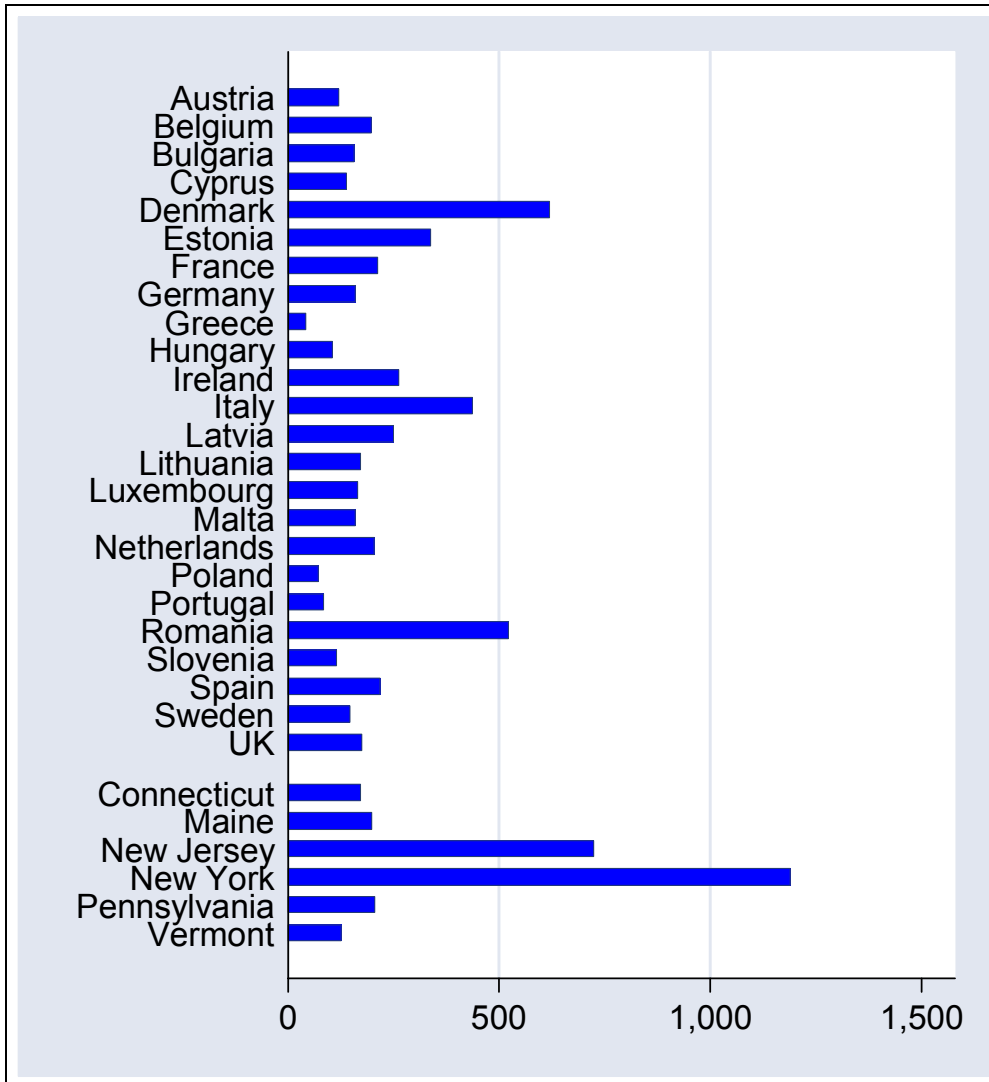
	7: Apartment		8: Rural house	9: Suburban house
	B&C	C	B&C	B&C
Austria	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Belgium	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Bulgaria	Medium Blue	White	Medium Blue	Medium Blue
Cyprus	Medium Blue	Medium Blue	Medium Blue	Medium Blue
Czech Republic	White	Medium Blue	White	White
Denmark	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Estonia	Medium Blue	Dark Blue	Dark Blue	Dark Blue
Finland	White	Dark Blue	Dark Blue	Dark Blue
France	Medium Blue	White	Medium Blue	Medium Blue
Germany	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Greece	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Hungary	Dark Blue	Medium Blue	Dark Blue	Dark Blue
Ireland	Medium Blue	Dark Blue	Medium Blue	Medium Blue
Italy	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Latvia	Medium Blue	Medium Blue	Light Blue	Light Blue
Lithuania	Medium Blue	White	Medium Blue	Medium Blue
Luxembourg	Medium Blue	Medium Blue	Medium Blue	Medium Blue
Malta	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Netherlands	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Poland	Medium Blue	Dark Blue	Medium Blue	Medium Blue
Portugal	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Romania	Medium Blue	Dark Blue	Medium Blue	Medium Blue
Slovakia	White	Dark Blue	White	White
Slovenia	Medium Blue	Dark Blue	Medium Blue	Medium Blue
Spain	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Sweden	Dark Blue	Dark Blue	Medium Blue	Medium Blue
United Kingdom	Dark Blue	Dark Blue	Dark Blue	Dark Blue
USA				
Connecticut	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Maine	Dark Blue	Dark Blue	Dark Blue	Dark Blue
New Jersey	Dark Blue	Dark Blue	Dark Blue	Dark Blue
New York	Dark Blue	Dark Blue	Dark Blue	Dark Blue
Pennsylvania	Dark Blue	White	Dark Blue	Dark Blue
Vermont	Dark Blue	Medium Blue	Dark Blue	Dark Blue

Profile 7: Urban apartment (combined property insurance and contents only cover)

8.135 Figure 8.13 and Figure 8.14 report the results for Profile 7. For profile 7 we have gathered quotes for buildings and contents insurance and for contents insurance only (however, the sample is somewhat smaller in the latter case).



Figure 8.13: Quotes for Profile 7 (Urban apartment), amounts in euro

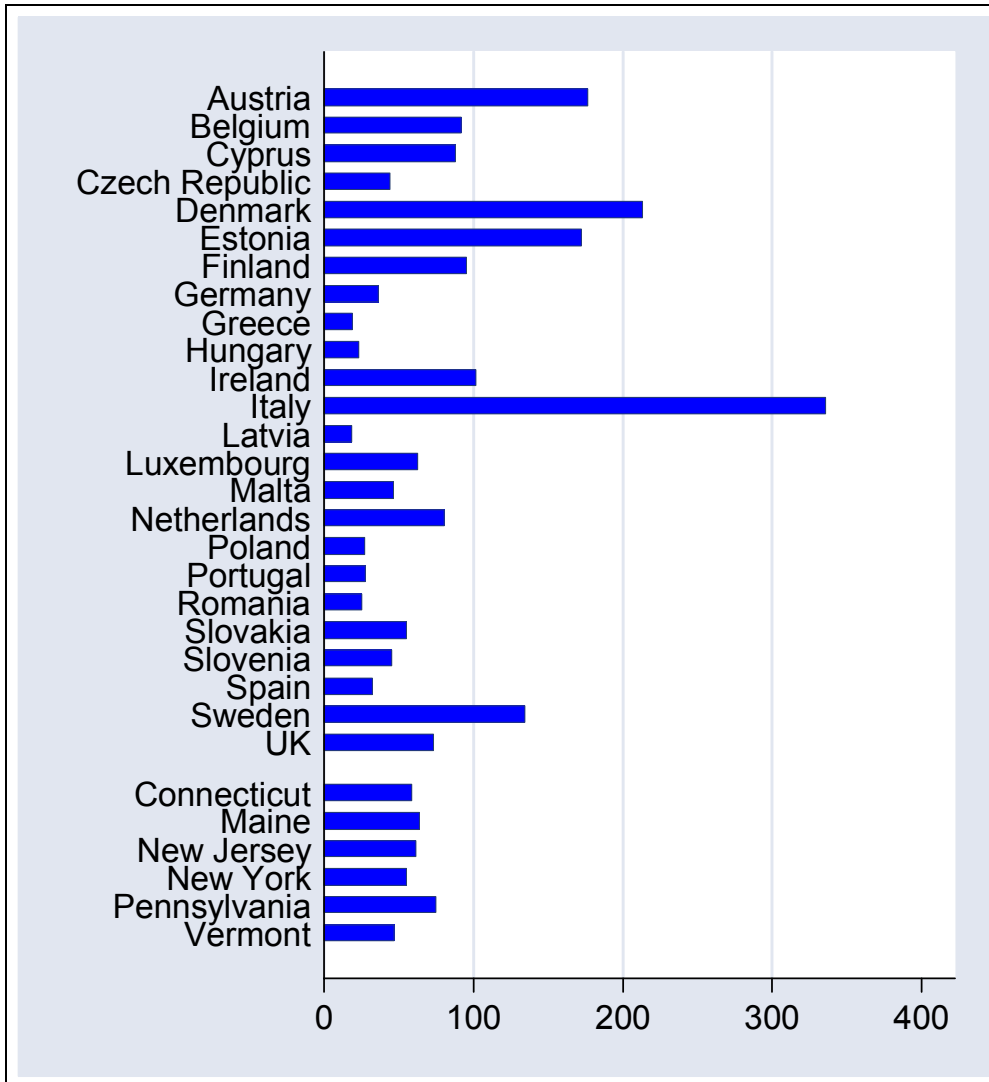


8.136 The quotes for Profile 7 are skewed because of the presence of the state of New York in the sample: Manhattan is, by far, the most expensive place to get property insurance.

8.137 When considering the “contents only” quotes it is striking to see that Italy is the most expensive place by some distance. However, we only have two quotes for Italy and it is possible that we have missed the most competitive companies. The very high premium is unlikely to be due to the geographic location of flats as both quotes have been gathered for apartments in “less risky” areas of the country.



Figure 8.14: Quotes for contents only for Profile 7 (Urban apartment), amounts in euro



8.138 For this profile we have gathered quotes for both the building and contents insurance and for contents insurance only. As specified above in some countries building insurance is not easily available for this type of dwelling and it is our opinion that comparing the price of contents insurance only would provide interesting information since that product can be considered reasonably standardised across the EU and the USA.

General information and average quote

8.139 This profile refers to an urban apartment, located in the centre of a major city that is 100m² and in good condition. The value of the apartment is different in each country and has been determined by us on the basis of the information available in various Member States. The level of coverage for contents has been assumed to be equal to per capita GDP in each country.



8.140 For this profile we have gathered 345 quotes which translate to 105 observations. The average of the cheapest quotes obtained is €173 and the corresponding standard deviation €209.

Buildings and contents versus contents only insurance

8.141 The number of observations can be further disaggregated: 196 quotes (and 49 observations) refer to the full insurance, the rest are relative to the contents only insurance. Similarly the mean for the full coverage is €256 (standard deviation €252) and the one for contents only coverage is €79 (standard deviation €70).

8.142 Therefore, according to these data, the share of the premium attributable to contents is slightly less than a third of the total. However, there is considerable variation in the various countries in this respect. As reported in Table 8.13 the premium for contents cover represent as little as 7 per cent of the total premium in Romania and as much as 91 per cent of the premium in Sweden¹²⁷ reflecting both the different value of similar property across the EU 27 and the different levels of risk.

8.143 In the US contents represents, on average, a smaller percentage of the overall premium. This is due to the considerably higher price of building insurance in New York and New Jersey rather than to low content premiums.

¹²⁷ The ratio is even higher in Austria — this is due to the fact that we have only been able to get a single quote for contents only insurance which was higher than the cheapest quote obtained for the full cover insurance.

**Table 8.13: Share of contents premium on total premium in EU countries**

Country	Percentage
Belgium	47%
Cyprus	63%
Denmark	34%
Estonia	51%
Germany	22%
Greece	43%
Hungary	23%
Ireland	39%
Italy	77%
Latvia	7%
Luxembourg	38%
Malta	29%
Netherlands	39%
Poland	38%
Portugal	32%
Romania	5%
Slovenia	39%
Spain	15%
Sweden	91%
UK	42%
Connecticut	34%
Maine	32%
New Jersey	9%
New York	5%
Pennsylvania	36%
Vermont	37%

Source: Europe Economics calculations

Within-country variation

8.144 As for motor insurance, we gathered quotes in different locations within the same Member State to assess the degree of variation of insurance premiums.

8.145 As reported in Table 8.14 the country where there is more variation for the full quote is Pennsylvania in the US and Italy in the EU. In the latter case, in Naples property insurance is almost three times as expensive as it is in Milan and Rome. Considerable variation is also present in the UK, where Manchester is considerably more expensive than London, the Netherlands where The Hague is more expensive than Amsterdam, Germany, where Hamburg is more expensive than Munich and in Hungary, where Budapest is more expensive than Debrecen.

**Table 8.14: Within country variation of quotes for Profile 7**

Country	Full Cover			Contents only		
	Mean	St Dev	Coef. of Variation	Mean	St Dev	Coef. of Variation
Austria	121	0	0.00	176		
Belgium	197	20	0.10	92	34	0.37
Bulgaria	158					
Cyprus	140			88		
Czech Republic				44	8	0.18
Denmark	621	17	0.03	213		
Estonia	339			172		
Finland				96	8	0.08
France	212					
Germany	161	36	0.22	36	14	0.39
Greece	44	0	0.00	19	0	0.00
Hungary	106	25	0.24	24		
Ireland	263			102		
Italy	437	229	0.52	336	0	0.00
Latvia	252			18		
Lithuania	174					
Luxembourg	165			62		
Malta	161			47		
Netherlands	205	47	0.23	80	20	0.25
Poland	71			27		
Portugal	84	5	0.06	27	0	0.00
Romania	522			26		
Slovakia				56	0	0.00
Slovenia	115			45		
Spain	219	6	0.03	32	0	0.00
Sweden	147	14	0.10	134	31	0.23
UK	177	50	0.28	74	12	0.16
Connecticut	174	33	0.19	59	3	0.05
Maine	198	0.6	0.00	64	2	0.03
New Jersey	724	43	0.06	62	3	0.05
New York	1192	380	0.32	56	4	0.07
Pennsylvania	141	76	0.54			
Vermont	127	0	0.00	47		0.00

Source: Europe Economics calculations

8.146 When the contents only quotes are examined Germany is the place with the most variation and Hamburg the most expensive city. Other countries with considerable



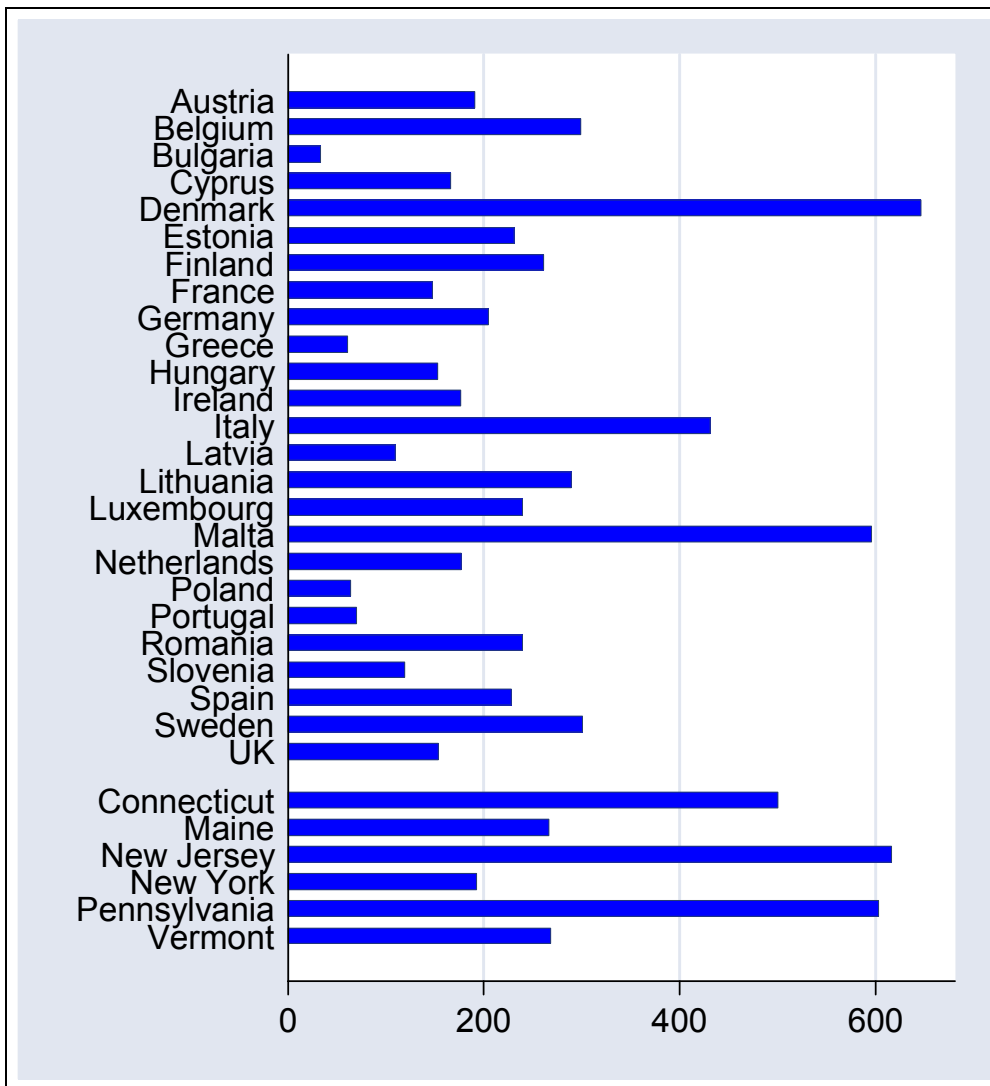
variation are Belgium (where Brussels is much more expensive than Antwerp) and the Netherlands where the order of cities is reversed: Amsterdam being more expensive than The Hague.

8.147 No variation was found in Austria, Greece (neither for the combined or contents only quotes), Italy (contents only), Portugal (contents only), Slovakia (contents only) or Spain (contents only).

Profile 8: Rural house

8.148 Figure 8.15 illustrates the results for Profile 8, which shows significant variation: Denmark and Malta being the most expensive countries in Europe and New Jersey and Pennsylvania the most expensive places in the US.

Figure 8.15: Quotes for Profile 8 (rural house), amounts in euro





General information and average quote

8.149 The average of the cheapest quote obtained for this profile across all observations is €266.

Within-country variation

8.150 Within-country variation is summarised below.

**Table 8.15: Within country variation of quotes for Profile 8**

Country	Mean	Range	Standard Deviation	Range/Mean	Coefficient of Variation
Austria	191	0	0	0.00	0.00
Belgium	299	51	36	0.17	0.12
Bulgaria	34				
Cyprus	166				
Czech					
Denmark	647				
Estonia	232	137	97	0.59	0.42
Finland	262	54	38	0.21	0.15
France	148				
Germany	205	13	9	0.06	0.04
Greece	61	0	0	0.00	0.00
Hungary	153	0	0	0.00	0.00
Ireland	177				
Italy	432	890	505	2.06	1.17
Latvia	111				
Lithuania	290				
Luxembourg	240				
Malta	597				
Netherlands	177	10	7	0.06	0.04
Poland	64				
Portugal	70	0	0	0.00	0.00
Romania	240				
Slovakia					
Slovenia	72				
Spain	228	6	4	0.02	0.02
Sweden	302				
UK	154	5	3	0.03	0.02
Connecticut	501	102	72	0.20	0.14
Maine	267	1	1	0.00	0.00
New Jersey	617	310	219	0.50	0.36
New York	193	94	67	0.49	0.35
Pennsylvania	604	586	414	0.97	0.69
Vermont	269	51	36	0.19	0.13

Source: Europe Economics calculations

8.151 As with profile 7 discussed above, the most variation can be seen in Pennsylvania in the USA and Italy in the EU. In the latter case, in Salerno (south Italy) property insurance is seven times as expensive as it is in Pavia (north Italy) and eight times more expensive



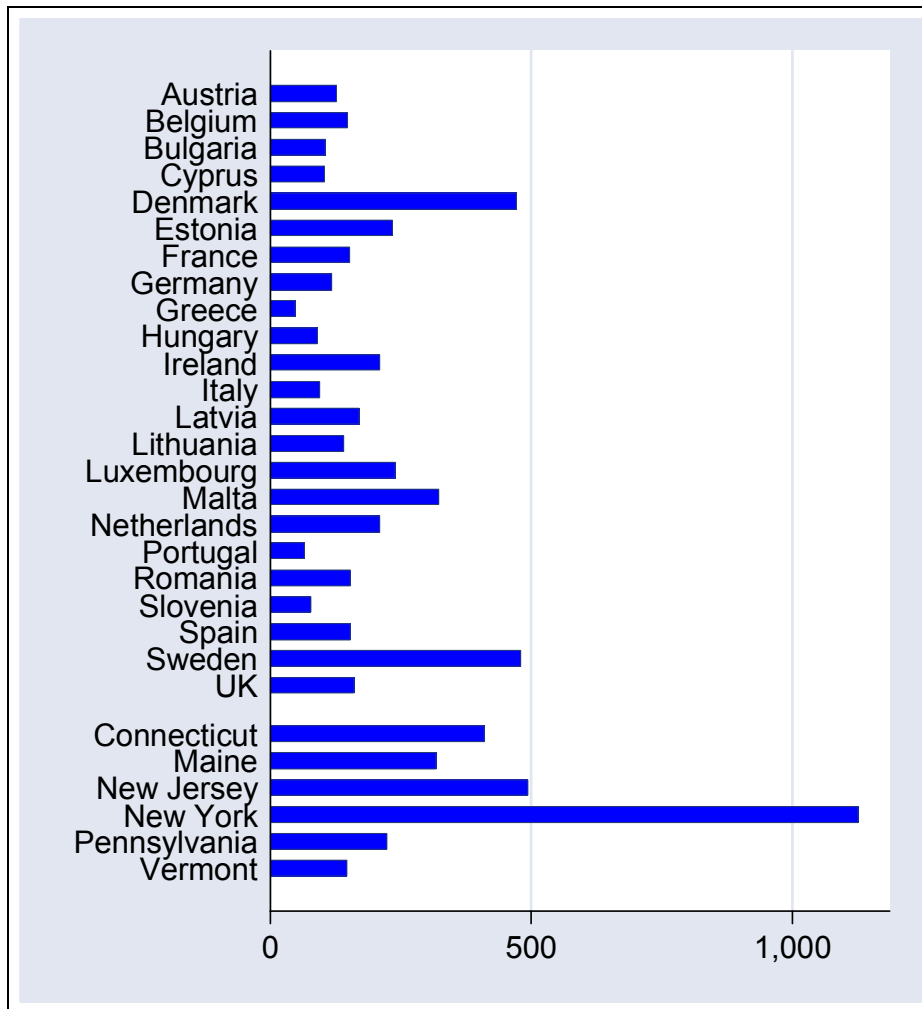
than in Latina (near Rome). Considerable variation is also present in Estonia, where Paide is nearly twice as expensive as it is in Haljale.

8.152 No regional variation was identified in Austria, Greece, Hungary and Portugal.

Profile 9: Suburban house

8.153 Figure 8.16 illustrates the results for the suburban, semi-detached house. Again the presence of New York City skews the results; Denmark remains expensive as does Malta which is, however, overtaken by Sweden as the second most expensive place in Europe.

Figure 8.16: Quotes for Profile 9 (suburban house), amounts in euro



8.154 The average of the cheapest quote obtained for this profile across all observations is €222.



Within-country variation

- 8.155 We have gathered quotes in different locations within the same Member State to assess the degree of variation of insurance premiums.
- 8.156 There is not a lot of variation within countries for any of the Member States or American States for this profile. Most variation can be seen in the UK, where the cheapest quote for the suburbs of London was 50 per cent more expensive than for the suburbs of Birmingham. The variation in Italy and Hungary is rather less than in the other profiles. Those countries without apparent regional variation in our sample were Austria, Greece and Portugal.
- 8.157 In the USA, there is a similar level of variation in Connecticut, New Jersey, Pennsylvania and Vermont.

**Table 8.16: Within country variation of quotes for Profile 9**

Country	Mean	Range	Standard Deviation	Range/Mean	Coefficient of Variation
Austria	128	0	0	0.00	0.00
Belgium	148	24	17	0.16	0.12
Bulgaria	106				
Cyprus	105				
Czech					
Denmark	472				
Estonia	234				
Finland	86	4	3	0.05	0.04
France	153				
Germany	119	6	4	0.05	0.04
Greece	48	0	0	0.00	0.00
Hungary	90	27	19	0.30	0.22
Ireland	210				
Italy	96	21	15	0.22	0.16
Latvia	170				
Lithuania	142				
Luxembourg	240				
Malta	324				
Netherlands	211	14	10	0.07	0.05
Poland	89				
Portugal	65	0	0	0.00	0.00
Romania	154				
Slovakia					
Slovenia	54				
Spain	155	9	4	0.06	0.02
Sweden	480				
UK	161	69	49	0.43	0.30
Connecticut	410	147	104	0.36	0.25
Maine	319	5	3	0.01	0.01
New Jersey	493	206	146	0.42	0.30
New York	1126	55	39	0.05	0.03
Pennsylvania	225	75	53	0.33	0.24
Vermont	147	62	44	0.42	0.30

Source: Europe Economics calculations



The Results of our Econometric Analysis

- 8.158 As part of our study we have conducted an econometric analysis of the data gathered across the EU and the selected US states to see whether some country-specific (or region-specific) characteristics were capable of explaining the differences in (net of tax) premiums paid across the EU.
- 8.159 The technicalities are explained in Appendix 1 to this report. Below we only present our results.
- 8.160 However it is worth reminding the reader that econometrics is not an exact science. The results that one obtains depend on the quality of the data as well as on the quality of the model. Sometimes the results can be counterintuitive because a particular phenomenon is very difficult to capture on the basis of an indicator (e.g. the degree of competition in the market).
- 8.161 In other cases indicators may be available for some countries and not in others or differences in the way in which indicators are calculated in different countries may well be present. Therefore, the results of econometric models should always be interpreted on the basis of economic theory rather than purely on the basis of statistical correlations.

Motor insurance

Density and conditions of the road

- 8.162 In order to see whether the density and conditions of roads have an impact on premiums we have used mainly three variables: the total length of the road network, the share of motorways over the total network and the population density.
- 8.163 These variables are all associated with higher premiums when the M3PL quotes are taken into account. However, they do not appear to influence premiums for comprehensive cover. This may be due to the fact that comprehensive insurance is a more complex product than third party liability and hence it is more difficult to identify specific drivers. Unsurprisingly the effects when all the quotes are considered simultaneously are less robust than in the third party case but are still present.
- 8.164 We can conclude that the density and conditions of roads are an important factor that determines insurance premiums, probably as they are closely associated with the level of claims in any geographic location.

Road safety measures

- 8.165 We have considered different measures in our analysis: speed limits, blood alcohol limits, the minimum age at which a driving licence can be obtained and the share of people using seatbelts.



- 8.166 There is no robust evidence that these factors have an influence on the level of premiums: although some of the variables are statistically significant (and associated with higher premiums in all but one instance) in the non cluster robust regressions the significance disappears when the cluster nature of the data is accounted for in all cases.
- 8.167 There are two possibilities of why this might happen: the first is that these variables are used only in a subset of states and therefore the effect on the average quote is minimal, or there may be other factors (again in a subset of states) correlated with these variables that are driving the result.
- 8.168 Overall however there is no evidence that road safety measures have an effect on the average level of premiums.

Driver's habits and characteristics

- 8.169 The regressions show that among all the explanatory variables used the experience of the driver (calculated as age minus the minimum age at which a driving license can be obtained) is the most robust one. When all motor quotes are considered together every additional year of experience reduces the average premium by approximately 1.6 per cent.
- 8.170 A characteristic that is usually thought to be important is the gender of the driver. However in our sample there is very limited evidence that men pay, on average, higher premiums than women. This is the case only when all quotes are considered together and an average of the three cheapest quotes is used as the dependent variable.
- 8.171 In addition to the simple use of a dummy variable to identify male drivers within our sample we have also used a dummy variable that identifies those Member States that allow policies to vary between male and female drivers, as well as an interaction term between the two.
- 8.172 In this case there is some evidence that in countries where insurance companies do differentiate on price then male drivers pay a premium which is, on average, between 8 and 9 per cent higher than female drivers.
- 8.173 Although not specifically a "habit" we have also tested whether the (estimated) share of uninsured vehicles had an impact on premiums. Given the existence of funds to compensate road users involved in accidents where the other party is not covered by insurance it may be expected that a higher percentage of uninsured vehicles would be associated with higher premiums. However the evidence in this regard is very weak and the variable is never significant in the cluster-robust regressions.
- 8.174 Finally, since for profile 2 we have gathered quotes for a native policy holder as well as for a foreign policy-holder we have also tested whether the effect of nationality was present. However the variable proved not to be statistically significant. There are very few countries that differentiate on the basis of nationality and, those that do differentiate, usually have a good reason to do it: in most cases this is due to the side of the road



where vehicles are driven (left versus right-handside) and in Germany it is likely to be due to the absence of speed limits on some autobahns.

Accidents and fatalities in absolute and relative figures

- 8.175 We have used a number of separate variables to measure the effects of accidents. They are the number of accidents, the number of fatalities and the number of accidents due to drinking. All these variables have been used both as a total number and as the number per 1,000 population. In addition we have used the number of non-fatal injuries.
- 8.176 There is strong evidence that, for M3PL quotes, the number of fatalities (both in absolute and relative terms) and the number of accidents (in absolute terms) increase the average premium. Weaker evidence is also present for the number of accidents in relative terms, the number of accidents due to drinking in both absolute and relative terms and the number of non-fatal injuries.
- 8.177 These results are similar but weaker when all the quotes are considered together and this is due to the fact that comprehensive quotes do not seem to be influenced at all by these factors.
- 8.178 Thus, to summarise, these variables appear to have an effect only on the third party part of the quote.

Number of cars per capita

- 8.179 There is weak evidence that car density is associated with higher premiums: significance disappears when the standard errors are calculated taking into account the within country correlation of the quotes.

Claims expenditure and scope of insurance cover

- 8.180 We have used a measure of per capita health expenditure, the statutory minimum cover for persons and materials, the wage of vehicle repair workers (and also that of bricklayers as a proxy for vehicle repair costs, as we have this data relating to a greater number of countries) and the wage of insurance agents in our analysis.
- 8.181 Health expenditure is positively associated with higher premiums only when third party only quotes are considered and not when the full sample or the comprehensive quotes only are taken into account.
- 8.182 No effect at all seems to be present for the statutory minimum cover for both persons and materials. This is likely to be because the minimum is usually not a constraint: in several



countries insurance policies offered cover in excess of the minimum level. In addition, the overwhelming majority of the claims do not even get close to the required minimums.

- 8.183 Garage repairmen wages (which have been used as a proxy for repair costs)¹²⁸ are not associated with higher premiums, whether this is due to the fact that they are a bad proxy for repair costs or to the genuine lack of a relationship is difficult to say based upon the econometric results alone.
- 8.184 Somewhat surprisingly, higher insurance agent wages seem to be associated with lower premiums in comprehensive covers and when the full sample is used together. This result is difficult to interpret from an economic point of view.

Distribution channels and competition

- 8.185 We have used a number of measures of concentration in the market (CR5 and the HHI), measures of M&A activities, the percentage of re-insurance and the share of insurance that is sold directly by insurers and by independent intermediaries.
- 8.186 The competition-related variables show that there is some evidence that where the market is more concentrated premiums are, on average, lower than elsewhere. This is likely to be due to the fact that the scale of operation of insurance companies is an important determinant of their efficiency. It also implies that there does not seem to be a risk of collusion that is detrimental for welfare. The negative relationship is considerably stronger for M3PL than for comprehensive quotes.
- 8.187 Premiums are higher where M&A activity has been higher over the last ten years or so. This result is robust to a number of different definitions of “M&A”. Whether only domestic or foreign are considered and whether they are defined in absolute terms or on a per operator basis.
- 8.188 The most likely interpretation of this fact is that where premiums are higher domestic and foreign players are spotting an opportunity to increase their profits and are thus acquiring existing companies. Thus the causal relationship would go in the opposite direction: it is not that a high level of M&A activity causes premiums to go up but rather high premiums encourage M&A. The relationship is present for all quotes third party, comprehensive and the full sample but is weaker when the comprehensive quotes only are considered.
- 8.189 Finally, for the comprehensive segment of the market a higher market share of intermediaries is associated with higher premiums.

¹²⁸ We also used bricklayer wages — not, obviously, because we anticipated a direct link, but instead because we had more confidence in the dataset extracted from the International Labour Organisation’s database with respect to bricklayer wages (due to greater breadth and depth of coverage) and judged that as another form of skilled manual labour it would conceivably act as an effective proxy.



General economic conditions

- 8.190 Unsurprisingly, countries with a higher per capita GDP are characterised by higher insurance premiums. This is likely to be due to the fact that the average value of cars insured is generally higher in richer economies and thus insurance premiums are, *ceteris paribus*, higher. This is also confirmed by the fact that when a dummy for the CEE Member States is added to the regression it is significant (for third party quotes) and negative.
- 8.191 A robust negative relationship is also present between the long term government bond yield and the level of third party quotes. This can be explained by the fact that, when interest rates are high insurers earn more on their cash holdings and can therefore have lower premiums. An alternative explanation is that a higher interest rate reduces the value of future claims and hence reduces the cost of insurance companies. A third explanation is that this result could simply be due to the fact that in the CEE Member States (where quotes are cheaper) usually have higher government bonds yields as they are perceived to be more risky (and this was especially true when the quotes were gathered, during the ongoing impact of the credit crunch).

Other factors

- 8.192 Other factors that are associated with either higher or lower premiums are the level of excess, the standard deviation of the three cheapest quotes and the power of the car. A higher excess usually reduces the premium (but the relationship is not as robust as one might hope).
- 8.193 The standard deviation of the quotes can be interpreted as a measure of uncertainty and suggests that those countries where premiums are higher also experience more variable quotes. It is even more important for consumer to shop around and find the best deal in these cases.
- 8.194 Unsurprisingly, the more powerful the car the more expensive the insurance. This variable is one of the few that is more robust for the comprehensive quotes than it is for third party quotes.
- 8.195 Finally there is also weak evidence that those countries that allow gender differentiation have, on average, higher premiums for third party insurance policies.

Home insurance

- 8.196 Overall, home insurance quotes seem to be quite “standard” and we have been unable to find many additional factors that either increase or decrease the premium.

Material used for buildings

- 8.197 In the models we estimated none of the variables related to the materials used to build the house had a statistically significant effect on the premium. All the profiles we developed



however used common building materials and it is possible that more variation would be experienced if less standard materials were used in the construction process.

Share of population living in different types of accommodation

8.198 We have included in our models the share of urban population and the population density as potential explanatory variables. These variables should provide measures of the likely size of a claim, as more urbanised states are usually richer, as well as the likelihood of a claim to take place.

8.199 Both these variables are associated with higher premiums when the building and contents quotes are considered but are insignificant when the contents only quotes are taken into account.

Claims expenditure and scope of insurance cover

8.200 Bricklayers' wages, as a proxy for construction and repair costs, and insurance agents' wages are all strongly significant and have a positive effect on the quotes.

8.201 For the home insurance models such results are the most robust among the regressions we have performed. The cost associated with claims is clearly an important determinant of its price.

Distribution channels and competition

8.202 There are no variables in this area that have an effect on home insurance premiums. Distribution channels and concentration measures are all insignificant in the regressions.

Other factors

8.203 There are a number of other factors that we have attempted to take into account: the number of burglaries in the region of the property, the number of floods and the number of fires.

8.204 Unfortunately these variables are either insignificant or have the "wrong" sign. This is the case for regional burglaries and floods in the buildings and contents models where a high number of events in the past seem to be associated with lower insurance premiums. There are probably some confounding variables that we cannot measure that are the cause of this effect.

8.205 It seems that it is only the basic explanatory factors that are robust enough to be associated with changes in premiums: the value of the property and the amount of contents cover are the only factors having an influence on the premiums.



APPENDIX 1: METHODOLOGY AND TECHNICAL APPENDIX

A1.1 In this Appendix, we identify the chief data sources for our work and set out the technical results of two econometric exercises undertaken: one in respect of cross-border activity and the other in respect of the mystery shopping exercise that we have undertaken.

Information Sources

A1.2 We have used a very wide range of data sources in the preparation of this report. We do not list these in full here; instead we identify the main ones as the Comité Européen des Assurances (CEA); Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS); La Fédération européenne des intermédiaires d'assurances (BIPAR, the European Federation of Insurance Intermediaries); the National Association of Insurance Commissioners (NAIC); the national trade associations of insurers; the national regulators in each Member State. As part of our data gathering process, we spoke to the supervisory body in each Member State in order to access information on the number of national operators, the scale of cross-border trade and segmented profitability (e.g. the expense or claims ratio for M3PL).

A1.3 The identity of the organisations from which we have sourced information is made clear in the text of the main body of the report.

A1.4 We have conducted over 20 interviews aimed at gathering (mostly) qualitative information. Of these, seventeen have been with individual insurers from fifteen different Member States. In addition, we surveyed four specific groups of stakeholder: regulators, insurers, insurance intermediaries and consumer associations, receiving over 70 responses. Again, the objective here was the solicitation of qualitative information. In conjunction with the interviews undertaken, we obtained views from at least one market participant in all Member States, bar Greece.

A1.5 We wish to express our thanks to all the individuals and organisations that spared us the time and resources to help us in our work.

A1.6 We set out below a key to the country and USA State acronyms that we have used in this report.

**Table A1.1: Country and USA State Acronyms**

Austria	AT	Malta	MT
Belgium	BE	Netherlands	NL
Bulgaria	BG	Poland	PL
Cyprus	CY	Portugal	PT
Czech Republic	CZ	Romania	RO
Denmark	DK	Slovakia	SK
Estonia	EE	Slovenia	SI
Finland	FI	Spain	ES
France	FR	Sweden	SE
Germany	DE	United Kingdom	UK
Greece	EL	USA	US
Hungary	HU	<i>Connecticut</i>	CT
Ireland	IE	<i>Maine</i>	ME
Italy	IT	<i>New Jersey</i>	NJ
Latvia	LV	<i>New York</i>	NY
Lithuania	LT	<i>Pennsylvania</i>	PA
Luxembourg	LU	<i>Vermont</i>	VT

Econometric Analysis of Cross-border Trade

Introduction

- A1.7 In the main text of this report we have summarised the results of the econometric analysis that we conducted to examine the drivers of cross-border trade across the EU27.
- A1.8 In this appendix we provide technical details of the models estimated as well as the results of the tests we conducted to make sure that the models were sufficiently robust.
- A1.9 As we explain in the main text (in Section 3), we have used a Tobit framework to estimate our models. This is a standard way of approaching a data set that contains many zeroes. The Tobit approach relies on a number of assumptions about the distribution of the error term, and we refer to the tests conducted to see whether such assumptions held.

Definition of the variables

- A1.10 The dependent variable that we have sought to explain in the modelling process has been the level (in money terms) of the cross-border activity between any two given Member States.
- A1.11 We have looked at the two types of cross-border trade (Freedom of Establishment and Free Provision of Services) separately. We have also considered three different product categories: M3PL, comprehensive and property insurance. This results in six models, each with its own dependent variable: M3PL Premiums Branches (i.e. Freedom of



Establishment); M3PL Premiums FPS; Comprehensive Premiums Branches; Comprehensive Premiums FPS; Property Branches and Property FPS.

A1.12 We have described at length in Section 3 the explanatory variables that we have used and the broad rationale underlying their selection. We identify below the abbreviations used in this Appendix when describing these variables:

(a) Country of origin variables:

- Totalnonlife: Total Non-life premiums in the home market.
- Gdppercapie: GDP per capita in the home market.
- Cr5m3plhome: The CR5 concentration index of the market for M3PL in the home country.
- Cr5comphome: The CR5 concentration index of the market for motor comprehensive in the home country.

(b) Country of destination variables:

- Motorrevenue: The motor revenue of the host insurance market¹²⁹.
- Propertyrevenue: The property revenue of the host country.
- Gdppercapit: GDP per capita in the host market.
- Indintermediate: The share of premiums distributed through independent intermediaries in the host market.
- Cr5comphost: The CR5 concentration index of the market for motor comprehensive in the host country.
- Totaltheft: Total amount of thefts in the host country.
- Theftdens: Total number of thefts indexed by population of the host country.

(c) Cross-country variables:

- Borderincontiguous: Contiguous border.
- Compatibility: Compatibility of the legal regimes.

¹²⁹ Note a caveat to the construction of the motor revenue variable is that it simply combines the revenue of M3PL and Motor Comprehensive.



Construction of the model(s)

A1.13 The model attempts to explain the amount of premiums sold by the home country in a number of host countries (all within the EU27). Some national insurance industries choose not to sell anything at all while others sell significant amounts. The estimates on coefficients of variables explaining premiums would be biased and inconsistent if the limitation at 0 was not accounted for. Furthermore, these problems would be greatly exacerbated by the data's concentration around 0. The Tobit model is recognised as the standard model for such truncated data.

A1.14 Given its theoretical underpinnings, a Tobit model must pass two main tests to produce reliable and robust estimates. The first is that the variance of the error term must be constant across the whole sample (this is referred to as homoscedasticity). If it is not, heteroscedasticity, as it is known, will bias the coefficients. The test is conducted by running an interval regression with robust standard errors which would correct for such a problem. Observing little difference in the results suggests the original model is not influenced by heteroscedasticity.

A1.15 The second test is that those same errors must be tending towards a normal distribution. There is a hypothesis test that assesses how much the non-normality of the errors affects the results. This has been a more substantial problem, as described below.

M3PL freedom of establishment model

A1.16 The results of the model estimated for freedom of establishment in M3PL are summarised below.

$\text{Log M3PL Premiums Branches} = \text{Border in Common} + \text{GDP per capita Home} + \text{CR5 M3PL Home} + \text{Claims Ratio Host} + \text{Motor Indirect Intermediary} + \text{Constant}$

Tobit estimates Log likelihood = -289.32247	Number of obs = 530 LR chi2(5) = 53.85 Prob > chi2 = 0.0000 Pseudo R2 = 0.0851

logm3plprebr	[95% Conf. Interval]
+-----+ -----	
borderinco~n	10.47347 31.25201
gdppercapi~e	.0001021 .000599
cr5m3plhome	-70.7104 -20.47708
claimsrati~t	10.66811 87.69733
mtrindint	3.413603 46.3632
_cons	-87.28149 -18.61701



-----+-----			
_se	23.57483	3.128264	(Ancillary parameter)
-----+-----			
obs. summary:	485	left-censored observations at logm3p~r<=0	
	45	uncensored observations	

A1.17 When using interval regression with robust standard errors, the model does not change. This implies heteroscedasticity is not a problem.

A1.18 The null hypothesis of normality of errors is not rejected at the 1 per cent and at the 5 per cent levels, but is rejected at the 10 per cent level. This means there is some weakness in the explanatory value of the model.

M3PL free provision of services model

A1.19 The results of the model estimated for free provision of services in M3PL are summarised below.

M3PL Premiums FPS = Border in Common + GDP per capita Home + Total Non-life premiums Home + CR5 M3PL Home + Claims Ratio Home + Constant
--

Tobit estimates		Number of obs =	596
		LR chi2(5) =	92.19
		Prob > chi2 =	0.0000
Log likelihood =	-1497.57	Pseudo R2 =	0.0299
-----+-----			
m3plprefps	Coef.	Std. Err.	t P> t [95% Conf. Interval]
-----+-----			
borderinco~n	9857450	2387610	4.13 0.000 5168218 1.45e+07
gdppercapi~e	457.9885	68.70004	6.67 0.000 323.0626 592.9144
totalnonli~e	-15737.48	5090.47	-3.09 0.002 -25735.09 -5739.871
cr5m3plhome	-2.51e+07	6400527	-3.92 0.000 -3.76e+07 -1.25e+07
claimsrati~e	-2.66e+07	9671032	-2.75 0.006 -4.56e+07 -7588342
_cons	5954787	7961547	0.75 0.455 -9681581 2.16e+07
-----+-----			
_se	1.23e+07	1053465	(Ancillary parameter)
-----+-----			
obs. summary:	517	left-censored observations at m3plpr~s<=0	
	79	uncensored observations	



A1.20 When using interval regression with robust standard errors, the model does not change. This implies heteroscedasticity is not a problem.

A1.21 The null hypothesis of normality of errors is not rejected at the 1 per cent and at the 5 per cent levels, but is rejected at the 10 per cent levels. This means there is some weakness in the explanatory value of the model.

Motor comprehensive freedom of establishment models

A1.22 The results of the models estimated for freedom of establishment in motor comprehensive are summarised below. The models differ in respect to the control variables used.

Log MC Premiums from Branches = Border in Common + GDP per capita Home +
CR5 MC Home + Total Theft + Compatibility of
Legal Regime Constant + Constant

Tobit estimates		Number of obs =		597		
		LR chi2(5) =		87.69		
		Prob > chi2 =		0.0000		
Log likelihood = -355.02292		Pseudo R2 =		0.1099		

logmcprebr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
borderinco~n	21.76773	4.48355	4.86	0.000	12.96213	30.57333
gdppercapi~e	.0002739	.00011	2.49	0.013	.0000579	.0004898
cr5comprhome	-49.66366	10.61939	-4.68	0.000	-70.51993	-28.8074
totaltheft	.0000487	.0000137	3.56	0.000	.0000218	.0000755
compatibil~e	-10.09735	3.505675	-2.88	0.004	-16.98242	-3.212275
_cons	-1.838057	7.617811	-0.24	0.809	-16.79928	13.12317
-----+-----						
_se	21.38225	2.472068	(Ancillary parameter)			

obs. summary:	539	left-censored observations at logmcp~r<=0				
	58	uncensored observations				

A1.23 When using interval regression with robust standard errors, the model does not change. This implies heteroscedasticity is not a problem.

A1.24 The null hypothesis of normality of errors is not rejected at the 1 per cent, 5 per cent or 10 per cent levels. As such, the explanatory value is very little affected by the non-normality of the errors. The model is robust.



Motor comprehensive free provision of services model

A1.25 The results of the model estimated for free provision of services in motor comprehensive are summarised below.

$$\text{MC Premiums FPS} = \text{Constant} + \text{GDP per capita Home} + \text{GDP per capita Host} + \text{CR5 MC Home} + \text{MC Revenue} + \text{Claims Ratio Home}$$

Tobit estimates		Number of obs =		598		
		LR chi2(5) =		148.40		
		Prob > chi2 =		0.0000		
Log likelihood = -2592.0035		Pseudo R2 =		0.0278		

mcprefps	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
gdppercapi~e	246.0978	38.17885	6.45	0.000	171.1156	321.08
gdppercapi~t	77.2248	37.10507	2.08	0.038	4.351462	150.0981
cr5comprhome	-1.52e+07	3324568	-4.57	0.000	-2.17e+07	-8679049
mcrevenue	435.5102	82.39869	5.29	0.000	273.6814	597.3389
claimsrati~e	2.24e+07	6002246	3.73	0.000	1.06e+07	3.42e+07
_cons	-2.39e+07	5000696	-4.79	0.000	-3.38e+07	-1.41e+07
-----+-----						
_se	9473856	583828.8	(Ancillary parameter)			

Obs. summary:	456	left-censored observations at mcprefps<=0				
	142	uncensored observations				

A1.26 When using interval regression with robust standard errors, the model does not change. This suggests heteroscedasticity is not a problem.

A1.27 The null hypothesis of normality of errors is not rejected at the 1 per cent, 5 per cent or 10 per cent levels. As such, the explanatory value is very little affected by the non-normality of the errors. The model is robust.

Property insurance freedom of establishment model

A1.28 The results of the model estimated for freedom of establishment in property insurance are summarised below.

$$\text{Property Premiums from Branches} = \text{Border in Common} + \text{GDP per capita Home} + \text{Constant}$$



Tobit estimates				Number of obs	=	624
				LR chi2(2)	=	45.99
Log likelihood = -2052.94				Prob > chi2	=	0.0000
				Pseudo R2	=	0.0111

propertypr~r	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
borderinco~n	9.38e+07	2.05e+07	4.58	0.000	5.36e+07	1.34e+08
gdppercapi~e	2145.822	450.9542	4.76	0.000	1260.245	3031.399
_cons	-2.01e+08	2.28e+07	-8.81	0.000	-2.45e+08	-1.56e+08
-----+-----						
_se	1.16e+08	9289330	(Ancillary parameter)			

obs. summary:	528	left-censored observations at prop~ebr<=0				
	96	uncensored observations				

A1.29 When using interval regression with robust standard errors, the model does not change. This implies heteroscedasticity is not a problem.

A1.30 The null hypothesis of normality of errors is not rejected at the 1 per cent only. The model is relatively weak.

Property free provision of services model

A1.31 The results of the model estimated for free provision of services in property insurance are summarised below.

$\text{Property Premiums from FPS} = \text{Border in Common} + \text{GDP per Capita Home} + \text{Constant}$
--

Tobit estimates				Number of obs	=	622
				LR chi2(2)	=	117.76
Log likelihood = -5057.5468				Prob > chi2	=	0.0000
				Pseudo R2	=	0.0115

propertyp~s1	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
borderinco~n	2.21e+07	4907946	4.50	0.000	1.24e+07	3.17e+07
gdppercapi~e	934.7436	100.9466	9.26	0.000	736.5049	1132.982
_cons	-4.55e+07	3971927	-11.46	0.000	-5.33e+07	-3.77e+07
-----+-----						



_se	3.28e+07	1466241	(Ancillary parameter)

obs. summary:	359	left-censored observations at propes1<=0	
	263	uncensored observations	

A1.32 When using interval regression with robust standard errors, the model does not change. This suggests heteroscedasticity is not a problem.

A1.33 The null hypothesis of normality of errors is not rejected at the 1 per cent or 5 per cent, but is rejected at the 10 per cent level. The model is relatively robust.

Econometric Analysis of the Level of Premiums

Introduction

A1.34 In the main text of this report we have summarised the results of an econometric analysis that we conducted on the basis of the data that we gathered on the level of premiums in the EU 27 and in a number of US states.

A1.35 In this appendix we provide an explanation of the methodology used in such analysis as well as a more in depth description of the results obtained coupled with a commentary on the robustness of such results.

Methodological issues

A1.36 When estimating econometric models there are two broad strategies that can be used, a “general to specific” and a “specific to general” strategy. If the former strategy is adopted the econometrician starts with a model that contains “many” potential explanatory variables and eliminates those that are not significant (either from a statistical or economic perspective) to develop a simpler model that is at capable of “explaining” the dependent variable least as well as a more complex model but is preferred to this one because it requires less explanatory factors. On the other hand, if the latter strategy is adopted, the econometrician starts with a simple model (usually one with a single explanatory variable) and adds additional variables until adding further variables no longer provides additional information to the model.¹³⁰

A1.37 There are theoretical reasons why it is usually preferable to adopt a “general to specific” approach to econometric modelling. However this is, in practice, not always possible because many of the automated procedures that implement this strategy start with the observations available when the full model is estimated and then keep the same set of observations for the following steps of the procedure. This implies that if an observation is

¹³⁰ This is a very simplified description of these two strategies and should not be interpreted literally.



missing at the beginning of the procedure because, say, we do not have data on the number of mergers and acquisitions for a particular Member State, then that observation would not be used in the models.

A1.38 In the data that we have available this is a particularly severe concern: although, overall, we have a considerable amount of information available there are a few holes for many of the potential explanatory variables suggested by our other work and by the requests of the Commission. However, if these few gaps are summed together they considerably reduce the amount of information available.

A1.39 Therefore we have adopted a “mixed” strategy in that we have decided to develop basic models for motor and property insurance that included a limited number of explanatory variables that we would expect a priori to have an effect on the level of premiums. Then we attempted to add additional explanatory variables one at the time and check which of them provided additional explanatory power to the model.

A1.40 Finally we constructed a series of final models (one per each market segment) that incorporated the variables that were significant in the previous step to test their robustness.

The explanatory variables

A1.41 The explanatory variables are those described in Section 4 of in the main body of the report. We do not report them here in detail; we simply say that we have included variables regarding:

- (d) The characteristics of the policy contract (e.g. the level of excess)
- (e) The characteristics of the insured person (e.g. age, gender, number of years with no claims etc)
- (f) The characteristics of the insured good (e.g. value of the property, mileage of the car etc)
- (g) The characteristics of the country/region (e.g. GDP per capita, number of accidents etc)

Modelling insurance premiums

What premiums

A1.42 When analysing differences in insurance premiums across countries it is clearly important to compare the appropriate measure of premiums. Since our main interest lies in determining the differences over which insurance companies have control since they are clearly more important in a single market perspective we have decided to use a net measure of premiums.



- A1.43 Therefore whenever the insurance company provided the premium that included taxes (and/or any additional duty that may be payable by the insured person) we have subtracted the appropriate amount to obtain a net measure of the premium.
- A1.44 Taxes on insurance policies vary considerably across Member States (and in the US). In many countries premiums are not subject to any tax in some (e.g. Denmark) taxes represent almost 50 per cent of the premium (excluding tax).
- A1.45 In addition we have to determine what the appropriate “quote” to use is. Given that in most cases we have at least three quotes for the same profile in a given location we could either use the cheapest quote that we obtained or an average of the quotes available.
- A1.46 We did both: we have run regressions where the dependent variable is the cheapest quote obtained and regression where an average of the three cheapest quotes is the dependent variable.
- A1.47 We believe that there are good reasons to do so. Economic theory suggests that, *ceteris paribus*, policy holders should choose the cheapest quote and hence this specific quote would represent the appropriate one to use. On the other hand, consumers might be attracted to other characteristics of the policy such as e.g. the reputation of the company or, in some cases, they might not be aware of the availability of cheaper quotes on the market.
- A1.48 Using two different sets of dependent variables is, in our opinion a sufficiently good compromise between these different issues.

Functional form

- A1.49 In order to decide the appropriate functional specification to model insurance premiums we have conducted a series of Box-Cox tests to establish whether the dependent variable in each of the regression should have been in level (i.e. the premium paid) or in logs. These tests suggested that a logarithmic form should be preferred in almost all instances and hence we have estimated equations of the form:

$$\log(\text{premium}) = \alpha + \beta X + \varepsilon$$

where X is a vector of control variables and ε the standard random component.

- A1.50 One thing to be kept in mind is that the estimated coefficients in a model of this sort represent “semi-elasticities” i.e. the percentage change in the (net) premium due to a unitary change in the relevant explanatory variable (e.g. an additional euro in the value of the car).

Clustered data

- A1.51 A characteristic of the data we gathered is that they can be thought as of a “clustered sample”: the quotes we gathered have not been extracted randomly from a “population”



of independent quotes but have been extracted from a series of clusters (EU or US Member States).

A1.52 This fact has a series of statistical implications which can be summarised in the fact that the quotes from the same State are correlated and thus not independent. For instance, assume that in a specific member state a new piece of legislation that has an impact on insurance quotes is approved (for instance a new minimum level of coverage or the prohibition of bundling different services together). In this case all the quotes of the Member State would be affected and we might be driven to mistake an effect that is due to clustering for a genuine effect of the level of coverage on insurance premiums.

A1.53 We have estimated models that take this effect into account in the calculation of standard errors (and hence of statistical significance) as well as models that do not take this effect into account.

A1.54 The former type of models is the one that we discuss in more depth however, for completeness, we report some of the results of the non cluster robust model as well.

The base models

A1.55 On the basis of our discussion with a number of stakeholders, as well as on the results of our review of the literature and bearing in mind the gaps in the explanatory variables that we have been able to gather, we have developed a series of base models that should contain the most important factors affecting insurance premiums.

A1.56 For motor insurance we have developed three separate models: one for third party liability, one for comprehensive cover and one that pools all motor quotes together.

A1.57 For property insurance we have developed two models, one for buildings and contents and one for contents only cover.

Motor insurance: M3PL

A1.58 The basic model for third party cover includes as explanatory variables the level of excess, the standard deviation of the three cheapest quotes obtained for that profile in every country (as proxy for competition), the per capita GDP in each country, the power of the car in BHP, the experience of the insured driver (calculated as the age of the driver minus the minimum age at which a license can be obtained), a gender dummy and a dummy for the US.

A1.59 When the model is estimated without taking into account the clustering in the sample the following results emerge:

Source	SS	df	MS	
Model	97.8574019	7	13.9796288	Number of obs = 317
Residual	118.154259	309	.382376243	F(7, 309) = 36.56
				Prob > F = 0.0000
				R-squared = 0.4530
				Adj R-squared = 0.4406
Total	216.011661	316	.683581206	Root MSE = .61837



lognetquote1	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
excess	-.0006619	.0003372	-1.96	0.051	-.0013254 1.57e-06
stdev3	.0011499	.0002037	5.64	0.000	.000749 .0015508
gdppc	.00002	2.78e-06	7.21	0.000	.0000145 .0000255
power	.0019164	.0007488	2.56	0.011	.0004431 .0033898
experience	-.0292957	.0033841	-8.66	0.000	-.0359545 -.0226369
male	.0185044	.0744728	0.25	0.804	-.1280334 .1650423
usa	.2204793	.1023146	2.15	0.032	.0191579 .4218007
_cons	5.361215	.1300902	41.21	0.000	5.10524 5.61719

A1.60 While when it is estimated correcting for clustering the results are as follows:

Regression with robust standard errors

Number of obs = 317
 F(7, 29) = 30.15
 Prob > F = 0.0000
 R-squared = 0.4530
 Root MSE = .61837

Number of clusters (country) = 30

lognetquote1	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
excess	-.0006619	.0004291	-1.54	0.134	-.0015395 .0002156
stdev3	.0011499	.0003817	3.01	0.005	.0003692 .0019305
gdppc	.00002	9.28e-06	2.16	0.040	1.02e-06 .000039
power	.0019164	.0011593	1.65	0.109	-.0004547 .0042875
experience	-.0292957	.004731	-6.19	0.000	-.0389716 -.0196197
male	.0185044	.0439647	0.42	0.677	-.0714134 .1084222
usa	.2204793	.2730197	0.81	0.426	-.3379086 .7788672
_cons	5.361215	.2990861	17.93	0.000	4.749515 5.972915

A1.61 All the coefficients have the expected sign and most of them are statistically significant. As expected richer countries also have higher insurance premiums; gender does not have an effect on the average level of premiums nor do there seem to be major differences in the US with respect to the EU. Experience is the most significant factor in explaining the different premiums paid by insured persons (a fact that will be constantly true in all the following models), the power of the car is also an important factor although it becomes marginally insignificant when the cluster nature of the dataset is taken into account.

A1.62 Overall, the model explains approximately 45 per cent of the variance of (the log of) quotes and the F test strongly rejects the hypothesis that all the coefficients are jointly equal to zero.

A1.63 We do not report detailed results for when the dependent variable is the average of the three cheapest quotes rather than the cheapest quote but there are very minor changes in this case. If anything, the variables are even more significant in statistical terms.



Motor insurance: comprehensive

A1.64 The basic model for comprehensive quotes includes exactly the same variables as the one for third party quotes.

A1.65 When the model is estimated without taking into account the clustering in the sample the following results emerge:

Source	SS	df	MS			
Model	30.477394	7	4.35391343	Number of obs =	335	
Residual	82.0855748	327	.251026223	F(7, 327) =	17.34	
				Prob > F	= 0.0000	
				R-squared	= 0.2708	
				Adj R-squared	= 0.2551	
Total	112.562969	334	.337014877	Root MSE	= .50103	

lognetquote1	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
excess	-.0005908	.0001845	-3.20	0.001	-.0009537	-.000228
stdev3	.0004957	.0001086	4.56	0.000	.0002821	.0007094
gdppc	.00001	2.26e-06	4.44	0.000	5.59e-06	.0000145
power	.0095018	.0024452	3.89	0.000	.0046915	.0143121
experience	-.0225495	.0042816	-5.27	0.000	-.0309725	-.0141265
male	.0386225	.0548585	0.70	0.482	-.0692977	.1465427
usa	-.2379461	.0755802	-3.15	0.002	-.3866309	-.0892613
_cons	5.421201	.2828733	19.16	0.000	4.86472	5.977682

A1.66 While when it is estimated correcting for clustering the results are as follows:

Regression with robust standard errors				Number of obs =	335
				F(7, 32) =	5.12
				Prob > F	= 0.0006
				R-squared	= 0.2708
Number of clusters (country) = 33				Root MSE	= .50103

lognetquote1	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
excess	-.0005908	.0003688	-1.60	0.119	-.001342	.0001603
stdev3	.0004957	.0001691	2.93	0.006	.0001513	.0008402
gdppc	.00001	4.72e-06	2.13	0.041	4.37e-07	.0000196
power	.0095018	.0035989	2.64	0.013	.0021711	.0168325
experience	-.0225495	.0072078	-3.13	0.004	-.0372313	-.0078678
male	.0386225	.0243928	1.58	0.123	-.0110641	.0883091
usa	-.2379461	.1787071	-1.33	0.192	-.6019606	.1260684
_cons	5.421201	.4513211	12.01	0.000	4.50189	6.340512

A1.67 The results are very similar to those obtained for M3PL with all the signs going in the expected direction. In the non cluster robust case the USA seem to be cheaper but the significance disappears in the cluster-robust regression.

A1.68 The overall explanatory power of the model is, however, reduced: around 27 per cent of the variance is explained by the model in this case.



A1.69 In this case too the results are almost identical if the average of the three cheapest quotes is used. The only difference is that male drivers do pay more on average in this case. This might suggest that if they shop around male drivers should be capable of getting quotes comparable to those for a female driver even in those places where insurance companies discriminate on the basis of gender.

Motor insurance: all quotes

A1.70 When considering third party and comprehensive quotes in the same model we use exactly the same explanatory variables as before but we add a dummy variable that identifies which quotes are “comprehensive”.

A1.71 The results of the non cluster-robust model are:

Source	SS	df	MS	
Model	206.905724	8	25.8632155	Number of obs = 652
Residual	233.81954	643	.363638477	F(8, 643) = 71.12
				Prob > F = 0.0000
				R-squared = 0.4695
				Adj R-squared = 0.4629
Total	440.725264	651	.676997334	Root MSE = .60302

lognetquote1	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
excess	-.0004351	.0001812	-2.40	0.017	-.0007908 -.0000793
stdev3	.0007	.0001083	6.46	0.000	.0004873 .0009126
gdppc	.0000148	1.92e-06	7.70	0.000	.000011 .0000185
power	.0026602	.0006962	3.82	0.000	.0012932 .0040273
experience	-.015617	.0018183	-8.59	0.000	-.0191875 -.0120465
male	.0643173	.048304	1.33	0.183	-.0305353 .1591699
usa	-.0002165	.0662066	-0.00	0.997	-.1302238 .1297908
comprehensiv	.8061519	.0531551	15.17	0.000	.7017734 .9105304
_cons	5.222554	.093574	55.81	0.000	5.038806 5.406301

A1.72 And those of the cluster-robust model:

Regression with robust standard errors

Number of obs = 652
 F(8, 32) = 24.06
 Prob > F = 0.0000
 R-squared = 0.4695
 Root MSE = .60302

Number of clusters (country) = 33

lognetquote1	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
excess	-.0004351	.0003377	-1.29	0.207	-.0011229 .0002528
stdev3	.0007	.0002396	2.92	0.006	.0002119 .001188
gdppc	.0000148	6.10e-06	2.42	0.021	2.34e-06 .0000272
power	.0026602	.0010684	2.49	0.018	.0004841 .0048364
experience	-.015617	.0022235	-7.02	0.000	-.0201461 -.011088
male	.0643173	.0233556	2.75	0.010	.0167435 .1118911
usa	-.0002165	.2131756	-0.00	0.999	-.434441 .434008
comprehensiv	.8061519	.1171997	6.88	0.000	.567424 1.04488



_cons	5.222554	.2206142	23.67	0.000	4.773178	5.67193
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A1.73 Unsurprisingly there are no major differences between the pooled and the separated regression: comprehensive quotes are on average 80 per cent more expensive than M3PL quotes and the sign of all the other explanatory factors is unchanged. The overall explanatory power of the model is good with approximately 47 per cent of the variance explained.

A1.74 Interestingly, in the overall model the male driver dummy is significant and positive, suggesting that male drivers spend six per cent more than female drivers.

Home insurance: building and contents

A1.75 The basic model for buildings and contents cover includes as explanatory variables only the value of the property, as estimated during the data gathering process, the amount covered under the contents part of the policy and a dummy variable for the US.

A1.76 The results of the model that does not take into account cluster-robust errors are as follows:

Source	SS	df	MS			
Model	29.4066558	3	9.80221859	Number of obs =	155	
Residual	53.0994577	151	.351652037	F(3, 151) =	27.87	
Total	82.5061134	154	.535753983	Prob > F =	0.0000	
				R-squared =	0.3564	
				Adj R-squared =	0.3436	
				Root MSE =	.593	

lognetquote1	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
propvalue	1.73e-06	3.06e-07	5.64	0.000	1.12e-06	2.33e-06
coveredamo~t	4.69e-06	3.45e-06	1.36	0.176	-2.13e-06	.0000115
usa	.6498937	.1147794	5.66	0.000	.4231127	.8766746
_cons	4.503485	.1174697	38.34	0.000	4.271389	4.735582

A1.77 While the results with cluster-robust standard errors are:

Regression with robust standard errors	Number of obs =	155
	F(3, 29) =	7.30
	Prob > F =	0.0009
	R-squared =	0.3564
Number of clusters (country) = 30	Root MSE =	.593

lognetquote1	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
propvalue	1.73e-06	5.02e-07	3.44	0.002	7.01e-07	2.75e-06
coveredamo~t	4.69e-06	5.43e-06	0.86	0.395	-6.42e-06	.0000158
usa	.6498937	.1847431	3.52	0.001	.2720516	1.027736



_cons		4.503485	.2402975	18.74	0.000	4.012022	4.994949
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A1.78 The value of the property is a strong predictor of the insurance premium to be paid for a building and contents insurance cover. Surprisingly there does not seem to be an effect of contents cover value, although the sign of the variable is correct. Insurance in the USA is approximately 64 per cent more expensive than in Europe. About 35 per cent of the variance is explained by our model.

A1.79 When the average of the three cheapest quotes is used however the results improve: both the value of the property and the amount covered are positive and significant in the non cluster-robust regression while the covered amount becomes only marginally insignificant in the cluster-robust one.

Home insurance: contents only

A1.80 The base model for contents only insurance is extremely simple: in addition to the constant and a dummy for the US only the amount covered by the policy is used. This is also due to the fact that we only have 54 observations in this regression and hence we need to be parsimonious with the number of variables that we use.

A1.81 The results of the non cluster-robust model are as follows:

Source	SS	df	MS	
Model	3.48969339	2	1.74484669	Number of obs = 54
Residual	23.1738419	51	.454389057	F(2, 51) = 3.84
Total	26.6635353	53	.503085572	Prob > F = 0.0280
				R-squared = 0.1309
				Adj R-squared = 0.0968
				Root MSE = .67408

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
lognetquote1	.0000206	7.44e-06	2.76	0.008	5.63e-06 .0000355
coveredamo~t	-.2550467	.2476588	-1.03	0.308	-.7522425 .2421491
usa	3.551736	.220262	16.13	0.000	3.109542 3.993931
_cons					

A1.82 And those of the cluster-robust model:

Regression with robust standard errors	Number of obs = 54
	F(2, 28) = 2.28
	Prob > F = 0.1211
	R-squared = 0.1309
Number of clusters (country) = 29	Root MSE = .67408

	Robust
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lognetquote1	Coef.	Std. Err.	t	P> t	[95% Conf. Interva]
coveredamo~t	.0000206	9.86e-06	2.09	0.046	3.76e-07 .0000408
usa	-.2550467	.1920081	-1.33	0.195	-.6483574 .138264
_cons	3.551736	.3156938	11.25	0.000	2.905067 4.198406

A1.83 The coefficient of the amount covered by the policy is positive and significant as expected while the dummy for the US is insignificant. This is not the case when the average of the three cheapest quotes is obtained: contents insurance in the US seems to be cheaper than in Europe.

A1.84 The explanatory power of the model is the lowest of all: about 13 per cent of the variance is explained by our model.

Factors influencing premiums

A1.85 In order to test the impact of other variables on the level of premiums in the states in which we gathered data we have then added to the base models described above a series of additional (potential) explanatory factors and recorded the results.

A1.86 The results of the various models are summarised in a series of tables below.

Motor insurance: M3PL

A1.87 The results of the regressions are summarised in Table A1.2. The sign in each cell of the table indicates the sign of the coefficient associated with the explanatory factor when it is added to the basic model. The symbols *, ** and *** indicate that the coefficient is statistically significant at the 10 per cent, 5 per cent and 1 per cent level respectively. An empty cell indicates that the coefficient is not statistically significant in the regression.

**Table A1.2: Additional factors influencing premiums: M3PL party quotes**

	Cheapest quote		Average 3 cheapest quotes	
	Standard regression	Cluster-robust regression	Standard regression	Cluster-robust regression
Regional accidents				_*
Regional GDP per capita				
Regional population				
Regional population density	+***	+*	+***	+*
% of motorways in road network	+***	+*	+***	
Total road network	_**		_**	
Alcohol limit	+***		+***	
Speed limit (motorway)				
License age			_**	
Drunk accidents	+***		+***	
Drunk accidents per 1,000 people	+**			
Road accidents	+***	+*	+***	
Road accidents per 1,000 people	+***		+***	
Road fatalities	+***	+**	+***	+**
Road fatalities per 1,000 people	+***	+*	+***	
Vehicles per 1,000 people	+***		+***	
Minimum injury cover (per accident)	+***		+**	
Min material cover (per accident)			_**	
Percentage of direct distribution				
Percentage of independent intermediary distribution	+*		+**	
CR5	_***	_*	_***	
m&a	+***	+***	+***	+***
m&a per operator	+***		+**	
Per cent re-insurance			+**	
Long term government bond yields	_***	_**	_***	_***
Number of thefts	+***	+***	+***	+***



Theft of cars as a share of total car stock	+++	+++	+++	**
Auto repair wages				
Health expenditure per capita	+++	**	+++	**
Passenger km per km road	+++	*	+++	
Non-fatal injuries	+++		+++	
Share of fatal accidents due to drink	+++		+++	
Share of male fatalities	+++	+++	+++	
Share of urban population	+++		+++	
Share of pop older than 65	**			
Stock renewal rate				
m&a national	+++	**	+++	**
m&a foreign	+++	+++	+++	**
Share of front-seatbelt used				
Share of uninsured vehicles				
HH index	---		---	
CEE Member States	---	**	---	*
Eurozone	**		**	
Insurance agent wage	**		*	

A1.88 For instance the number of road accidents in each state is statistically significant and positive (i.e. is associated with higher premiums) in both types of regressions when the cheapest quote is used as the dependent variable while it is insignificant in the cluster-robust regression when the dependent variable is the average of the three cheapest quotes.

A1.89 There are quite a few variables that are robustly associated with an effect on the level of M3PL premiums and are significant across the four different types of regression. The factors that are strongly associated with higher premiums are: the population density of the region of interest, the number of fatalities in the country, the number of M&A, the number of thefts, the proportion of cars that are reported stolen in a given year and the level of per capita health expenditure in each country.

A1.90 A less strong positive association is present for the share of motorways over the total length of the road network, the number of accidents, the number of fatalities per 1,000 population, the passenger km per road km and, finally, the share of male fatalities.



A1.91 A strong negative association with the level of premiums is present for the long term government bond yield and the CEE Member States. A less strong negative association is present for the concentration ratio.

A1.92 All other variables are either insignificant in all the regressions or lose significance when the cluster nature of the dataset is taken into account.

Motor insurance: comprehensive

A1.93 The results for the motor comprehensive quotes are reported in Table A1.3.

**Table A1.3: Additional factors influencing premiums: comprehensive quotes**

	Cheapest quote		Average 3 cheapest quotes	
	Standard Regression	Cluster-robust regression	Standard regression	Cluster-robust regression
Regional accidents				
Regional GDP per capita				
Regional population				
Regional population density			+	*
% of motorways in road network				
Total road network				
Alcohol limit				
Speed limit (m'way)	+	*	+	***
Licence age	+	***	+	**
Drunk accidents				
Drunk accidents per 1,000 people				
Road accidents				
Road accidents per 1,000 people				
Road fatalities				
Road fatalities per 1,000 people				
Vehicles per 1,000 people				
Minimum injury cover (per accident)				
Min material cover (per accident)				
Percentage of direct distribution			+	**
Percentage of independent intermediary distribution	+	***	+	**
CR5				
m&a	+	***	+	**
m&a per operator	+	***	+	**
Per cent re-insurance			+	**
long term government bond yields				
Number of thefts	+	**	+	*



Theft of cars as a share of total car stock				
Auto repair wages				
Health expenditure per capita				
Passenger km per km road	+***		+**	
Non-fatal injuries				
Share of fatal accidents due to drink				
Share of male fatalities	+**		+**	
Share of urban population	+**			
Share of pop older than 65	_*			
Stock renewal rate				
m&a national	+***		+**	
m&a foreign	+***		+**	
Share of front-seatbelt used			+*	
Share of uninsured vehicles	+**			
HH index	**			
Eastern MS				
Eurozone				
Insurance agent wage	***	*	***	*

A1.94 There are two additional variables that seem to be robustly associated with higher premiums in the comprehensive segment of the market. One is the wage of an insurance agent, the second is the share of distribution of independent intermediaries. However the sign for the first variable is somewhat surprisingly since, if the wage is interpreted as a cost for the insurer one would expect prices to be higher. It is however possible that a higher wage reflects higher productivity and hence lower prices on average. A similar relationship is present for the third party only quotes as well but it loses significance when the clustered nature of the data is considered.

A1.95 The presence of intermediaries has the effect to increase average premiums: an additional step in the chain is likely to add to the costs.

A1.96 A slightly less strong, but positive, relationship is present with the number of M&A deals.



Motor insurance: all motor quotes

A1.97 The results for all motor quotes are reported in Table A1.4

**Table A1.4: Additional factors influencing premiums: all motor quotes**

	Cheapest quote		Average 3 cheapest quotes	
	Standard Regression	Cluster-robust regression	Standard regression	Cluster-robust regression
Regional accidents				
Regional GDP per capita				
Regional population				
Regional population density			+	*
% of motorways in road network	+	***	+	***
Total road network	-	**	-	**
Alcohol limit	+	**	+	*
Speed limit (m'way)			+	**
Licence age				
Drunk accidents	+	**		
Drunk accidents per 1,000 people				
Road accidents	+	***	+	***
Road accidents per 1,000 people	+	***	+	**
Road fatalities	+	***	+	**
Road fatalities per 1,000 people	+	***	+	***
Vehicles per 1,000 people	+	**	+	***
Minimum injury cover (per accident)	+	**		
Min material cover (per accident)				
Percentage of direct distribution				
Percentage of independent intermediary distribution	+	***	+	***
CR5	-	***	-	***
m&a	+	***	+	***
m&a per operator	+	***	+	*
Per cent re-insurance			+	**
long term government bond yields	-	***	-	*
Number of thefts	+	***	+	***



Theft of cars as a share of total car stock	+***	+*	+***	
Auto repair wages				
Health expenditure per capita	+***			
Passenger km per km road	+***	+**	+***	
Non-fatal injuries	+***		+**	
Share of fatal accidents due to drink	+***		+***	
Share of male fatalities	+***	+**	+***	+**
Share of urban population	+***	+*	+***	
Share of pop older than 65				
Stock renewal rate				
m&a national	+***	+**	+***	+*
m&a foreign	+***	+**	+***	+*
Share of front-seatbelt used				
Share of uninsured vehicles	+***		+**	
HH index	-***		-***	
Eastern MS	-***		-**	
Eurozone	+**		+*	
Insurance agent wage	-***	-*	-***	

A1.98 Unsurprisingly the variables that are significant when the overall sample is taken into account lie in between those for third party and comprehensive quotes. We can be comforted that there are no changes in sign for those variables that are significant proving that our model is sufficiently robust to changes in the sample used to estimate it.

Home insurance: building and contents quotes

A1.99 The results for building and contents quotes are reported in Table A1.5.

**Table A1.5: Additional factors influencing premiums: building and contents quotes**

	Cheapest quote		Average 3 cheapest quotes	
	Standard regression	Cluster-robust regression	Standard regression	Cluster-robust regression
Regional burglaries	_***	_***	_***	_***
Regional fires				_*
Regional floods	_***	_***	_***	_**
Regional per capita GDP				
Regional population				
Regional population density	+**	+**	+**	+**
Excess	_**	_**		
Long term government bond yields				
bricklayer wages	+***	+**	+***	+**
retention			+*	
CR5				
Direct distribution	+***			
M&A			+**	
Trees near property				
Property mortgaged				
Distance from fire station				
Distance from hydrant				
Concrete wall				
Concrete roof				
Location				
Percent urban population	+***	+***	+**	
Insurance agent wage	+***	+***	+***	+***
Eastern MS	+**		+**	
Eurozone	_***		+**	



A1.100 The results of the home insurance models are somewhat surprising: the number of floods and burglaries in the region of interest is associated with lower rather than higher premiums and we do not have a plausible explanation for this phenomenon. We would expect that areas where the risk of flood or burglary is higher would experience higher insurance premiums but we are obtaining the opposite result.

A1.101 A positive and robust association is present for the regional population density, the insurance agent wage (opposite than the relationship for motor quotes) and the bricklayer wages. A less robust positive association is present for the per cent of population who lives in urban centres.

Home insurance: contents only quotes

A1.102 The results for contents only quotes are reported in Table A1.6.

**Table A1.6: Additional factors influencing premiums: contents only quotes**

	Cheapest quote		Average 3 cheapest quotes	
	Standard regression	Cluster-robust regression	Standard regression	Cluster-robust regression
Regional burglaries				
Regional fires				
Regional floods				
Regional per capita GDP				
Regional population				
Regional population density				
M&A	+		+	
occupied daily		-		-
alarm				
location				
CR5				
Direct distribution	+			
bricklayer wages	+	+	+	+
long term government bond yields				
Insurance agent wage	+	+	+	+
Eastern MS				
Eurozone				

A1.103 Premiums are higher where bricklayer wages are higher and lower for those houses that are occupied during the day. No other additional variables are significant.

Conclusions

A1.104 In this section of the appendix we summarise the conclusions of our econometric analysis on the variables that influence insurance premiums. We do this by dividing the potential explanatory factors into a number of groups that were originally suggested in the tender documentation and that we have expanded and edited in the course of the study.



A1.105 We start with motor insurance and then we move onto home insurance.

Motor insurance

Density and conditions of the road

A1.106 In order to see whether the density and conditions of roads have an impact on premiums we have used mainly three variables: the total length of the road network, the share of motorways over the total network and the population density.

A1.107 These variables are all associated with higher premiums when the M3PL quotes are taken into account. However, they do not appear to influence premiums for comprehensive cover. This may be due to the fact that comprehensive insurance is a more complex product than third party liability and hence it is more difficult to identify specific drivers. Unsurprisingly the effects when all the quotes are considered simultaneously are less robust than in the third party case but still present.

A1.108 We can conclude that the density and conditions of roads are an important factor that determines insurance premiums, probably as they are closely associated with the level of claims in any geographic location

Road safety measures

A1.109 We have considered different measures in our analysis they are speed limits, blood alcohol limits the minimum age at which a driving licence can be obtained and the share of people using seatbelts.

A1.110 There is no robust evidence that these factors have an influence on the level of premiums: although some of the variables are statistically significant (and associated with higher premiums in all but one instance) in the non cluster robust regressions the significance disappears when the cluster nature of the data is accounted for in all cases.

A1.111 There are two possibilities of why this might happen: the first is that these variables are used only in a subset of states and therefore the effect on the average quote is minimal or there may be other factors (again in a subset of states) correlated with these variables that are driving the result.

A1.112 Overall however there is no evidence of road safety measures to have an effect on the average level of premiums.

Driver's habits and characteristics

A1.113 The regressions show that among all the explanatory variables used the experience of the driver (calculated as age minus the minimum age at which a driving license can be obtained) is the most robust one. When all motor quotes are considered together every additional year of experience reduces the average premium by approximately 1.6 per cent.



A1.114 A characteristic that is usually thought to be important is the gender of the driver. However in our sample there is very limited evidence that men pay, on average, higher premiums than women. This is the case only when all quotes are considered together and an average of the three cheapest quotes is used as the dependent variable.

A1.115 In addition to the simple use of a dummy variable to identify male drivers within our sample we have also used a dummy variable that identifies those Member States that allow policies to vary between male and female drivers as well as an interaction term between the two.

A1.116 In this case there is some evidence that in countries where insurance companies do differentiate then male drivers pay a premium which is, on average, between 8 and 9 per cent higher than female drivers.

A1.117 Although not specifically a “habit” we have also tested whether the (estimated) share of uninsured vehicles had an impact on premiums. Given the existence of funds to compensate road users involved in accidents where the other party is not covered by insurance it may be expected that a higher percentage of uninsured vehicles would be associated with higher premiums. However the evidence in this regard is very weak and the variable is never significant in the cluster-robust regressions.

A1.118 Finally, since for profile 2 we have gathered quotes for a native policy holder as well as for a foreign we have also tested whether the effect of nationality was present. However the variable proved not to be statistically significant. There are very few countries that discriminate on the basis of nationality and, those that do discriminate, usually have a good reason to do it.

Accidents and fatalities in absolute and relative figures

A1.119 We have used a number of separate variables to measure the effects of accidents. They are the number of accidents, the number of fatalities and the number of accidents due to drinking. All these variables have been used both as a total number and as the number per 1,000 population. In addition we have used the number of non-fatal injuries.

A1.120 There is strong evidence that, for third party quotes, the number of fatalities (both in absolute and relative terms) and the number of accidents (in absolute terms) increase the average premium. Weaker evidence is also present for the number of accidents in relative terms, the number of accidents due to drinking in both absolute and relative terms and the number of non-fatal injuries.

A1.121 These results are similar but weaker when all the quotes are considered together and this is due to the fact that comprehensive quotes do not seem to be influenced at all by these factors.

A1.122 Thus, to summarise, these variables appear to have an effect only on the third party part of the quote.



Number of cars per capita

A1.123 There is weak evidence that car density is associated with higher premiums: significance disappears when the standard errors are calculated taking into account the within country correlation of the quotes.

Claims expenditure and scope of insurance cover

A1.124 We have used a measure of per capita health expenditure, the statutory minimum cover for persons and materials, the wage of vehicle repair workers (and also bricklayers as a proxy for vehicle repair costs) and the wage of insurance agents in our analysis.

A1.125 Health expenditure is positively associated with higher premiums only when third party only quotes are considered and not when the full sample or the comprehensive quotes only are taken into account.

A1.126 No effect at all seems to be present for the statutory minimum cover for both persons and materials. This is likely to be because the minimum is usually not a constraint: in several countries insurance policies offered cover in excess of the minimum. Also, the overwhelming majority of the claims do not even get close to the required minimums.

A1.127 Garage repairmen wages (and bricklayer wages and wages) are not associated with higher premiums, whether this is due to the fact that they are a bad proxy for repair costs or to the genuine lack of a relationship is difficult to say.

A1.128 Somewhat surprisingly high insurance agent wages seem to be associated with lower premiums in comprehensive covers and when the full sample is used together. This result is difficult to interpret from an economic point of view.

Distribution channels and competition

A1.129 We have used a number of measures of concentration in the market (the CR5 and the Herfindahl-Hirschman Index), measures of M&A activities, the percentage of re-insurance and the share of insurance that is sold directly by insurers and by independent intermediaries.

A1.130 The competition-related variables show that there is some evidence that where the market is more concentrated premiums are, on average lower than elsewhere. This is likely to be due to the fact that the scale of operation of insurance companies is an important determinant of their efficiency. It also implies that there does not seem to be a risk of collusion that is detrimental for welfare. The negative relationship is considerably stronger for third party than for comprehensive quotes.

A1.131 Premiums are higher where M&A activity has been higher over the last ten years or so. This result is robust to a number of different definitions of "M&A". Whether only domestic or foreign are considered and whether they are defined in absolute terms or on a per operator basis.



A1.132 The most likely interpretation of this fact is that where premiums are higher domestic and foreign players are spotting an opportunity to increase their profits and are thus acquiring existing companies. Thus the causal relationship would go in the opposite direction: it is not that a high level of M&A activity causes premiums to go up but rather high premiums encourage M&A. The relationship is present for all quotes third party, comprehensive and the full sample but is weaker when the comprehensive quotes only are considered.

A1.133 Finally, for the comprehensive segment of the market a higher market share of intermediaries is associated with higher premiums.

General economic conditions

A1.134 Unsurprisingly, countries with a higher per capita GDP are characterised by higher insurance premiums. This is likely to be due to the fact that the average value of cars insured is generally higher in richer economies and thus insurance premiums are, *ceteris paribus* higher. This is also confirmed by the fact that when a dummy for Central and Eastern Member States is added to the regression it is significant (for third party quotes) and negative.

A1.135 A robust negative relationship is also present between the long term government bond yield and the level of third party quotes. This can be explained by the fact that, when interest rates are high insurers earn more on their cash holdings and can therefore have lower premiums. An alternative explanation is that a higher interest rate reduces the value of future claims and hence reduces the cost of insurance companies. A third explanation is that this result can simply be due to the fact that the Member States of Central and Eastern Europe (where quotes are cheaper) usually have higher government bonds yields as they are perceived to be more risky (and this was especially true when the quotes were gathered, during the credit crunch).

Other factors

A1.136 Other factors that are associated with either higher or lower premiums are the level of excess, the standard deviation of the three cheapest quotes and the power of the car. A higher excess usually reduces the premium (but the relationship is not as robust as one might hope).

A1.137 The standard deviation of the quotes can be interpreted as a measure of uncertainty and suggests that those countries where premiums are higher also experience more variable quotes. It is even more important for consumer to shop around and find the best deal in these cases.

A1.138 Unsurprisingly, the more powerful the car the more expensive the insurance. This variable is one of the few that is more robust for the comprehensive quotes than it is for third party quotes.

A1.139 Finally there is also weak evidence that those countries that allow gender discrimination have, on average, higher premiums for third party insurance policies.



Home insurance

A1.140 Overall, home insurance quotes seem to be quite “standard” and we have been unable to find many additional factors that either increase or decrease the premium.

Material used for buildings

A1.141 In the models we estimated none of the variables related to the materials used to build the house had a statistically significant effect on the premium. All the profiles we developed however used common building materials and it is possible that more variation would be experienced if less standard materials were used in the construction process.

Share of population living in different types of accommodation

A1.142 We have included in our models the share of urban population and the population density as potential explanatory variables. These variables should provide measures of the likely size of a claim, as more urbanised states are usually richer, as well as the likelihood of a claim to take place.

A1.143 Both these variables are associated with higher premiums when the building and contents quotes are considered but are insignificant when the contents only quotes are taken into account.

Claims expenditure and scope of insurance cover

A1.144 Bricklayers’ wages, as a proxy for construction and repair costs, and insurance agents’ wages are all strongly significant and have a positive effect on the quotes.

A1.145 For the home insurance models such results are the most robust among the regressions we have performed. The cost associated with claims is clearly an important determinant of its price.

Distribution channels and competition

A1.146 There are no variables in this area that have an effect on home insurance premiums. Distribution channels and concentration measures are all insignificant in the regressions.

Other factors

A1.147 There are a number of other factors that we have attempted to take into account: the number of burglaries in the region of the property, the number of floods and the number of fires.

A1.148 Unfortunately these variables are either insignificant or have the “wrong” sign. This is the case for regional burglaries and floods in the buildings and contents models where a high number of events in the past seem to be associated with lower insurance premiums. There are probably some confounding variables that we cannot measure that are the cause of this effect.



A1.149 It seems that it is only the basic explanatory factors that are robust enough to be associated with changes in premiums: the value of the property and the amount of contents cover are the only factors having an influence on the premiums.



APPENDIX 2: LEADING MARKET OPERATORS

A2.1 This appendix has been constructed based upon returns made to us by the national supervisory bodies, or else information publicly available on the websites of those bodies, except where stated below.

- Ireland. Information based upon the IIF's 2009 Annual Report.
- France. Information based upon the CEA's European Insurance in Numbers (2008).
- USA and the Selected USA States. Information sourced from the NAIC's 2007 Market Share Report.

A2.2 In this appendix, the use of italics signifies that the market leaders relate to the non-life insurance sector as a whole.



Appendix 2: Leading Market Operators

	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia
M3PL	1. Generali	AXA Belgium	LEV	Laiki insurance	Česká pojišťovna	TrygVesta Forsikring A/S	Eesti Kindlustus
	2. Allianz Elementar	Ethias	DZI - General insurance	Cosmos Insurance	Kooperativa pojišťovna	Topdanmark Forsikring A/S	ERGO Kindlustus
	3. UNIQA	Fortis Insurance Belgium	BULSTRAD	Minerva Insurance	Česká podnikatelská pojišťovna	Codan Forsikring A/S	Salva Kindlustus
	4. Wiener Städtische	KBC Verzekeringen	BULGARSKI IMOTI	Pancyprian Insurance	Allianz pojišťovna	Alm. Brand Forsikring A/S	Seesam RKAS
	5. Donau	Winterthur	ARMEEC	General Insurance of Cyprus	Generali pojišťovna	GF-Forsikring A/S	Inges Kindlustus
Motor own damage	1. Generali	AXA Belgium	BUL INS	Laiki insurance	Česká pojišťovna	TrygVesta Forsikring A/S	Hansa Varakindlustus
	2. Allianz Elementar	Ethias	DZI - General insurance	Cosmos Insurance	Kooperativa pojišťovna	Topdanmark Forsikring A/S	Eesti Kindlustus
	3. UNIQA	Fortis Insurance Belgium	BULSTRAD	Minerva Insurance	Allianz pojišťovna	Codan Forsikring A/S	ERGO Kindlustus
	4. Wiener Städtische	KBC Verzekeringen	ARMEEC	Pancyprian Insurance	Generali pojišťovna	Alm. Brand Forsikring A/S	Seesam RKAS
	5. Donau	Winterthur	Allianz Bulgaria	General Insurance of Cyprus	Česká podnikatelská pojišťovna	GF-Forsikring A/S	Salva Kindlustus
Home	1. Generali	Fortis Insurance Belgium	Energia	General Insurance of Cyprus	Česká pojišťovna	TrygVesta Forsikring A/S	Eesti Kindlustus
	2. UNIQA	AXA Belgium	Allianz Bulgaria	Laiki insurance	Kooperativa pojišťovna	Topdanmark Forsikring A/S	ERGO Kindlustus
	3. Wiener Städtische	KBC Verzekeringen	BULSTRAD	Pancyprian Insurance	Generali pojišťovna	Alm. Brand Forsikring A/S	Hansa Varakindlustus
	4. Allianz Elementar	Dexia Insurance Belgium	DZI - General insurance	American Home Insurance	Allianz pojišťovna	Codan Forsikring A/S	Seesam RKAS
	5. Donau	Ethias	UNIQA	Allianz Generali Insurance	ČSOB pojišťovna	Forsikrings-Aktieselskabet ALKA	Salva Kindlustus



Appendix 2: Leading Market Operators

	France	Finland	Germany	Greece	Hungary	Ireland	Italy
M3PL	1. <i>Groupama</i>	If P & C Insurance Company Ltd.	Allianz Versicherung	Ethniki	Allianz	Hibernian Aviva	Allianz
	2. <i>AXA</i>	Tapiola General Mutual Insurance Company	AXA Versicherung	Intersalonika	Generali Providencia	Quinn-Direct	Fondiarria-Sai
	3. <i>COVEA</i>	Pohjola Non-Life Insurance Company	HUK-Coburg Allg. Vers.	Genike Enose	UNIQA	AXA	Milano Assicurazioni
	4. <i>Allianz</i>	Fennia Mutual Insurance Company	HUK-Coburg	Ydrogeios	K&H	FBD	Aurora
	5. <i>Generali</i>	Localinsurance Mutual Company	VHV Allg. Versicherungen	Diethnes Enosis	OTP Garancia	Zurich Insurance	Generali
Motor own damage	1. <i>Groupama</i>	If P & C Insurance Company Ltd.	Allianz Versicherung	Ethniki	Allianz	Hibernian Aviva	Allianz
	2. <i>AXA</i>	Tapiola General Mutual Insurance Company	HUK-Coburg	Intersalonika	Generali Providencia	Quinn-Direct	Fondiarria-Sai
	3. <i>COVEA</i>	Pohjola Non-Life Insurance Company	AXA Versicherung	Genike Enose	UNIQA	AXA	Milano Assicurazioni
	4. <i>Allianz</i>	Fennia Mutual Insurance Company	HUK-Coburg Allg. Vers.	Ydrogeios	OTP Garancia	FBD	Aurora
	5. <i>Generali</i>	A-Insurance Ltd.	LVM Sach	Diethnes Enosis	Union	Zurich Insurance	Generali
Home	1. <i>Groupama</i>	If P & C Insurance Company Ltd.	SV Sparkassen Versicherungen	Ethniki	Allianz	Hibernian Aviva	Generali
	2. <i>AXA</i>	Pohjola Non-Life Insurance Company	Allianz Versicherung	Alpha Asphalitisitke	Generali-Providencia	RSA	Allianz
	3. <i>COVEA</i>	Tapiola General Mutual Insurance Company	Westf. Prov. Versicherung	Phoenix-Metrolife	ING	Allianz	Fondiarria-Sai
	4. <i>Allianz</i>	Fennia Mutual Insurance Company	Provinzial Rheinland Versicherungen	Agrotike	OTP Garancia	FBD	INA
	5. <i>Generali</i>	Pohjantähti Mutual Insurance Company	R + V Allg. Versicherungen	Allianz	AEGON Hungary	Zurich Insurance	Milano Assicurazioni



Appendix 2: Leading Market Operators

	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal
M3PL	1. Balta	AB Lietuvos draudimas	Foyer assurances	Atlas Insurance PCC Ltd	Achmea Schadeverzekeringen NV	PZU S.A.	Companhia de Seguros Fidelidade-Mundial, S.A.
	2. BTA	UAB BTA draudimas	La Luxembourgeoise	Citadel Insurance plc	Interpolis Schade, NV	STU Ergo Hestia S.A.	Império Bonança - Companhia de Seguros, S.A.
	3. Parekss Apdrošināšanas Kompānija	UAB DK PZU Lietuva	AXA	Elmo Insurance Ltd	ASR Schadeverzekering NV	TU Allianz Polska S.A.	AXA Portugal - Companhia de Seguros, S.A.
	4. Ergo Latvija	UADB ERGO Lietuva	P&V Assurances	Gasamamo Insurance plc	Unive Schade NV	TUiR Warta S.A.	Companhia de Seguros Tranquilidade, S.A.
	5. If Latvia	AAS Gjensidige Baltic Lietuvos filialas	Baloise Assurances Luxembourg	Middlesea Insurance plc	Nationale-Nederland Schadeverzekering Maatschappij NV	Compensa TU S.A.	Zurich - Companhia de Seguros, S.A.
Motor own damage	1. Balta	AB Lietuvos draudimas	Foyer Assurances	Atlas Insurance PCC Ltd	Achmea Schadeverzekeringen NV	PZU S.A.	Companhia de Seguros Fidelidade-Mundial, S.A.
	2. BTA	AB IF draudimas	La Luxembourgeoise	Citadel Insurance plc	Interpolis Schade, NV	HDI Asekuracija TU S.A.	Império Bonança - Companhia de Seguros, S.A.
	3. Parekss Apdrošināšanas Kompānija	UADB ERGO Lietuva	AXA	Elmo Insurance Ltd	ASR Schadeverzekering NV	TUiR Warta S.A.	AXA Portugal - Companhia de Seguros, S.A.
	4. Ergo Latvija	UAB DK PZU Lietuva	P&V Assurances	Gasamamo Insurance plc	Allianz Schadeverzekering NV	STU Ergo Hestia S.A.	Zurich - Companhia de Seguros, S.A.
	5. If Latvia	UADB Seesam Lietuva	BaloisesAssurances Luxembourg	Middlesea Insurance plc	London Verzekeringen NV	TU Allianz Polska S.A.	Companhia de Seguros Tranquilidade, S.A.
Home	1. Balta	AB Lietuvos draudimas	Foyer Assurances	Atlas Insurance PCC Ltd	Nationale-Nederlanden Schadeverzekering Maatschappij NV	PZU S.A.	Companhia de Seguros Fidelidade-Mundial, S.A.
	2. BTA	UADB ERGO Lietuva	La Luxembourgeoise	Citadel Insurance plc	Delta Lloyd Schadeverzekeringen NV	TUiR Warta S.A.	Império Bonança - Companhia de Seguros, S.A.
	3. Parekss Apdrošināšanas Kompānija	UAB DK PZU Lietuva	AXA	Elmo Insurance Ltd	Aegon Schade NV	TU ALLIANZ POLSKA S.A.	Ocidental - Companhia Portuguesa de Seguros, S.A.
	4. Ergo Latvija	AB IF draudimas	Fortis	Gasamamo Insurance plc	Hagelunie	STU Ergo Hestia S.A.	Companhia de Seguros Allianz Portugal, S.A.
	5. If Latvia	ADB Reso Europa	P&V Assurances	Middlesea Insurance plc	UVM Verkeringsmaatschappij NV	Generali TU S.A.	AXA Portugal - Companhia de Seguros, S.A.



Appendix 2: Leading Market Operators

	Romania	Slovakia	Slovenia	Spain	Sweden	UK
M3PL	1. OMNIASIG S.A.	Allianz - Slovenská poisťovňa, a.s.	Triglav Gross Insurance Companies	Mapfre Automoviles a de Seguros y Reaseguros	Länsförsäkringar	RBS Insurance
	2. ASIROM S.A.	KOOPERATIVA poisťovňa, a.s.	Maribor Insurance Company	Allianz, cia de Seguros y Reaseguros, S.A.	IF Skadeförsäkrings AB	Aviva plc
	3. UNITA S.A.	Generali Slovensko poisťovňa, a.s.	Adriatic Slovenica Insurance Company	AXA Seguros Generales, SA	Trygg-Hansa	Zurich UKGI
	4. Allianz-Tiriac Asigurari S.A.	KOMUNÁLNA poisťovňa, a.s.	Tilia Insurance Company	Zurich España cia de Seguros y Reaseguros, S.A.	Folksam	Fortis Insurance
	5. Societatea Comerciala de Asigurari Reasigurare S.A.	UNIQA poisťovňa, a.s.	Generali Insurance Company	Linea Directa Aseguradora, S.A.	Dina Försäkringar	RSA
Motor own damage	1. Allianz-Tiriac Asigurari S.A.	Allianz - Slovenská poisťovňa, a.s.	Triglav Gross Insurance Companies	Mapfre Automoviles a de Seguros y Reaseguros	IF Skadeförsäkrings AB	RBS Insurance
	2. OMNIASIG S.A.	KOOPERATIVA poisťovňa, a.s.	Maribor Insurance Company	Mutua Madrileña Automolista, SSPF	Länsförsäkringar	Aviva plc
	3. ASIROM S.A.	Generali Slovensko poisťovňa, a.s.	Adriatic Slovenica Insurance Company	AXA Seguros Generales, SA	Trygg-Hansa	Zurich UKGI
	4. ASIBAN S.A.	KOMUNÁLNA poisťovňa, a.s.	Tilia Insurance Company	Allianz, cia de Seguros y Reaseguros, S.A.	Folksam	Fortis Insurance
	5. UNITA S.A.	UNIQA poisťovňa, a.s.	Generali Insurance Company	Zurich España cia de Seguros y Reaseguros, S.A.	Dina Försäkringar	RSA
Home	1. Allianz-Tiriac Asigurari S.A.	Allianz - Slovenská poisťovňa, a.s.	Triglav Gross Insurance Companies	Mapfre Automoviles a de Seguros y Reaseguros	Länsförsäkringar	Aviva plc
	2. OMNIASIG S.A.	KOOPERATIVA poisťovňa, a.s.	Maribor Insurance Company	Caser S.A	Folksam	RBS Insurance
	3. UNITA S.A.	Generali Slovensko poisťovňa, a.s.	Adriatic Slovenica Insurance Company	AXA Seguros Generales, SA	IF Skadeförsäkrings AB	RSA
	4. ASIROM S.A.	UNIQA poisťovňa, a.s.	Tilia Insurance Company	Santa Lucia, S.A. Compañia de Seguros y Reaseguros	Folksam	HBOS
	5. BCR Asigurari	KOMUNÁLNA poisťovňa, a.s. Vienna Insurance Group	Generali Insurance Company	BBVA Seguros y Reaseguros	Solid	Lloyds TSB Insurance



Appendix 2: Leading Market Operators

	USA	Connecticut	Maine	New Jersey	New York	Pennsylvania	Vermont
Private Auto Liability	1. State Farm Group	Allstate Ins Group	Progressive Group	Berkshire Hathaway Group	Berkshire Hathaway Group	State Farm Group	Progressive Group
	2. Allstate Ins Group	Berkshire Hathaway Group	State Farm Group	Allstate Ins Group	Allstate Ins Group	Erie Ins Group	State Farm Group
	3. Berkshire Hathaway Group	Progressive Group	Liberty Mutual Group	New Jersey Manufacturers Group	State Farm Group	Allstate Ins Group	Allstate Ins Group
	4. Progressive Group	Travelers Group	Allstate Ins Group	State Farm Group	Progressive Group	Nationwide Corp Group	Berkshire Hathaway Group
	5. Zurich Ins Group	Nationwide Corp Group	Berkshire Hathaway Group	Palisades Group	Travelers Group	Progressive Group	Concorde Group
Private Auto Total	1. State Farm Group	Allstate Ins Group	State Farm Group	Allstate Ins Group	Berkshire Hathaway Group	State Farm Group	Progressive Group
	2. Allstate Ins Group	Berkshire Hathaway Group	Progressive Group	Berkshire Hathaway Group	Allstate Ins Group	Allstate Ins Group	Allstate Ins Group
	3. Progressive Group	Progressive Group	Allstate Ins Group	New Jersey Manufacturers Group	State Farm Group	Erie Ins Group	State Farm Group
	4. Berkshire Hathaway Group	Travelers Group	Liberty Mutual Group	Palisades Group	Progressive Group	Nationwide Corp Group	Berkshire Hathaway Group
	5. Zurich Ins Group	Liberty Mutual Group	Berkshire Hathaway Group	State Farm Group	Travelers Group	Progressive Group	Concorde Group
Homeowners Multi-peril	1. State Farm Group	Allstate Ins Group	State Farm Group	Allstate Ins Group	Allstate Ins Group	State Farm Group	Vermont Mutual Group
	2. Allstate Ins Group	Travelers Group	Liberty Mutual Group	State Farm Group	State Farm Group	Allstate Ins Group	Co operative Ins Group
	3. Zurich Ins Group	Chubb & Son Inc Group	White Mountains Group	Chubb & Son Inc Group	Travelers Group	Erie Ins Group	Union Mutual Fire Ins Group
	4. Nationwide Corp Group	Liberty Mutual Group	Allstate Ins Group	New Jersey Manufacturers Group	Chubb & Son Inc Group	Nationwide Corp Group	State Farm Group
	5. Travelers Group	Hartford Fire & Cas Group	MMG Ins Group	Liberty Mutual Group	Liberty Mutual Group	Travelers Group	Allstate Ins Group



APPENDIX 3: MOTOR INSURANCE PROFILES

		Profile 1: M3PL, fire and theft	Profile 2: M3PL only	Profile 3: M3PL only
Vehicle details	Manufacturer	Toyota	Honda	BMW
	Model	Yaris VVT-i (T Spirit or T ₃)	Civic EX I-Vtec	X5 DM Sport
	Year of registration	2006	2009	2008
	New vehicle	No	Yes	No
	Engine capacity	1330cc or 1.33 litres (EU); 1500cc or 1.5 litres (USA)	1800 cc (or 1.8 litres)	3000 cc (or 3.0 litres)
	Power	79 kW h	104 kW h	198 kW h
	Gross Vehicle Weight	1,530 kg	1,620 kg	3,000 kg
	Turbocharged	No	No	No
	Colour	Black	Grey/Light	Black
	Doors	3	5	5
	Seats	5	5	5
	Petrol/diesel	Petrol	Petrol	Diesel
	Manual/automatic	Manual	Manual	Automatic



Appendix 3: Motor Insurance Profiles

	LH/RH	RH in UK, Ireland, Malta and Cyprus LH elsewhere		
	Type of mileage	Social and commuting	Social	Social and Business
Mileage (and km equivalent) — total and per annum	30,000 km ¹³¹ total 12,000 km per annum	0 total (as new) 8,500 km per annum (expected)	20,000 Km total 20,000 Km per annum	
Car storage location	Street	Garage	Lockable garage	
Other car properties	Front Air bags ABS	Lateral and front Air bags No ABS	Lateral and front Air bags ABS	
Theft protection devices (alarm, tracker)	No	Factory fitted Alarm	Factory Fitted Alarm	
Market value	€8,500	€25,000	€42,000	

¹³¹ 1 mile = 1.609 km; 1 km = 0.621 miles



Appendix 3: Motor Insurance Profiles

	Ownership (outright, leased)	Outright	Outright	Outright
	Vehicle acquisition date	2007	2009	2009
Driver details	Age	22 (i.e. DOB 1987)	50 (i.e. DOB 1959)	38 (i.e. DOB 1971)
	Gender	M and F	F only	M and F
	Driving violations	No	No	No
	Non-driving criminal record	None	None	None
	Job	Carpenter, employed	Medical Doctor for National Health Service (or equivalent), i.e. employed	Photographer, i.e. self-employed
	Academic level	Left School at earliest level (i.e. 15-16 years-old)	Post-graduate	Graduate
	Geography/location	Main city (e.g. London, Milan, Barcelona, Bucharest, Stockholm)	Small city (e.g. Oxford, Bologna, Bilbao, Cluj, Uppsala)	Suburban area (not in the centre of a city)
	Property	Apartment (resident 3 years)	Apartment (resident 2 years)	Semi detached house (resident 2 years)
	Marital status	Single	Married	Single
	Years of driving experience (i.e. date of driver's licence)	3 (continuous, insured throughout)	32 (continuous, insured throughout)	18 (continuous, insured throughout)



Appendix 3: Motor Insurance Profiles

Advanced driving qualification held	No	No	No
Number of other drivers	0	0	0
Years of driving experience (other drivers)	N/A	N/A	N/A
Insurance previously declined	No	No	No
Citizenship	Of the state where the quote obtained	(a) Slovak (Czech when data gathered in Slovakia) and (b) citizen of state	Of the state where the quote obtained
Citizenship of EU state	Yes	Yes	Yes
Residency in country	Since birth	(a) 5 and (b) since birth	Since birth
Home ownership	No	Yes	Yes
Children under 16	No	No	No
Drivers under 25	0	0	0
Cars in household (total including this one)	1	1	1



Appendix 3: Motor Insurance Profiles

	DVLA (or equivalent) reportable medical conditions	No	No	No
Claim and insurance details	Previous claims record (including no claims bonus/years without accident)	3 years no claims	10 years no claims	1 year no claims (accident, no fault, damage value €1,200)
	Other drivers to be insured, and claims record	No	No	No
	Start date	3 April 2009 (if the day on which data gathered was later than this, the <i>next day</i> after the date on which the information gathering took place was taken as the start date)		
	Voluntary excess	€nil	€nil	€nil
	Payment method	Annual	Annual	Annual
	Breakdown cover	No (if option given)	No (if option given)	No (if option given)
	Legal assistance	No (if option given)	No (if option given)	No (if option given)
	Windscreen cover	No (if option given)	No (if option given)	No (if option given)



Appendix 3: Motor Insurance Profiles

	Courtesy car	No (if option given)	No (if option given)	No (if option given)
	Personal accident cover	No (if option given)	No (if option given)	No (if option given)
Other	Smoking status	No	No	No
	Value of any accessories to vehicle	€0	€0	€0
	Trailer	No	No	No
	Value of trailer	€0	€0	€0



Appendix 3: Motor Insurance Profiles

		Profile 4: Motor comprehensive	Profile 5: Motor comprehensive	Profile 6: Motor comprehensive
Vehicle details	Manufacturer	Volkswagen	Ford	Audi
	Model	Golf GTI (in USA, "GTI")	Focus	A4 Quattro
	Year of registration	2009	2004	2006
	New vehicle	Yes	No	No
	Engine capacity	2000 cc (or 2.0 litres)	2000 cc (or 2.0 litres)	2976 cc (or 3.0 litres)
	Turbocharged	No	No	No
	Power	149 kW h	104 kW h	190 kW h
	Gross Vehicle Weight	1,850 kg	1,590 kg	2,145 kg
	Colour	Red	Grey/Light	Red
	Doors	5 (NB USA does not always count hatch as a door)	5 (NB USA do not always count hatch as a door)	4



Appendix 3: Motor Insurance Profiles

Seats	5	5	5
Petrol/diesel	Petrol	Petrol	Petrol
Manual/automatic	Manual	Manual	Manual
LH/RH	RH in UK, Ireland, Malta and Cyprus LH elsewhere		
Type of mileage	Social and commuting	Social	Social and commuting
Mileage (and km equivalent) — total and per annum	0 km total 12,000 km per annum	50,000 km total 9,500 km per annum	25,000 km total 8,500 km per annum
Car storage location	Off street, e.g. driveway	Off street, e.g. driveway	Lockable garage
Other car properties	Lateral and front Air bags No ABS	Lateral and front Air bags No ABS	Lateral and front Air bags No ABS
Theft protection devices (alarm, tracker)	Factory fitted Alarm	None	Factory Fitted Alarm
Market value	€20,000	€7,500	€20,000



Appendix 3: Motor Insurance Profiles

	Ownership (outright, leased)	Outright	Outright	Outright
	Vehicle acquisition date	2009	2009	2006
Driver details	Age	32 (i.e. DOB 1977)	21 (i.e. DOB 1988)	68 (i.e. DOB 1941)
	Gender	M and F	M and F	M and F
	Driving violations	No	No	No
	Non-driving criminal record	None	None	None
	Job	Bar Manager, employed	Student	Company Director, i.e. self-employed
	Academic level	Left school at 18	At university	Left School at earliest level (i.e. 15-16 years-old)
	Geography/location	Main city (e.g. London, Milan, Barcelona, Bucharest, Stockholm)	Small city (e.g. Oxford, Bologna, Bilbao, Uppsala, Cluj)	Suburban area (not in the centre but close to a major city)
	Property	Apartment (resident 1 year)	Apartment (resident 2 years)	Detached house (resident 10 years)
	Marital status	Married	Single	Married



Appendix 3: Motor Insurance Profiles

	Years of driving experience (i.e. date of driver's licence)	14 (continuous, insured throughout)	3 (continuous, insured throughout)	35 (continuous, insured throughout)
	Number of other drivers (in countries where this is required)	No	No	No
	Years of driving experience (other drivers)	N/A	0	0
	Advanced driving qualification held	No	2	N/A
	Insurance declined previously	No	No	No
	Citizenship	Of the state where the quote was obtained	Of the state where the quote was required	Of the state where the quote was required
	Citizenship of EU state	Yes	Yes	Yes
	Residency in country	2	From birth	30
	Home ownership	No	No	Yes
	Children under 16	No	No	No
	Drivers under 25	No	No	No



Appendix 3: Motor Insurance Profiles

	Cars in household (total including this one)	1	1	1
	DVLA (or equivalent) reportable medical conditions	No	No	No
Claim and insurance details	Previous claims record (including no claims bonus/years without accident)	0 years no claims (i.e. one recent claim, accident, value €1,000. No other vehicle involved and no personal injuries)	3 years no claims	20 years no claims
	Other drivers to be insured, and claims record	N/A	N/A	N/A
	Start date	3 April 2009 (if the day on which data gathered was later than this, the <i>next day</i> after the date on which the information gathering took place was taken as the start date)		
	Voluntary excess	€nil	€nil	€nil
	Payment method	Annual	Annual	Annual
	Breakdown cover	No (if option given)	No (if option given)	No (if option given)
	Legal assistance	No (if option given)	No (if option given)	No (if option given)
	Windscreen cover	No (if option given)	No (if option given)	No (if option given)
	Courtesy car	No (if option given)	No (if option given)	No (if option given)



Appendix 3: Motor Insurance Profiles

	Personal accident cover	No (if option given)	No (if option given)	No (if option given)
Other	Smoking status (as a distraction)	No	No	No
	Value of any accessories to vehicle	€0	€0	€0
	Trailer	No	No	No
	Value of trailer	€0	€0	€0



APPENDIX 4: HOME INSURANCE PROFILES

		Profile 7: Buildings and contents combined, and contents only	Profile 8: Buildings and contents	Profile 9: Buildings and contents
Property details	Market value	Determined by the researcher		
	Construction value	Assumed construction value (or rebuild cost) equal to 50 per cent of the market value. Where relevant, assumed that the market value of the apartment block was the market value of one apartment*10 (i.e. assuming 10 equivalent apartments in whole block). The same approach was applied to the construction value.	Assumed construction value (rebuild cost) equal to 50 per cent of market value	Assumed construction value (rebuild cost) equal to 50 per cent of market value)
	Location	Centre of a major city (e.g. London, Milan, Barcelona, Bucharest, Stockholm)	Rural	Suburbs of a city
	Floor area (m ²)	100	180	90
	Type (detached, apartment)	Apartment	Detached house	Terraced house
	Level (if apartment)	3	n/a	n/a



Appendix 4: Home Insurance Profiles

Number of storeys to apartment	1	2	2
Number of bathrooms	2	2	1
Number of fireplaces	0	1	0
Wiring type	Copper	Copper	Copper
Electrical system	Circuit breakers	Circuit breakers	Circuit breakers
Heating system	Gas central heating	Gas central heating	Gas central heating
Construction materials used (wall and roof)	Wall: concrete Roof: concrete (flat)	Wall: bricks Roof: tiles (sloping)	Wall: bricks Roof: tiles (i.e. sloping)
Number of bedrooms	3 (<i>plus</i> kitchen, living room and 2 bathrooms)	4 (<i>plus</i> living room, dining room, kitchen, as well as 2 bathrooms as above)	2 (<i>plus</i> kitchen, living room and bathroom)
Extensions	No	No	No
Garage/out-buildings	No	Yes (single garage)	No
Date built	1900	1930	1990



Appendix 4: Home Insurance Profiles

		Whole contents cover assumed as per capita GDP of the country		
	Contents value	Where relevant, within this overall cover limit, high risk items cover taken to be 25 per cent of per capita GDP. Within this, individual items cover taken to be 5 per cent of per capita GDP (being jewellery/watches).		
	Safe	No	No	No
	Occupied during day	No, except weekend	Yes	No, except weekend
	Swimming pools, hot tubs or trampolines	No	No	No
	Condition of plumbing, heating, electrics, state of repair generally	Good condition	Good condition	Good condition
	Nature of alarm system (e.g. notification to police)	Standard alarm (not linked to the police). Not professionally fitted/maintained.	None	None
	Smoke alert system	Yes	Yes	Yes
	Front door locks	Multi point lock system	Multi point lock system	Multi point lock system
	Front door self-contained	No	Yes	Yes



Appendix 4: Home Insurance Profiles

	Door construction details	Armoured	Standard	Armoured
	Other exit door locks	No other exits	Multi point lock system	Multi point lock system
	Window locks	Lock fitted	Lock fitted	Locks fitted
	Neighbourhood watch programmes or equivalent	No	No	No
	More than 500m from urban centre	No	Yes	No
	Distance from fire station	0.5 km	15 km	1.5 km
	Distance from fire hydrant	50 m	1,000 m	50 m
	Doorman or hired security professionals	No	No	No
	Building equipped with pedestrian or outside vehicle control	No	No	No
Person details	Age	45 (i.e. DOB 1964)	65 (i.e. DOB 1944)	35 (i.e. DOB 1974)



Appendix 4: Home Insurance Profiles

	Gender	M or F	M or F	M or F
	Nature of tenure	Owner	Owner	Owner
	Duration of tenure (years)	20	25	5
	Insured for (years)	20	25	5
	Residence	Permanent, main residence, with no business activity	Permanent, main residence. No business use	Permanent, main residence without business use
	Length of unoccupied periods	14 days max	14 days max	14 days max
	Criminal record	None	None	None
	Job detail	University Professor, i.e. employed	Retired	Newsagent, i.e. self-employed
	Marital status	Married	Married	Married
	Insurance previously declined	No and insured throughout	No and insured throughout	No and insured throughout
	Residency in country	Since birth	Since birth	Since birth
	Children under 16	2	0	1



Appendix 4: Home Insurance Profiles

	Pet ownership	No	Yes (one dog)	No
	Property for sale	No	No	No
	Ongoing building work	No	No	No
	Property mortgaged	No	No	Yes
	Personal bankruptcy	No	No	No
	Smoker	No	No	Yes
Claim and insurance details	Previous claims record (e.g. burglary)	No claims in the past	No claims in the past	One claim in 2007 (burglary, value equal to 5 per cent of contents value, i.e. 5 per cent of per capita GDP of the country)
	Start date	3 April 2009 (if the day on which data gathered was later than this, the <i>next day</i> after the date on which the information gathering took place was taken as the start date)		
	Voluntary excess	€nil (buildings and contents)	€nil (on both buildings and contents)	€nil (both buildings and contents)
	Payment method	Annual	Annual	Annual
	Accidental damage cover	No	No	No
	Trees near property, tree damage in past	No	Trees near property, but no tree damage sustained	No



Appendix 4: Home Insurance Profiles

	Evidence of subsidence or landslip in past	No, i.e. no cracking or bulging in walls ever; no underpinning or structural support ever	No, i.e. no cracking or bulging in walls ever; no underpinning or structural support ever	No, i.e. no cracking or bulging in walls ever; no underpinning or structural support ever
	Flooding damage	No, and not near water	No, and not near water	No, and not near water