1. INTRODUCTION

Insurance can be defined as an instrument for managing and coping with risk. Given the existence of a probability that a future loss will actually occur, insurance replaces the uncertainty of a loss occurring in exchange for a premium, which can be thought of as a guaranteed and known small loss to prevent a large, and possibly devastating, loss.¹

Following Abraham (1995), insurance plays three economic functions. The first function is risk transfer: the risk is transferred from a risk-averse individual to the risk-neutral insurer.² The second function is risk pooling. By insuring numerous policyholders, the “uncertainty” of the individual insured is converted by the insurer’s “certainty” that this risk will occur to some of its customers. The third function is risk allocation: the price each insured party pays should reflect the risk he contributes.

Given the overall outcome of the three above-mentioned economic functions, insurance contracts enhance social welfare, while at the same time inducing people to take cost-justified precautions, internalizing damage. Furthermore, insurance encourages the risk-averse insured party to make investments that they would not make otherwise. Meanwhile, life insurance plays a role as a long-term investment and savings instrument (Shavell, 1982 and 2000).

The insurance business has become highly important to society’s prosperity and development and the importance of the insurance industry has led legislators to heavily regulate this sector.

This regulation includes competition policy, as we will see in the following section; the asymmetric information issue will be examined, particularly risk

¹ For an in-depth discussion about the differences between risk and uncertainty: see Knight (1921).
² Risk aversion is due to the diminishing marginal utility principle: people prefer to retain an assured value rather than an equivalent uncertain one, and are willing to pay a premium to eliminate what they consider undesirable risk. In the case of risk neutrality, as long as the expected value remains equal, the insurer does not have any preference regarding it.
classification and information exchange, in the third section. Regulation to ensure consumer protection and the instrument of rate control will be analysed in the fourth section. The solvency issue and the regulatory rules imposed at EU and international level will be the topics of the fifth section. Finally the question of insurance market supervision will be discussed together with an analysis of the recent proposal for a single European supervision authority.

Insurance will be examined without distinguishing between insurance lines (life, non-life, casualty and property insurance), although there are significant differences between them. Furthermore, this chapter will focus only on commercial insurance, and not on public social securities and insurance programs, and will consider private consumers, and not business insurance.

2. REGULATION TO SAFEGUARD COMPETITION

In the insurance market, as in every other market, competition is a means of achieving economic efficiency because perfectly competitive market equilibrium is characterized by Pareto optimality.3

For a market to be competitive certain conditions must hold: numerous consumers and producers with no market power (all are price takers); no collusion between the agents; in the long run, free entry and exit to and from the market for the producers; homogeneity of the products and no quality differences for the consumers; zero transaction costs; perfect information for producers and consumers (Areeda and Kaplow, 1988).

Usually, competition regulation is justified on the basis that, in reality, the conditions required for perfect competition are not completely fulfilled. Moreover, competition and market structure are strongly linked and therefore collusion, market power and entry barriers should be rejected, unless the circumstances for a natural monopoly exist. Competition regulations are aimed at protecting and maintaining competition, by preventing collusion and market power abuse, as well as by setting guidelines for commercial conduct and fair competition (Viscusi et al., 2000). For these reasons, European legislators have enacted numerous norms that will be analysed in the following section.

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3 For a comprehensive definition of market efficiency and Pareto optimality, see Cooter and Ulen (1988, ch. 2).
2.1 Competition Policy and Insurance Regulation in the European Union

In the EU, competition policy is not only aimed at maximizing economic efficiency, but it has another important goal: facilitating a common integrated market, as the primary objective of the European Union. With this background, competition policy has gained a quasi-constitutional status, which affects the relationship between competition and regulation (OECD, 2005).

Competition policy guidelines are defined in the Treaty on the Functioning of the European Union (TFEU), and further expanded by the European Council and Parliament, as well as by Member States at the state level. The policy is enforced by the European Commission as a Union level competition authority, the decisions by the Court of First Instance and the European High Court of Justice and by Member States’ competition authorities and courts. EU authorities enforce Community policy, while national authorities may apply both Community policy and national competition laws.

Article 101(1) of TFEU prohibits “… all agreements between undertakings … and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the common market …”. In particular, price-fixing or trading conditions are prohibited. Article 101(2) voids such agreements and practices. Article 101(3), as a general exemption, mitigates the voidance: agreements may be allowed if they are necessary to improve production, distribution, technical or economic progress; as long as they allow consumers a fair share of the benefit and only in so far as they do not eliminate competition in respect of a substantial part of the products in question.

Union level insurance regulation evolved in three stages. The first generation of regulation was the adoption of directives that were aimed at facilitating the freedom of establishment for non-life (property and casualty) insurance in 1973 and for life insurance in 1979. The second generation included the legislation of two directives, in 1988 for non-life insurance and in 1990 for life insurance with the core of the abolition of prior approval of terms and premiums. The objective of the third generation was the installation of a single market regulatory system in the “Europe 1992” directives, for non-life insurance as well as life insurance.

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The main regulatory change was from state regulation to a single insurance market: prior to opening the insurance market by the second and third directives, it was mostly national (except for re-insurance and co-insurance), subject to national regulations. Therefore, as far as competition was concerned, the cooperation between insurers was also on a local level and did not have a substantial effect on interstate trade.

Regarding interstate trade, the basic choice the EU faced was between subjecting insurers to the control of their home state or to that of the host state. The advantage of host regulation is that consumers are not affected by the implications of regulatory differences. On the other hand, the host regulation approach forces multi-state providers to comply with many different requirements, which results in inefficiency and insurers’ reluctance to operate interstate. Yet home regulation might result in regulatory competition: in order to attract foreign investors to establish their insurance business in their territory, Member States might enact minimal, even insufficient, regulatory requirements, which would eventually harm the industry and the policyholders.7

Against this background, the third generation directives decided upon a shift to home regulation. This move has the following pillars: a single licensing system and home control over ongoing businesses; home supervision of the insurer’s financial stability and administrative structure before granting authorization to open abroad; notification about business expansion into the host state given by the home authorities; lastly, mutual recognition and acceptance by every Member State, as a host, of any establishment of a branch or other form of insurance service provider registered in another Member State, even if its own requirements for the establishment of insurance business are stricter than those of the insurers’ home state.

In the United States, where there are also state antitrust laws, anti-competitive behaviour is mostly dealt with by the Sherman Act. This is enforced by four means: the broadest supervision is by the Federal Trade Commission, which can declare a practice anti-competitive and therefore illegal. Other enforcement branches are the Department of Justice, the State Attorney General and private suits. Antitrust law is intensively shaped and enforced by the Supreme Court.

As far as the US insurance sector is concerned, regulation flourished in the early decades of the last century, went through a deregulation process during the 1970s, and recuperated, not without debate, after a crisis occurred in the insurance market in the 1980s (Priest, 1987).

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7 This is the outcome of a race to the bottom. In the case of a race to the top, the opposite outcome would follow, with a consequent reduction in competition because of the stricter regulatory requirements.
Like the EU, the US faced a dilemma between state and national insurance regulation, but the US chose to go in the opposite direction, and allocated the regulatory power to the states, exempting state-regulated insurance businesses from federal antitrust law. Unlike the EU single market approach, an insurer in the US is subject to the regulation of each and every state it operates in (OECD, 1998). These differences obviously increase insurers’ transaction costs, compared with a uniform federal system. On the other hand, state regulation can be better “tailored” according to local risks and needs (Lemaire and Subramanian, 1997).

3. REGULATION OF ASYMMETRIC INFORMATION ISSUES

The insurance market is characterized by the fundamental problem of dual asymmetric information. On the one hand, insured individuals do not have complete information or understanding of complicated insurance contracts and lack the ability to assess the adequacy and proportionality of their premium to their risk: the related regulatory problems of consumer protection will be addressed in the following section. On the other hand, insurers suffer from lack of information regarding the risk posed by a given insured individual: that aspect of the asymmetry leads to the two phenomena of moral hazard and adverse selection.

Moral hazard depends on insurers’ lack of information on the extent to which their customers’ behaviour may affect the occurrence and/or the dimension of the loss. Provided that such behaviour cannot be monitored by the insurer at a reasonable cost, the insured individual has no incentive to take the optimal amount of care in order to avoid the loss or to reduce its magnitude.

To be precise, the term moral hazard refers to at least two different situations in which the insured’s behaviour can affect the probability of the various outcomes. The first situation is where insurance may induce greater use of a service by an insured individual or cause the insured individual to exercise less care. The second is when an insured individual purposely causes harm or otherwise falsifies loss in order to collect insurance benefits or to inflate the cost of loss.8

So in the case of moral hazard, the insured’s behaviour changes after purchasing an insurance policy. The reduction of risk-reducing conduct leads

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8 This is the phenomenon of frauds by insured individuals against insurance companies. For an analysis with specific reference to the Italian case, see Porrini (2002).
to higher risks and higher insurance costs. The premise for moral hazard development is the change in the insured’s behaviour, and the inability of the insurer to either predict this change in advance or to prevent it by considering such behaviour as a case of exemption from the insurance contract coverage (Shavell, 1979).

In this case, as a remedy, it is important to monitor the insured’s behaviour, *ex ante or ex post* the occurrence of the loss: *ex ante*, to monitor the level of care in preventing the loss, insofar as the insured’s behaviour has any influence on the risk; *ex post*, to monitor the amount of claim when loss occurs, beyond the services the claimant would purchase if not insured and assuming the insured individual can influence the magnitude of the claim.

Adverse selection, that is, the “market for lemons” (Akerlof, 1970), arises because the parties wishing to purchase insurance often know much more about their particular circumstances than it is possible for the insurers to know. Asymmetric information leads to adverse selection in the insurance pool, as high-risk individuals find insurance to be a good deal for them, but low-risk individuals decide to forego insurance coverage. As more high-risk individuals purchase insurance, higher pay-outs by insurance companies will force them to raise rates which, in turn, makes the insurance less attractive to low-risk individuals. So the effect in the market is that adverse selection raises the cost of insurance, forcing low-risk customers to subsidize high-risk individuals up to the point where the former are induced to drop out of insurance; which, in turn, raises the cost of insurance again and induces more and more customers to drop out of the market.9

As a result, it is clear that moral hazard and adverse selection problems play a central role in the insurance market and the necessity to correct severe market failures arising because of incomplete information by the method of risk classification that can be a source of regulatory problems.

### 3.1 Risk Classification

The law and economics approach considers risk classification on the basis of informational market failure to see whether it might reduce transaction costs and discourage opportunistic behaviour, which includes moral hazard and adverse selection.

Theoretically, in determining the premium to be charged, insurers should estimate the expected losses for each individual being insured. Accordingly, insurance companies use risk classification systems in an attempt to ensure

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that individuals are grouped in such a way that those with a similar likelihood of loss are charged the same premium.

The insurer has to identify risks that are independent, uncorrelated and equally valued and to aggregate them in order to reduce the total risk of the set.\textsuperscript{10} By identifying independent risks and aggregating them into a risk pool, exploiting the law of large numbers,\textsuperscript{11} insurers employ a variety of methods to narrow risk pools. Distinguishing in these various ways among insured individuals increases the availability of insurance because it makes market insurance more attractive to those who are relatively low risk.

The risk classification systems are clearly supported by statistical data showing differences in the event rate in different groups.\textsuperscript{12} So, for example, if women have fewer car accidents than men, this allows different premiums to be charged. And, from the insurer’s point of view, differentiated premiums are not unfairly discriminatory if they are actuarially accurate.\textsuperscript{13}

An efficient risk classification reduces adverse selection, because it makes insurance more attractive to the low-risk members of the pool. In fact, placing insured individuals into separate risk pools according to their specific exposure to risk allows insurers to charge premiums that are as close as possible to the insured’s expected loss, thus attracting also the relatively low-risk customers who would otherwise drop out of insurance, finding it too expensive. At the end of the day, this virtuous process increases the availability of insurance to the whole society.

In determining whether risk classification is efficient, variable characteristics, such as homogeneity, separation, reliability, causality, social acceptability, and incentive value, are important. Homogeneity means that since all members

\textsuperscript{10} Risks that are uncorrelated are risks for which the incidence of loss is spread out, either in terms of time or in terms of the individuals suffering the loss. As long as the risks of the pool members are uncorrelated, that is, statistically independent, the insurer can accumulate a small premium from each insured individual and still have funds sufficient in any period to pay those losses that actually occur.

\textsuperscript{11} The law of large numbers is the empirical phenomenon which holds that the probability density function of average loss tends to become concentrated around the mean as the sample number increases. Applied to insurance, the law of large numbers means that as the number of insured individuals possessing independent and identically valued risks increases, the accuracy of prediction of expected loss for each individual rises and increasing predictive accuracy reduces the effective risk faced by the insurer, since the level of aggregate risk is a function of the variance of expected outcomes. See Dionne and Harrington (1992).

\textsuperscript{12} For a theoretical survey, see Crocker and Snow (1986); for an empirical analysis, see Dahlby (1983).

\textsuperscript{13} The use of some variables of classification could in certain cases be seen as “discriminatory” in respect of specified categories of individuals. On this issue, see Chamberlin (1985); Abraham (1995).
of a class pay the same premium, their risk of loss should be as close as possible. Separation measures the extent to which the mean expected losses of the class would have to differ in loss expectation to warrant their identification as a separate class. Reliability measures whether practical and easily observable differences are used to classify the insured and so measures the accuracy of classifications. Causality measures whether class distinctions are based on characteristics causally related to loss. Social acceptability measures the extent to which a variable is consistent with public policy. Incentive value means that a fair class system should classify the characteristics within the insured’s control in order to provide an incentive to adopt low-risk characteristics.

To provide an efficient risk classification, the statistical techniques are implemented by contracts and these are legally enforceable: one problematic aspect is the insured party’s lack of incentive to disclose information necessary for the insurer to define efficient risk classifications. From a comparative law perspective, similar rules characterize insurance law in the main legal systems. In Common Law, for instance, the same function is performed by the “utmost good faith”, *uberrimae fidei* doctrine (Rea, 1993). The insurer can refuse to pay an insurance claim on the grounds that the insured individual withheld information prior to the formation of the contract. The information must be such that it would have influenced the premium charged or the insurer’s decision to accept a risk. The aim of the legal intervention described is therefore to impose a requirement for the correct disclosure of all information deemed material so that the insurer may classify the risk presented by each insured party.

### 3.2 Exchange of Information

In reality, given insurance companies’ difficulties in obtaining data on the insured’s characteristics and behaviours, information exchange can be seen as a useful instrument that allows insurance companies to improve their own information about their contractual counterparts. As we have just seen, in relation to the application of remedies to asymmetric information problems, at the screening stage, insurance companies need information about insured individuals’ risk profile. After the policy is signed, insurers need information about customers’ behaviour to monitor the actions taken by the insured individuals.14

A further argument in support of the advantages that can be derived from the exchange of information comes from the utility of data on customers’ risk characteristics; this constitutes precious information that can improve the quality of the contracts supplied. As in Padilla and Pagano (2000), the

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14 One relevant seminal contribution is Hoy (1982).
exchange of information within the banking market, and in the insurance market, reduces the lock-in effects that we can have when customers deal with banks or insurance companies that they have used before. While this is a disadvantage for the firm *ex post*, it constitutes an advantage *ex ante* in initial contracting, avoiding the problem associated with reduced market penetration due to asymmetric information. In this sense, more information can induce greater competition.

This suggests that possible benefits can be derived from information exchange in the insurance market. But exchange of information behaviour can be considered an anti-competitive practice because of its mere potentiality for giving rise to a collusive equilibrium.\(^\text{15}\) In other words, information exchange behaviour can be included in the facilitating practices, defined as practices that try to limit the influence of factors that destabilize cooperative outcomes and to enhance the factors that support cooperative outcomes. So, even if information-sharing in itself is not detrimental to welfare or a restriction on competition, the competition authorities may concentrate on detecting specific information exchanges that serve to sustain explicit and tacit collusion.

The evaluation of information exchange behaviour as a facilitating practice comes from the fact that attempts to collude are often accompanied by intensified communication between firms; usually collusive behaviour is not directly verifiable by the national Antitrust Authorities.\(^\text{16}\) Given that an effective policy against collusion has to rely on suppressing only the behaviours facilitating collusion, the correlation between communication and collusion shows this behaviour is a particularly credible sign of anti-competitive conduct.\(^\text{17}\)


\(^{16}\) “The concept of ‘facilitating practices’ refers to conduct by firms, typically in an oligopolistic market, which does not constitute an explicit, ‘hardcore’ cartel agreement, and helps competitors to eliminate strategic uncertainty and coordinate their conduct more effectively. Information exchanges are the most common facilitating practice, but competition authorities have investigated a wide range of other practices as well” (OECD, 2008, p. 7).

\(^{17}\) “The prominent role of communication in collusion cases suggests that restrictions on communication may be among the more powerful instruments to fight collusion. I will argue that certain types of communications are so highly correlated with collusion and have such a small likelihood of efficiency benefits that they are good targets for anti-trust enforcement” (Kuhn, 2001, p. 171).
The economic advantage of a facilitating practice consists of the effect on the firm’s environment such that every firm has the appropriate incentive to follow an industry joint profit maximizing strategy. As Kuhn and Vives (1995) make clear, the sharing of information among firms produces the benefit of being better informed – the so-called precision effect – about the choices of all the firms operating in the market, with subsequent collusion on a joint target.

So exchange of information behaviour is regarded as a facilitating practice in the case where the competition authority cannot directly combat collusion on price. This is quite common for two reasons. First of all, collusion is notoriously difficult to prove in court due to the scarcity or lack of statistical evidence that goes with collusive agreements. Second, in many cases there are no explicit collusive agreements in a legal sense, but only forms of tacit collusion. Nevertheless it is important to identify the specific type of information involved in the exchange because different kinds of information imply different potentially collusive effects (Peeperkorn, 1996).

In this sense, we can distinguish between exchange of information that consists of communication about planned future conduct in the market, such as planned prices, production and capacity expansion – so-called soft information, and exchange that consists of communication about the current situation and past conduct of the firm, such as information about customers, orders, input prices, past decisions – so-called hard information, which is commonly the object of exchange of information with collusive intent. Data on current or recent past behaviour is the type of information that can be expected to decrease the likelihood of collusion. In fact, “information exchange agreements are arrangements between firms in which they exchange data about the current state of the market or about past behaviour but not about future intended conduct” (Kuhn, 2001, p. 187).

This comes from theoretical considerations about the fact that the imperfect observability of rivals’ actions makes collusion more difficult in the sense that periodic price wars are needed to sustain collusive outcomes. If past price and production choice can be revealed, the problem can be eliminated through information exchange and this facilitates collusion in the market (Green and Porter, 1984).

Another distinction can be made between aggregate and individual data. Exchange of the latter kind of data is in general more likely to help collusion than the exchange of aggregate data concerning the whole market. Information on individual firms can be used as an instrument to monitor the firm’s behaviour. And this instrument is more precise if the information exchange is frequent. In fact, the higher the frequency of the information exchange, the higher in general the likelihood of collusion.

A third distinction concerns private and public information. The exchange of data available to the public seems to be harmless in terms of
market competition. The exchange of private information can be seen as behaviour that makes collusion easier, but in one instance the exchange of public information about intended future price can be seen as pro-collusive behaviour because this constitutes a kind of commitment with competition distorting effects.

Another very important point in defining information exchange as a collusive behaviour is the structure of the market. Economic theory teaches that collusion becomes in general more difficult when a number of factors increase: the number of firms in the market, product heterogeneity, inequality between companies concerning demand and costs, uncertainty about demand and costs, rate of technological development and threat of entry. Collusion becomes more difficult for three reasons. Each company’s market share diminishes and therewith the interest in staying within a collusive arrangement. Differences between the companies and their products result in increased divergence of interests between them. More information is required in order to monitor each other’s behaviour. In other words, the incentives for free-riding increase, while the possibility of detecting and punishing free-riding diminishes (Peckerkorn, 1996).

In the economic literature, the anti-competitive effects of information-sharing have been demonstrated only with respect to an oligopolistic market. However, the evaluation of information exchange as a facilitating practice cannot be completely linked to the configuration of the market, so the typical behaviour of facilitating the collusive maximization of joint profit is not only shown by firms operating in an oligopolistic market.

In terms of market functioning, information exchange behaviour, because of its effect of distorting competition, would normally be regulated, as we will see in the following sections, by the EU Commission.

### 3.3 Information Exchange in the EU Decisions

In 1968, the Commission laid down that as far as information exchange behaviour is concerned, it is difficult to distinguish between information that has no effect on competition and information that has an anti-competitive effect, but this difficulty cannot imply that Article 101 TFEU is not applicable. In fact, information exchange, especially in an oligopolistic market, is a way of

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18 See Clarke (1983) and Shapiro (1986). In this second paper, the author considers the oligopolists’ gain in sharing private information about their costs and the welfare effects connected with exchange of information, concluding that the exchange of costs data increases expected profit and welfare, but reduces expected consumer surplus.
disclosing to competitors the conduct that the firms themselves have decided to adopt on the market.\textsuperscript{19}

Ten years later, in 1978, the Commission clarified its approach towards information exchange.\textsuperscript{20} First, the definition of anti-competitive has to be made on a case-by-case basis, looking at the features of each agreement. Second, the configuration of the market as an oligopoly plays a crucial role because, in this kind of market, information exchange increases transparency and reduces competition. Third, the nature of the data is important. Information exchange of statistical data, such as information on the production and demand in an industry, is not relevant. The exchange has to concern the individual company’s data, such as information on prices, sales conditions, sales and output.

The application of EU competition policy to the insurance sector started at the end of the 1980s when the European Commission began seriously confronting anti-competitive arrangements between insurance undertakings. So far the Commission has mainly had to deal with agreements between insurers. It has therefore mainly to apply Article 101(1) TFEU, which prohibits agreements between undertakings restricting competition in a substantial part of the common market (Esteva, 1997). Any agreements between insurers on commercial premiums belong in the category of price-fixing agreements, which are always contrary to Article 101(1) TFEU and cannot be exempted.\textsuperscript{21}

The Commission has also recognized that certain characteristics of the insurance sector require a degree of cooperation between insurers. Article 101(3) TFEU grants exemptions to agreements that would otherwise have been prohibited, when they improve the economic conditions of a particular sector and provide benefits to consumers. Most of the Commission’s work in relation to the application of competition rules to the insurance sector has been devoted to the definition of the types of agreements that could benefit from this exemption.

In 1992 the Commission adopted a block exemption regulation in the insurance field, Commission Regulation (EEC) no. 3932/92 of 21 December 1992

\textsuperscript{19} Notice on Co-operation between Enterprises concerning agreements, decisions and concerted practices in the field of co-operation between enterprises, OJ C75 of 2 July 1968.

\textsuperscript{20} Seventh Report on Competition Policy, Brussels-Luxembourg, April 1978, points 5 to 8.

\textsuperscript{21} In 1984 the Commission condemned a recommendation from the German Association of Property Insurers to its members to increase their commercial premiums by a fixed percentage (Decision of 5 December 1984, Verband der Sachversicherer, OJ L35/21). The Court of Justice upheld the Commission’s decision (Judgment of 27 January 1987, 45/85).
on the application of Article 101(3) TFEU to certain categories of agreements, decisions and concerted practices in the insurance sector. This Commission Regulation exempts certain agreements within the insurance industry from cartel prohibition on the basis of some peculiarities of the insurance industry.\footnote{22}

Concerning information exchange on common risk premium tariffs, the Commission takes into account that to determine its premium, an insurer needs to know statistical data concerning the frequency and the volume of claims made in the past. Often insurers are not in a position to collect a sufficient amount of reliable data on the basis of their own business alone and agree with other insurers to exchange data in order to obtain reliable statistics.

Regulation 3932/92, in its Title II, deals with this type of agreement. It first exempts agreements for the common calculation of net premiums (premiums which only take past experience into account). These agreements should be limited to an exchange of actual statistical information on categories of identical or comparable risks, such as mortality tables or tables showing the frequency of illness or accidents. Title II also exempts “the common carrying-out of studies of the probable impact of general circumstances external to the insurers on the frequency or scale of claims”. This adjusted pure premium is normally referred to as a risk premium. It should be noted that any cooperation on the calculation of premiums going further than determining the risk premium (e.g. any exchange of information on administrative or commercial costs) could not be exempted.

\footnote{22} In particular, the exemption concerns agreements, decisions and concerted practices which relate to:

(a) the calculation of the average cost of risk cover (pure premiums) or the establishment and distribution of mortality tables, and tables showing the frequency of illness, accident and invalidity, in connection with insurance involving an element of capitalization – such tables being based on the assembly of data, spread over a number of risk-years chosen as an observation period, which relate to identical or comparable risks in sufficient number to constitute a base which can be handled statistically and which will yield figures on (inter alia):

\begin{itemize}
  \item the number of claims during the said period,
  \item the number of individual risks insured in each risk-year of the chosen observation period,
  \item the total amounts paid or payable in respect of claims arising during the said period,
  \item the total amount of capital insured for each risk-year during the chosen observation period;
\end{itemize}

(b) the carrying-out of studies on the probable impact of general circumstances external to the undertakings involved, on the frequency or scale of claims, or the profitability of different types of investment, and the distribution of their results.

(Article 2)
In any event, the exchange of data in order to elaborate common statistics will only be exempted if one additional condition is fulfilled: insurers exchanging data should not be obliged to use the statistics obtained for the calculation of their premiums. In relation to this condition, common statistics should always indicate that they are purely illustrative.

In conclusion, the Commission Regulation made it clear that an exchange of data that is more detailed than is necessary for the calculation of net premiums would not be allowed. In addition, any exchange of information aggregated in such a way that it becomes meaningless from a statistical point of view and attempts only to harmonize prices between insurers, would also not be covered by the exemption provided by Regulation 3932/92.

After the analysis of information exchange economic advantage in relation to the asymmetric information issue that characterizes the insurance market, some considerations can be made specifically in relation to the EC Commission block exemption.

Particularly, as set out in Faure and Van den Bergh (1995, p. 67):

1. Cooperation between insurance companies would be necessary to make premium calculation possible (premium calculation argument).
2. Since insurance risks tend to become larger, pooling of risks and reinsurance would become indispensable; this tendency would preclude the applicability of competition law (reinsurance argument).
3. Due to the lack of market transparency, consumers would be unable to compare different insurance policies; these information problems would require regulation instead of enforcement of competition rules (transparency argument).
4. Since the provision of insurance coverage is not dependent upon production costs, insurers could extend their capacity without limits; this would cause a tendency towards ruinous price competition in the insurance market (capacity argument).
5. Competition may lead to bankruptcies, which would make it impossible for the insurance companies to fulfil their obligations vis-à-vis the insured parties; the latter have to be protected against this insolvency risk.

In the following section we will analyse this last issue of the protection of insured parties, as consumers, particularly through rate control.
4. REGULATION TO ENSURE CONSUMER PROTECTION AND RATE CONTROL

The primary motivation for market conduct regulation in insurance markets is the idea that consumers are imperfectly informed about products, prices and seller quality, and that there are significant impediments to their becoming informed. In fact, insured individuals have great difficulties in understanding complicated insurance contracts and lack the ability to assess the adequacy and proportionality of the premium to their risk. This is also called the “lack of transparency issue” and results from the fact that insurance products may be defined as *experience goods* or *credence goods*, since the insured can evaluate their quality only after concluding the contract.

The quality characteristics of an insurance policy are difficult to ascertain due to the complexity of the contract, the contingent nature of many of the services provided (e.g. claims handling and payments) and the fact that services may be provided over time (e.g. investments). As a result, product quality is difficult to ascertain prior to purchase and may remain so even after significant experience with the product. Price comparisons can also be difficult, since prices vary with the buyer’s risk characteristics. Finally, product heterogeneity across sellers may be manifested in details regarding insured events or coverage for specific events, making comparisons of the price and quality dimensions of products even more difficult. These features of insurance contracts increase the potential for seller misrepresentation or consumer misunderstanding in insurance transactions.

The regulation for competition purposes helps to solve this kind of problem first because market forces work to protect consumers and then because firms engaged in competition have strong incentives to maintain faith in their products and thus to provide high quality products at appropriate prices. This is especially true in markets for financial products, in which consumer confidence and seller reputation are central to the existence of the market.

The importance of consumer confidence and seller reputation stimulates industry self-regulation. At the same time government regulation can be either a substitute for or a complement to self-regulation, providing stronger enforcement powers than those available to self-regulatory bodies.

On one hand, *ex ante* regulation focuses on proscription and prevention, includes prior approval of products and forms, restrictions on specific behaviours, and mandating disclosure of certain types of information. On the other hand, the *ex post* regulation approach focuses on monitoring and remedies, including market conduct examinations, compliance examinations and tracking and investigation of consumer complaints. *Ex post* approaches to regulation may be complements to *ex ante* approaches when they serve to enforce
compliance with rules, but may be substitutes for ex ante approaches when they serve to identify and remedy problems.\textsuperscript{23}

To ensure consumer protection, national regulators use a combination of ex ante and ex post approaches. Compared with other financial markets, in ex ante regulation, insurance regulators rely more heavily on prior approval and behavioural restrictions, whereas disclosure requirements tend to be the norm in the provision of other financial services. With regard to ex post market conduct insurance regulation, regulators tend to engage in fewer and less intensive examinations, but handle far more consumer complaints than bank regulators (Tennyson, 2008).

On the other hand, as far as “private regulation” is concerned, the insurance market is usually characterized by strong efforts by insurance company associations to build a “quasi-mandatory” system of regulation among affiliated insurance companies. Moreover, consumer protection is among the declared objectives of the insurance regulatory authorities, given the idea that the insured are relatively weak compared to the insurers due to the informational problems we have already analysed.

Another issue connected with regulatory intervention is the fact that insurance companies may charge exaggerated prices (especially if competition is limited), abusing consumers’ relative disadvantage. The fact that consumers lack the information and expertise to ensure that the prices they pay are reasonable are among the arguments for insurance rate regulation.

A fundamental requirement of insurance pricing in a competitive market is that prices reflect the expected value of a consumer’s insured losses. For example, consumers at greater accident risk face higher insurance premiums to reflect the greater risk they impose on the insurance system. Insurance pricing is not perfectly correlated with risk, however, as insurers must set premiums based on observable characteristics that they find to be correlated with loss experience. Insurers may also adjust premiums over time based on observed loss experience, since this provides a signal of the expected value of future losses. Because premium variation is more readily visible than risk variation, high prices or large price differences across consumers may lead to the perception that insurance premiums are unfairly determined or unfairly discriminatory. As a result, insurance rate regulation, as a form of price regulation, often arises in response to a desire to assure affordable insurance coverage for all consumers.

In the case of mandatory insurance, such as third party automobile insurance, rate regulation may be intended as a tool for pursuing the socially

\textsuperscript{23} On the differences between ex ante and ex post regulatory approaches, see Boyer and Porrini (2002); Porrini (2005).
desired outcome of universal coverage by reducing price levels for high-risk purchasers.\textsuperscript{24}

While the direct and intended effect of these rating restrictions is to limit premium variation across consumers, the indirect effect is to impose premium cross-subsidies by low-risk consumers of high-risk consumers. From a theoretical perspective, there are circumstances in which premium cross-subsidies from low to high-risk consumers could improve the well-being of all insurance consumers. If high-risk consumers remain uninsured while participating in insurable activities and their lack of insurance imposes costs on other market participants, then it is possible for all to be better off under a pricing system that provides premium subsidies for high-risk parties.\textsuperscript{25} These gains arise if the subsidies cause high-risk consumers to purchase insurance when they otherwise would not, thus reducing the external costs borne by others. From this perspective, cross-subsidies that increase the rate of insurance among high-risk consumers may benefit society so long as insurance purchase by low-risk consumers is not greatly decreased in the process.\textsuperscript{26}

While premium cross-subsidies are quite simple in the case of mandatory insurance, a number of difficulties arise in attempting to enforce price cross-subsidies if insurance purchase is voluntary, because the higher prices faced by low-risk individuals who are forced to subsidize high-risk individuals may in fact cause them to forego insurance or to reduce their purchases.

The discussion of rate regulation shows that there are two potentially distinct effects of price-reducing rate regulation: reducing average rates for all consumers, known as rate suppression; or reducing rates for some consumers (usually high-risk) compared to others (usually low-risk), known as rate compression (Harrington, 1992; Tennyson, 2007).

In conclusion, the objectives of insurance rate regulation can generally be characterized as a desire to achieve universal insurance coverage and to assure reasonable rates for all consumers.\textsuperscript{27} The case against rate regulation arises not from disagreement with these objectives, but from the inherent difficulties of achieving them through price regulation in a competitive marketplace.

\textsuperscript{24} This can be targeted through regulatory limits on rate changes, restrictions on relative rates or on the use of certain rating factors, restrictions on rates in the residual market, and other restrictions on pricing and underwriting.

\textsuperscript{25} For a demonstration through models, see Keeton and Kwerel (1984) and Smith and Wright (1992).

\textsuperscript{26} For theoretical treatment of these issues, see Rothschild and Stiglitz (1976); Riley (1979); Wilson (1977); Bond and Crocker (1991).

\textsuperscript{27} This is true not only for third party automobile insurance, but also for the case of mandatory insurance for natural disasters; see Van den Bergh and Faure (2006); Porrini and Schwarze (2011).
Regulations cannot eradicate the underlying incentive forces that govern decisions in markets, and regulations that ignore these forces lead to unintended consequences that worsen market outcomes.

5. REGULATION TO ENSURE SOLVENCY

Solvency regulation dates back to the 19th century, when a rash of insurance insolvencies in the US and Europe led to the establishment of state regulatory authorities. Countries tried to limit the kinds of investments insurance organizations were permitted to make, and mandated the employment of actuaries to calculate rates and reserves, the filing of reports with state agencies, and minimum capital reserves.

The justification for this form of insurance regulation is again the existence of informational problems because insurance consumers are poorly equipped to evaluate the soundness of insurance companies and to evaluate the degree to which insurance companies could fulfil their promises.

Given the role of the insurance sector, especially for the American International Group (AIG) intervention case in the recent financial crisis (Harrington, 2009), and the involvement of insurance in the systemic risk issue (Fuure and Hartlief, 2003), solvency has become the primary focus of insurance regulation worldwide. Regulatory tools have expanded to include risk-based capital requirements; electronic auditing of accounts; and a wide variety of limits on the ways that companies can invest the funds held in reserve to pay claims.

Moreover, regulation can be used to steer capital towards preferred fields, given that insurance is an institution for storing and accumulating capital, competing with banking and securities firms. Although banking, insurance and securities have traditionally been subject to different regulatory regimes, there is a contemporary “convergence” in the financial services marketplace that places great strain on the existing regulatory institutions (Jackson, 1999).

Another reason for insurance solvency regulation lies in a fundamental characteristic of the insurance market: the need for high financial stability, due to the “long-tail” nature of the insurance product and the fact that it is trust-based. A long-tail character means that at the stage of purchasing the insur-

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28 “For example, French insurance companies are required to invest some of their funds in French real estate, with the interesting result that French insurance companies have become a major force in the French wine industry. On a larger scale, prohibitions on foreign investment in insurance in countries such as India, China, Brazil, and Argentina were long justified as a way to steer capital to indigenous insurance institutions (typically government owned or authorized monopolies), which would invest the capital locally”. See Baker (2002, p. 11).
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...ance, the consumer receives a mere promise that is granted by solvency regulatory tools (Abraham, 2005; Meier, 1988).

Regulation for solvency is justified by the enormous amounts of funds and investments in the hands of the insurance companies; as such, their failure would have an extreme impact on many policyholders and beneficiaries, mainly in life insurance, where there would be no possibility of finding an alternative to the loss of life-long savings (Ellis, 1990).

According to Macey and Miller (1993), three methods are applied by this kind of regulation.

First, technical reserve requirements and licensing conditions impose minimum capital requirements, limitations on corporate structure and ownership, and sometimes a ban on engagement in any business other than insurance and related investments. These requirements are designed to assure the financial stability of potential insurance companies and the sufficiency of their initial financial resources to cover underwriting liabilities. Such supervision makes the insurance regulatory authorities highly involved in shaping the market structure, since they exert great influence by approving insurance suppliers before they enter the market.

Second, for regulatory safety and soundness supervision, insurers’ assets should actually be larger than the underwriting liabilities by including “a margin of solvency”. This form of regulation relies on the regulators’ examination of annual financial statements made by the insurance companies; supervision of companies’ investments; intensive investigation and solvency improvement requirements.

The third instrument of solvency regulation is Guaranty Funds. In case of liquidation or insolvency, these funds are supposed to protect policyholders, beneficiaries and claimants to a greater degree than the protection granted to creditors by “normal” bankruptcy rules. The funds, often financed by the remaining companies in accordance with an assessment of their market share, cover the payment that should be made to a failing insurer’s policyholders.

At a worldwide level, although differences do exist, insurance regulators face similar problems. This fact, and the increasing tendency of insurance services to cross-border expansion, led to the establishment of an international organization, the International Association of Insurance Supervisors (IAIS) that was established in 1994, in order to enable information-sharing between insurance supervisors and regulators.

Soon after, broader needs were identified, and the organization objectives expanded accordingly. Today, the IAIS goals are as follows (OECD, 1998, p. 225):

(a) cooperate to ensure supervision in order to maintain efficient, safe, stable insurance markets for the benefit and protection of policyholders;
(b) to unite efforts to develop practical standards for supervision;
(c) to cooperate with other relevant entities, especially with the Basle Committee on Banking Supervision and the International Organization of Securities Commissions;
(d) to provide mutual assistance to safeguard integrity.

The IAIS developed several principles that ought to serve as a common base and guide for its 180 member jurisdictions.\textsuperscript{29} The Insurance Core Principles (ICP)\textsuperscript{30} were updated in 2000, and today they include principles that the members are supposed to apply in their supervision. The aim is to achieve consistent regulation and standard rules that would prevent opportunistic behaviours. These principles include supervisors being required to maintain stability in their regulated markets, to gain the needed power to review the insurers’ assets, reserves, internal control, and the power to “take remedial actions”.

The imposition of minimum capital requirements is probably the most widely implemented and discussed regulatory tool. IAIS provides some guidance as to the standards that should apply to the determination of regulatory capital requirements.

As discussed in Eling et al. (2007), a variety of regimes have been used around the world, including systems without specific levels of capital (e.g. New Zealand), static models that can be either risk-based (e.g. the US, Japan) or non-risk-based (e.g. the EU under Solvency I), dynamic cash-flow-based models (e.g. the Netherlands), and a combination of static factor and dynamic cash-flow-based models (e.g. the UK, Switzerland).\textsuperscript{31} However, it is not clear

\textsuperscript{29} www.iaisweb.org.
\textsuperscript{30} The Insurance Core Principles comprise essential principles that need to be in place for an insurance supervisory system to be effective. These principles set out the framework for insurance supervision, identify subject areas that should be addressed in legislation or regulation in each jurisdiction and provide a framework for the IAIS on which to develop more detailed international standards. See IAIS (2003).
\textsuperscript{31} We refer to the distinction between static, accounting-based models and dynamic, cash-flow-based models. In the former, the capital requirements are arrived at by applying a certain calculation methodology on a static, i.e. fixed at a given due date, accounting basis. The accounting basis stands for either certain balance sheet positions or underlying “risk” positions. In the latter, models rely on cash-flow projections, rather than fixed positions. Static, accounting-based models are further broken down into factor-based models and risk-factor-based models. Factor-based models are referred to as simple because they apply only a small number of factors to the static accounting positions in order to arrive at the capital requirements. As a result, these models would not be expected to be risk-based since the level of factor differentiation is much too reduced to reflect the risks of the insurance undertaking. Risk-factor-based models are the most prevalent in the industry. They apply fixed ratios to select account-
whether capital requirements actually improve the soundness of insurance firms.

The most common instrument of regulation for solvency consists of technical provisions that correspond to the amount required by the insurer to fulfill its insurance obligations and settle all commitments to policyholders and other beneficiaries arising over the lifetime of the portfolio. Technical provisions can be divided into those that cover claims from insurance events which have already taken place at the date of reporting and those that should cover losses from insurance events which will take place in the future. The 2008 IAIS guidance paper on the structure of regulatory capital requirements highlights the importance of technical provisions by stating that “These aspects of solvency assessment (namely technical provisions and capital) are intrinsically interrelated and cannot be considered in isolation in a solvency regime” (IAIS, 2008, p. 5). It is also suggested that capital requirements should be calibrated such that, in adversity, assets exceed technical provisions with a specified level of safety over a defined time horizon.

Most countries supplement the above requirements by regulating the portfolio choices of insurance firms. The main aim is to ensure that insurers invest and hold adequate and appropriate assets to cover capital requirements and technical provisions. In general, there are two types of portfolio regulation. The first is the “prudent person” rule, which is a qualitative requirement that obliges insurance firms to invest in assets as a “prudent person” would, given similar investment objectives. The second is the imposition of quantity restrictions which set a limit on the share of the portfolio that can be invested in specific assets. On the one hand, the main argument against quantitative portfolio regulations is that they can reduce diversification benefits and lead to suboptimal return and risk-taking. Restrictions may introduce difficulties in dealing with some of the underlying risk of life insurance business, such as interest risk on annuities and term policies (Dickinson, 1998). On the other hand, allowing firms to offer a wider portfolio of services may provide more incentives to increase risk (Das et al., 2003; Lorent, 2008). Furthermore, compliance with limits on portfolio is more readily verified and monitored by supervisors than by “prudent person” rules. Finally, OECD (2000) highlights that no matter whether the investment policy is based on quantitative restrictions or “prudent person” rules, it is important to follow some basic principles, such as diversification and dispersion, maturity matching, and currency matching.

However, it may be difficult to induce a prudent behaviour rule without sound internal controls and corporate governance systems. One reason is that
due to agency problems, managerial incentives play a role in determining capital and risk in insurance markets (Cummins and Sommer, 1996), with excessive risk appetite and lack of managerial integrity highlighted as one of the main problems of companies that either breach their solvency requirements or are close to doing so (Ashby et al., 2003).

IAIS (2007) also describes sound governance as a prerequisite for an efficient solvency regime suggesting that the supervisory regime should require insurers to have and maintain corporate governance policies, practices and structures and undertake sound risk management in relation to all aspects of their business. Under the official supervision theory, sound governance of firms and incentives for prudent behaviour could also be induced through governmental supervisory authorities that have both the expertise and the incentives to overcome information and transaction costs (Beck et al., 2006).

Consistent with this view, the recommendations of the European Economic and Social Commission and the IAIS imply that adequate supervisory power is a precondition of solvency assessment. In particular, IAIS discusses supervisory power in several documents suggesting that supervisors must have adequate powers to: (i) require an insurer to assess and manage the risk to which it is exposed, (ii) set regulatory financial requirements for individual insurers to protect policyholders’ interests, (iii) require that, if necessary, an insurer holds additional capital or takes action to reduce its risks so that the assets it holds are sufficient and appropriate, (iv) enforce corporate governance policies, practices and structures, (v) take remedial action in a timely manner, such as restricting business activities, stopping the writing of new business, revoking the licence of an insurer, removing directors and managers, etc. (IAIS, 2003 and 2007).

Regulation regarding solvency is the primary role of the supervision authorities and will be very much a part of the future changes in the European supervision system that will be analysed in the following section.

6. INSURANCE SUPERVISION: PAST, PRESENT AND FUTURE

As we have seen, the EU goal of the creation of a single European insurance market calls for Union-level insurance regulation. But difficulties arise from the contradictions between two substantial regulatory schemes. Some states, including Germany and France, already had a tradition of intensive state supervision, entitled “the Alpine regulation”, while the United Kingdom and The Netherlands had “the maritime insurance”: a well-established tradition of a self-regulated insurance market, almost completely free of state intervention.

The EU shift towards a single insurance market based upon the institutional
structure of the authorities implies that while there is an existing insurance regulation policy, as well as solid competition policy, there is great variation amongst the authorities. Competition policy is constantly applied by the Commission and the Courts, but there is no parallel insurance regulator at the European level; no authority was established as a counter-balance to the Commission. Regulation remained a prerogative of the Member States. At the same time, the directives weaken the national regulators by substantially narrowing their powers.

The importance of this lack of a European-level regulator is even greater since the directives are intended to result in insurance services being provided on an inter-state scale. There has long been debate as to whether states, based only on minimal harmonization, can adequately regulate services that are provided at the European level. Recently, there has been a tendency to unite economic regulations under one supervisory authority (European Commission, 2009). This development potentially corrects the above-mentioned imbalance but what remains to be solved is the problem of the separation between the different authorities regulating different insurance activities (traditional insurance products, pension funds, financial products, bank-assurance activities).

The authorities’ scheme has a great impact on the functionality and efficiency of insurance regulation policy. Traditionally, two main structures are applied: first, there is one supervising authority; second, the regulatory tasks can be split among multiple authorities.

Several economic arguments support the single authority model. First, it allows the supervisor a complete overview of the supervised industry. Second, a single entity operates consistently. Consistency is crucial for setting market guidelines; it enables insurers to foresee the consequences of potential cooperation and to design intra-market relations accordingly. Under multiple supervision, there is inherent potential for conflicting orders that cannot be complied with simultaneously. Third, it is more transparent and therefore more subject to inspection both by the public and by other authorities. Arguably, while regulatory bias is unavoidable, having fewer official positions will mean fewer irrelevant interventions, and less bias and corruption. Lastly, a unified system saves substantial administrative costs by preventing overlaps and duplication of resources invested. Compared with multiple supervision, a single authority would gain an economy of scale in research expenses and human resources.

32 The advantages of a single authority model have been studied particularly with reference to the financial market. See Masciandaro and Porta (2004).
The conflict of interests phenomena, the pressure of interest groups and regulatory capture, are exaggerated when power is brought together under one authority. This concentration of powers under one authority may lead to a greater distortion, compared with a multiple structure. The conflict of interests results not only from pressure by interest groups. It is essential since each authority is goal oriented. The goals themselves are contradictory: sector-specific regulators might try to increase insurers’ market power, while competition authorities aim to reduce it. Unification of powers will blunt these orientations, thereby possibly limiting the ability to accomplish regulation tasks.

Insurance regulation requires specialization. Insurance supervision is a complicated task that includes examination of complicated solvency data, assessment of intra-market cooperation needs, and evaluation of the adequacy of insurers’ practices. It is unlikely that a single authority, controlling all aspects of the entire market, would have these qualities.

The multiple authorities serve as “checks and balances” mechanisms for each other. Whether due to differences in goals or practices, multiple authorities pull in different directions, thus maintaining a market balance. Each authority examines, and sometimes challenges, the other authority’s decisions by raising public discussion, bringing the debate to higher level authorities (such as the ministry or legislature) or settling the conflict in court.

To conclude, the way the insurance industry is supervised is likely to change. The report published on 25 February 2009, compiled by former governor of the Banque de France, Jacques de Larosière and his "high level expert group", as a response to the financial market crisis, tried to fill significant gaps in the framework for regulating and supervising the international financial system. It highlights the importance of macroeconomic factors and the need for supervisors to keep an eye on them; the emphasis is on better collaboration between supervisors and a shift of power away from the national level to the regional.

However, de Larosière’s report marks a radical shift away from the status quo, proposing that the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) becomes the European authority for insurance market supervision with significantly expanded powers.

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33 On the other hand, the regulator may be captured by the industry or other pressure groups (Becker, 1983; Shleifer and Vishny, 1998). Therefore, regulators may respond to political pressure rather than the economic needs of the insurance industry or they may use their position to gain favour with the industry.

34 CEIOPS was established under the terms of the European Commission Decision 2004/6/EC of 5 November 2003, currently repealed and replaced by Decision 2009/79/EC, and is composed of high level representatives from the insurance and
The big question is whether individual countries will countenance surrendering some of their supervisory sovereignty, given the political sensitivity about giving a European body responsibility for a sector that many countries see as critical in terms of the price and availability of cover for local firms, and which is also a major employer.

The European Commission’s communication of 4 March 2009, while endorsing the thrust of the de Larosière report in this regard, accelerates the timetable with the aim of getting the European System of Financial Supervision to replace the three existing committees for banking, insurance and securities regulation with three far more powerful authorities, and dramatically strengthening their mandates.\textsuperscript{35}

The near collapse of AIG, although a US institution, has strengthened the hand of European reformers. In the future, national regulators will lose some of their primacy and a greater emphasis will be placed on consistency of regulation and supervision, and on cooperation between national bodies.

7. GENERAL CONCLUSION

Because the insurance business has become highly important to society’s development and because of the importance of the insurance industry, the legislators heavily regulate this sector.

The first reason for regulation is that the insurance market is characterized by fundamental problems of asymmetric information. Moral hazard and adverse selection play a central role in the insurance market and to correct the consequent severe market failures risk classification can be implemented.

Given the insurance companies’ difficulties in obtaining data on the insured’s characteristics and behaviours, information exchange can be seen as a useful instrument that allows insurance companies to improve their own information about their contractual counterparts. Possible benefits can be derived from the insurance market, but exchange of information behaviour may be considered an anti-competitive practice because of its mere potentiality for giving rise to a collusive equilibrium. Information exchange behaviour can be included in the facilitating practices, defined as practices that try to enhance the factors that support cooperative outcomes.

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\textsuperscript{35} This is the idea of a supernational insurance supervision authority: See Liedtke and Monkiewicz (2011).
Regulation to ensure consumer protection and the instrument of rate control was analysed in the fourth section. On the one hand, self-regulation and *ex ante* regulation that focus on proscription and prevention include prior approval of products and forms, restrictions on specific behaviours, and mandating disclosure of certain types of information. On the other hand, the *ex post* regulation approach focuses on monitoring and remedies, including market conduct examinations, compliance examinations and tracking and investigation of consumer complaints.

Another issue connected with regulatory intervention is the fact that insurance companies may charge exaggerated prices (especially if competition is limited), abusing consumers’ relative informational disadvantage. The fact that consumers lack the information and expertise to ensure that the premiums charged are reasonable is the main argument for insurance rate regulation.

The solvency issue and the regulatory rules imposed at EU and international level were considered in the fifth section. Regulation for solvency is justified by the enormous amounts of funds and investments in the hands of insurance companies; as such, their failure would have an extreme impact on many policyholders and beneficiaries, mainly in life insurance, where there would be no possibility of finding an alternative to loss of lifelong savings.

Finally, the question of insurance market supervision was discussed, together with an analysis of the recent proposal for a single European supervision authority.

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