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Martin Eling, Ph.D.

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Insurance Regulation in Europe: An Analysis of Effectiveness and Efficiency

Martin Eling, Ph.D

IMPORTANCE As illustrated by the financial crisis of 2008, the financial system is becoming more and more complex. The political response to this is to enact an increasing number of complex regulations. Several industry studies now report that regulation is viewed as the greatest risk to the insurance industry. Given that the main goal of regulation is to provide security (i.e., protect policyholders and ensure safe and sound markets), there is obviously a gap between the goals of regulation and the industry's perception of the impact of regulations. The complexity of regulation also received a lot of attention in recent academic literature, both for both banking and insurance.

AIM Looking at the European marketplace, I analyze the current development of insurance regulation with respect to its effectiveness and efficiency. First, I illustrate the increasing amount, cost, and complexity of insurance regulation. Then, I analyze some unintended consequences of the cost and complexity of regulation and discuss how effective and efficient insurance regulation might look. I finish by discussing three suggestions for policymakers: reduce complexity, increase transparency, and conduct systematic cost-benefit analyses before and after the implementation of regulation.

FINDINGS The examples and discussions presented here illustrate that some of the current developments of regulation are neither very effective nor very efficient. Potential negative consequences of too much and too complex regulation include economically ineffective decisions and reduced product availability. Moreover, regulatory arbitrage is a significant problem. In general, the complexity of regulations makes insurance regulation less comprehensible, less transparent, and thus less effective.

CONCLUSION & RELEVANCE The main recommendation is to reduce complexity by simplifying and harmonizing models (e.g., the European Solvency II and International Financial Reporting Standards (IFRS)). Moreover, I recommend increasing transparency by making the solvency ratios and key information documents regarding products publicly available. Finally, I suggest that a systematic cost-benefit analysis should be done before and after the implementation of new regulation. Although the article focuses on the situation in Europe and on the insurance industry, the results might be relevant for other jurisdictions and other fields of financial services such as banking.

Insurance Regulation in Europe: An Analysis of Effectiveness and Efficiency

Martin Eling, Ph.D.*

Abstract

Recent years have witnessed a great deal of controversy over the amount, intensity and complexity of insurance regulation. The aim of this article is to analyze the current development of insurance regulation in Europe with respect to its effectiveness and efficiency. I first illustrate the increasing amount, cost and complexity of insurance regulation. Then I analyze some unintended consequences of the cost and complexity of regulation and discuss how effective and efficient insurance regulation might look. I finish by discussing three suggestions for policymakers: 1) reduce complexity; 2) increase transparency; and 3) conduct systematic cost-benefit analyses before and after the implementation of regulation.

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1. Introduction

The financial system has become increasingly complex since the early 1990s, and the same is true of financial regulation. The famous Glass-Steagall Act, which regulated the separation of commercial from investment banking in the U.S. from 1933 to 1999, comprises only 37 pages. In contrast, the federal Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) of 2010, intended to ensure financial stability, along with all its supplementary rules, comprises more than 8,000 pages. The situation in Europe is similar: As of 2012, the response to the financial crisis, for example, comprises more than 2,000 pages of new regulations (Haldane, 2012), many of which cover additional regulations on capital and financial stability.[1]

This environment has given rise to a great deal of controversy over the amount, intensity and complexity of insurance regulation. For example, several industry studies report that regulation is viewed as the greatest risk to the insurance industry (PwC, 2017, 2019; Black Rock, 2013). Certainly, it should be kept in mind that these studies asked this question from industry representatives. But given that the main goal of regulation is to provide security (i.e., protect policyholders and ensure safe and sound markets), there is obviously a gap between the goals of regulation and the industry's perception of the impact of regulations. The complexity of regulation also received a lot of attention in recent academic literature, for both banking and insurance (e.g., Kojen and Jogo, 2016; Kisin and Manela, 2016; Kojen et al., 2017; Gropp et al., 2019).

Is the increasing amount and complexity of regulation the most appropriate response to the financial world's increasing complexity? Some studies indicate that the answer might be no. For example, Pottier and Sommer (2002) demonstrate that the equity-to-assets ratio is an equally good or even better indicator of financial distress than the complex U.S. risk-based-capital (RBC) standards. Given these results, one might wonder whether a simple regulation might be a decent alternative to complex regulation. However, it is too facile to say that simple regulation is better regulation; simple regulation is not without its own problems. For example, simple regulation cannot account for all the myriad details of a real-world situation and might result in inefficient incentives; see, e.g., the discussion in Basel III regarding the use of leverage ratio as an alternative risk measure (Auboin and Blengini, 2019; Ojo, 2015).

In light of this, this article discusses the effectiveness and efficiency of insurance regulation. I first illustrate the increasing amount, cost and complexity of

1. Examples are the implementation of the European Systemic Risk Board (2010) and the three European Supervisory Authorities (2010) or the designation of global systemically important financial institutions (2011), amongst many others. More recent examples are the implementation of the European Stability Mechanism (2013), the Market Infrastructure Regulation (2014), the Basel III Capital Requirements Directive (2014), the Banking Union (2014), the Single Resolution Mechanism (2014), the framework for securitization (2017), or the market regulation for financial instruments (MIFID I [2014], MIFID II [2018]).

insurance regulation (Section 2). Next, I analyze some unintended consequences that arise due to the cost and complexity of regulation (Section 3), and then I discuss how effective and efficient regulation might look (Section 4). Based on this, I make three suggestions for policymakers (Section 5): 1) reduce complexity; 2) increase transparency; and 3) conduct systematic cost and benefit analysis before and after the implementation of insurance regulation. I conclude in Section 6.

Although the increasing amount and complexity of regulation is often cited as the most important risk to the insurance sector (e.g., PwC, 2017, 2019; Black Rock, 2013), there is very little literature on the effectiveness and efficiency of insurance regulation, or on financial regulation in general. This is most likely due to the considerable difficulty of measuring the costs and benefits of regulation.[2] Only a few researchers, using survey methods, have attempted to assess regulatory costs and benefits for the financial services sector. For example, Franks, Schaefer and Staunton (1997) empirically analyze the direct and indirect costs of financial regulation in the United Kingdom (U.K.) and compare the direct costs with those from the U.S. and France. Ernst & Young (2011) conduct a cost-benefit analysis of Solvency II in the U.K. by evaluating the impact of Solvency II on the required capital of insurance companies; they also estimated the implementation and compliance costs of Solvency II. Eling and Pankoke (2016) empirically analyze the costs and benefits of financial regulation based on a survey of 76 insurers from Austria, Germany and Switzerland and show, among other things, that the proportionality principle does not work.

Other researchers have assessed the costs and benefits of regulation using micro-economic equilibrium models and derive welfare implications from new regulations. For example, Hoy (2006) considers the impact of restricting risk classification factors; Dong, Gründl and Schlütter (2015) consider the effects of guarantee funds; and Sass and Seifried (2012) consider the consequences of unisex tariffs. In addition, Lorson, Schmeiser and Wagner (2012) evaluate policyholder willingness to pay for stricter regulation and compare it with the costs of Solvency II estimated by previous studies.

This article makes no novel theoretical or empirical contributions, but instead collects existing results on the effectiveness and efficiency of regulation[3] in order to draw some policy implications for the future development of insurance regulation. The paper is targeted at policymakers and state insurance regulators, but also at academics interested in insurance regulation. It aims to stimulate the dialogue between academia and the industry on regulation and its implications for insurance management. The article should not be interpreted as an argument for less intensive

2. See Posner and Weyl (2013), who conceptually outline requirements for measuring the benefits and costs of financial regulation.

3. Among these studies, two important are Haldane (2012) and Eling and Kilgus (2014). Haldane (2012) analyzes the effectiveness of banking regulation and sets forth a number of reasons why simpler regulation is better than complex regulation. Eling and Kilgus (2014) discuss the effectiveness and efficiency of insurance regulation with a focus on Switzerland. I build on and extend Eling and Kilgus (2014) with a detailed analysis of the effectiveness and efficiency of insurance regulation in general, not restricted to Switzerland.

regulation; all academics agree that insurance companies should be regulated in order to protect policyholders and to create a safe and sound industry. But once we accept that insurance companies should be regulated, the question is: What is the most effective and efficient design of insurance regulation?

The examples and discussions presented here illustrate that some of the current developments of regulation are neither effective nor efficient. The main recommendation of the article is to reduce complexity by simplifying and harmonizing models (e.g., the European Solvency II and International Financial Reporting Standards [IFRS]). Moreover, I recommend increasing transparency by making the solvency ratios and key information documents regarding products publicly available. Finally, I suggest that a systematic cost-benefit analysis should be done before and after the implementation of new regulation. Although the article focuses on the situation in Europe and on the insurance industry, the results might be relevant for other jurisdictions and other fields of financial services, such as banking.

2. Analysis of the Current Situation

2.1 Increasing Complexity of Regulation

To illustrate the complexity of regulation, I take as an example a mid-size Swiss insurance company. The company is active in five European countries and engages in both life and non-life business. It must fulfill the statutory local generally accepted accounting principles (GAAP) in the five countries and many other specific, local accounting requirements (e.g., reserving requirements). Moreover, it has to pass the Swiss Solvency Test (SST). For the business in the European Union (EU), the company is still using the Solvency I rules as well as the new Solvency II regime, which was implemented in 2016 (see Eling, Schmeiser and Schmit, 2007; Heep-Altiner, Mullins and Rohlfs, 2018). Like many other insurers of comparable size, the company has a rating, in this case from Standard & Poor's (S&P).

The annual report is published according to the IFRS. The accounting standard for insurance liabilities (IFRS 4) is still under development: At the moment, the company uses Phase I with a market-oriented valuation of the assets, but it employs a more prudential approach for the liabilities (based on the local accounting standards). In preparation of Phase II, the company also performs a market-oriented valuation of liabilities following the IFRS 17 rules, which will be implemented from 2022 onwards (see Windsor, Yong and Bell, 2020). Moreover, it has to consider the new IFRS 9 (effective from 2018 onwards), which will again fundamentally change the valuation of the assets. Finally, the company also calculates a market-consistent embedded value (MCEV) report for its life business.

As shown in Table 1, managers of insurance companies have eight different views of their company's financial situation, already a good illustration of the complexity of financial management. But let us now consider how a decline in the

interest rate affects the value of assets, the value of reserves and the value of equity (i.e., assets – reserves). The message from Table 1 is that a decline in interest rates might indicate an increase, a decrease or no impact on the company's equity situation. Basically, any scenario could occur. Each of the eight models has its own specific purpose (e.g., true and fair view, prudence principle), and each serves different stakeholders (e.g., shareholders, regulators), but it is worth asking which of the eight models is the most important for insurance managers. Some people might choose IFRS because it deals with profit for the shareholders and, thus, the owners. Others might say that the regulatory model is the most important since the regulator will take over the company if this model's requirements are not met. Still others might say that, ultimately, the statutory GAAP should be chosen because when the statutory equity is negative, the company is bankrupt. Thus, the answer to this question is not clear-cut; an insurance company's management might experience the same dilemma when confronted with all these models.

Table 1: Impact of Lower Interest Rates on Assets, Reserves and Equity

Model	Assets	Reserves	Equity
Statutory GAAP	0 or ↑	0 or ↑	0 or ↑
SST	↑	↑↑	↓
Solvency I	0 or ↑	0	0 or ↑
Solvency II	↑	↑↑	↓
S&P Capital Adequacy	↑	↑	0 or ↓
IFRS 4 (Phase I)	↑	0	↑
IFRS 4 (Phase II) / IFRS 17	↑	↑↑	↓
MCEV	↑	↑↑	↓

Note: ↑ (0, ↓) means that for the eight models considered in the first column, the market value of assets, reserves, or equity increases (is unaffected, decreases) if interest rates decrease.

2.2 Increasing Amount of Regulation

Table 2 provides an overview of the currently applicable laws, regulations and ordinances for insurance companies in Germany, Austria and Switzerland. Although no conclusions as to the complexity of regulation can be drawn from this list, it does quite clearly illustrate the large number of rules that must be followed.[4]

Table 2 reveals regulation is already quite extensive, but regulation is becoming even more extensive over time. Recent regulatory projects within the EU can be categorized in five categories: 1) financial stability; 2) supervision; 3) taxes; 4) consumer protection; and 5) other regulation.

Additionally, several major trends in insurance regulation can be identified. First is the adoption of international and European standards; Solvency II, IFRS or

4. Table 2 is adapted from Eling and Kilgus (2014) and was updated to present the laws and regulations currently in force in order to give an impression on the amount of regulation. Although we attempt to gather a complete list of all relevant laws and regulations, there is no guarantee that Table 2 is comprehensive. Appendix A provides further details, including all abbreviations listed in Table 2.

the global insurance capital standard (ICS) are prominent examples. Although, theoretically, adoption of international and European standards should decrease the complexity of regulations, this is not always the case in practice. National regulators sometimes retain old local rules when new international regulations are implemented. Thus, they are an extra burden. Moreover, the implementation of international standards can be different across countries, meaning that true harmonization is not achieved. Second is a shift toward intersectoral regulation; the designation of systemically important financial institutions (SIFI) or Markets in Financial Instruments Directive (MiFID) I and MiFID II are examples, where banking and insurance are considered under the umbrella of one regulatory framework. And third is a wave of new regulation in the consumer protection field, such as the Insurance Distribution Directive (IDD) or the regulation on packaged retail investment products (PRIPS), most of which aims to increase transparency—that is, provide better customer information.

Table 2: Laws and Regulations in Germany, Austria and Switzerland

	Germany	Austria	Switzerland
Insurance Regulations			
Risk Management / Aktuarielle Anforderungen	AnlV, AktuarV, DeckRV, Directive 2002/87/EC / R 4/2018, FinRVV, KAGB, KVAV, MaRisk BA / R 9/2017, MindZV / R 9/2020, R 12/2008, VAG	VU-AktBV, Directive 2002/87/EC, kV-EEV, VU-GBV, GPV, HZV, R FEA 2004, R GR 2006, R IMEG 2003, KAV, PZV-ZRV, R ÜL 2005, SWRV, VAG, LV-VMGV	AVO, RS 2017/04, RS 2017/02, RS 2013/5, VAG
Corporate Governance / Internal Control Systems	DCGK, TransPuG, VAG	BörseG, R CRB 2017 /2018, SCC, VAG	RS 2008/32, VAG
Distribution	AltZertG, FinVermV, KfzPflVV, KWGVermV, R 10/2014, VersVermV, VVG, VVG-InfoV, SStellV-VVG	InfoV, R RVV 2012, VAG, VersVG	VVG
Solvency Capital Requirements	Directive 2002/87/EC / R 4/2018, Directive 2009/138/EC, Directive 2014/51/EU, KapAusstV, FinRVV, R 4/2005, R 4/2009	Directive 2002/87/EC, Directive 2009/138/EC, Directive 2014/51/EU	AVO, RS 2016/03, RS 2017/03, RS 2012/1, VAG
Information Requirements required by Regulator	BerVersV, Directive 2002/87/EC / R 4/2018, FKAG, R 1/2004, EAKAV, InhKontrollV, Implementing standards for supervisory reporting, PFAV	VU-AktBV, Directive 2002/87/EC, FK-QUAB-V, VU-MV, VAG, SFT-Vollzugsgesetz	RS 2008/15, RS 2008/25, RS 2016/03, RS 2016/04, VAG
Information Requirements Mandated for the General Public	PrüfV, RechPensV, RechVersV, TransPuG	VU-AktBV, BKV-InfoV, EKV, InfoV, FK-QUAB-V, PRIIP law enforcement, VAG	VAG
Anti-Discrimination	Directive 2006/54/EC, Directive 2004/113/EC	Directive 2006/54/EC, Directive 2004/113/EC, R U.K. 2012	Not regulated
Qualification (Fit and Proper)	MaRisk BA, VAG	VAG	AVO, RS 2017/02, VAG
Insolvency/Guarantee Funds	FinStabG, FMStFG	VAG, FinStaG, IO	VAG
General Regulations			
Money Laundering	GWG, various circular letters	GTV, SoV, various circular letters	GwG, GwV
Compensation Schemes	VersVergV, FinDAGKostV	R 1/2018, VU-TGV	VAG, RS 2010/1
Data Privacy	BDSG, DSGVO	DSG, DSGVO	DSG
Competition Law	TFEU, UWG	TFEU, UWG	KG, UWG

In Section 4.1, I evaluate some of the regulation discussed above in light of academic results on the effectiveness and efficiency of insurance regulation. One positive example is the idea that those selling PRIPs will have to produce key information documents (KIDs) to make it easier for retail investors to compare products. One negative example is the unisex gender directive that no longer allows discriminating between men and women in insurance pricing even though women live longer, are better drivers and so forth, thus possibly leading to adverse selection and higher insurance prices.

2.3 Increasing Costs of Regulation

To my knowledge, there is no holistic representation of the costs and benefits of regulation and no institution that systematically conducts a cost-benefit analysis for insurance.[5] Direct costs are, for example, costs of legislation and company implementation of it. Indirect costs are, for example, reduced returns for owners and higher premiums for policyholders (or even reduced availability of insurance coverage when some risks are not insurable). Direct benefits of regulation (such as reducing asymmetric information and moral hazard) are difficult to measure; indirect benefits may include changes in market structure, such as the exit of high-risk or inefficient operators, but these are also difficult to measure accurately. For the costs, one might also mention that regulation may prevent the development of market structures (e.g., mutuals evolved in the 19th century in the absence of statutory regulation) and that regulatory bureaus are sometimes established and then pursue agendas that are not necessarily in the best interests of those they are meant to serve (public choice theory).

To get an impression of at least a portion of the relevant costs, Table 3 shows the development of the annual costs and number of employees of the financial supervisory authorities in the German-speaking countries of Europe.[6] It is not surprising that the numbers have increased over the last years, especially after the financial crisis in 2008. On average, costs grow by 6.5% to 12.1% per year, and the number of employees grow by 4.7% to 6.6% per year. Haldane (2012) reports similar trends for the regulatory bodies in the U.S. and the U.K. This increase in costs and number of employees is accompanied by an increase in the tasks and duties to be performed by these agencies.

5. Systematic cost-benefit analyses are more common in other sectors, such as the pharmaceutical industry and environmental protection. Until 1998, the former British Financial Services Authority (FSA) conducted systematic cost-benefit analyses for the banking sector before implementing new regulation. In Switzerland, the costs and benefits of every regulation must be analyzed (Art. 170 BV; Art. 7 FINMAG), but this is not consistently done. Some recent laws, such as the too-big-to-fail regulation (2012), are periodically reevaluated.

6. The financial supervisory authorities in these German-speaking countries are all integrated financial services agencies that supervise banking, insurance and security markets. There are differences in the tasks of the agencies so that a cross-country comparison of the absolute level of costs and number of employees is not meaningful. Rather, I am interested in the development over time. Of course, a relative comparison of the three countries needs to control for market size.

Table 3: Costs and Number of Employees of Financial Supervisory Authorities

Year	Costs of financial supervisory authority (million)			Number of employees of financial supervisory authority		
	Germany BaFin (EURO)	Austria Finma (EURO)	Switzerland Finma (CHF)	Germany BaFin	Austria Finma	Switzerland Finma
2002	51.0	-	-	1'277	142	-
2003	91.6	10.0	44.4	1'505	-	-
2004	100.4	12.2	46.4	1'475	199	-
2005	109.7	13.7	48.2	1'631	202	259
2006	112.3	14.3	50.5	1'679	207	274
2007	112.7	15.7	56.5	1'693	228	295
2008	120.4	20.4	62.6	1'716	235	310
2009	129.1	25.7	84.8	1'829	293	359
2010	136.0	30.9	91.1	1'976	299	405
2011	155.1	37.9	97.1	2'151	327	427
2012	165.3	40.5	112.5	2'336	340	477
2013	190.3	43.5	126.8	2'398	360	504
2014	217.6	46.0	127.3	2'535	380	509
2015	237.0	53.5	123.6	2'577	401	527
2016	248.0	56.1	120.6	2'552	411	513
2017	279.0	57.4	120.7	2'602	415	534
2018	320.5	60.1	130.5	2'713	415	537
2019	345.3	62.4	121.7	2'772	420	536
Annual growth rate	11.9%	12.1%	6.5%	4.7%	6.6%	5.3%

3. Unintended Consequences

In addition to its intended consequences, regulation often has unintended side effects. A classic example of this is the guarantee fund in banking and insurance. The intended effect is to protect customers in the event of insolvency, but this goal is counteracted by increased risk taking in the industry.[7] Also well documented is that price regulation, which is intended to protect policyholders from risky low-cost insurers, leads to higher prices and less availability of insurance coverage (see Joskow, 1973; Hill, 1979; Klein, Phillips and Shiu, 2002).

Regarding the complexity of regulations, the new EU insurance regulations, Solvency II, have attracted an especial amount of debate. Like other regulations, the main goals of Solvency II are to protect policyholders and to create a safe and sound industry. However, given the inherent complexity, it is questionable as to whether Solvency II achieves its goals. Indeed, it can be, and has been, argued that due to its complexity, Solvency II is less comprehensible, less transparent and, thus, less effective. For example, Solvency II's first quantitative impact study (QIS 1) contained only eight pages of technical description; in QIS 5, there were 330 pages of this material (not including annexes). Only a few experts will be able to review the model completely. Thus, the risk is that, ultimately, Solvency II will be a black box that only a few people can fully understand.

7. Demirgüç-Kunt and Detragiache (2002) and De Ceuster and Masschelein (2003) document this effect for banking, and Lee, Mayers and Smith (1997), Downs and Sommer (1999), and Dong, Gründl and Schlütter (2015) for insurance.

Another layer of complexity is added by the use of different models (such as local GAAP, Solvency I and Solvency II, ratings, IFRS and MCEV), all of which respond differently to economic changes. This is also of concern since regulators want the managers of insurance companies to base their decisions on these models, especially on the Solvency II model (the so-called use test). What types of decisions will be made with the Solvency II model? A number of academics and practitioners have criticized Solvency II for its ineffective incentives, which are influenced by political decisions, for its impact on the availability of insurance products, and for the risk of regulatory arbitrage. These unintended consequences are discussed below. Note that most of the examples can be transferred to other regulations and other jurisdictions.

3.1 Investment Incentives

Market participants have already noticed that the new market-consistent valuation rules are having a significant impact on asset allocation. Solvency II encourages companies to hold a relatively undiversified portfolio of government bonds, as the required capital for these bonds is very low. This counteracts macroprudential instruments designed to avoid accumulation risks across market participants. If, for example, a new European debt crisis increases the spreads of certain countries or even leads to defaults, all market participants would be heavily negatively affected in the same way. Basel III also favors sovereign debt, so interconnectedness and aligned behavior between banks and insurers might increase. In addition, investments in low-rated and high-duration private-sector debt instruments become less attractive, which might affect the ability of banks to issue long-term unsecured bonds (see CEIOPS, 2010, pp. 123, 131; Al-Darwish et al., 2011; Kaserer, 2011; Fitch, 2011). The attractiveness of real estate is also reduced, of which there is already evidence in the form of increasing sales of real estate instruments by insurance companies (see, e.g., UNIQA, 2014).

However, whether Solvency II will affect insurance companies' investing strategies is not yet clear. Capital requirements for a BBB rating from S&P exceed those of the market risk module under the standard model of Solvency II. Thus, based on the assumption that insurers want to maintain a good rating, the influence of Solvency II on investment behavior might not be as severe as expected (see Höring, 2012, for life insurance companies and a report by Morgan Stanley and Oliver Wyman, 2010, for non-life insurers).

In any case, one problematic aspect is that capital requirements in the market risk module are not riskbased; instead, they are based on political considerations, which is especially obvious when one looks at the European governments' debt financing. The capital requirements for government bonds in the European Economic Community (EEC) are zero, although there are huge differences in riskiness between the various countries. For example, the yield of a German 10-year government bond in January 2015 was below 1%, whereas the yield of the Greek government bond was above 10%. These differences in risks need to be reflected in the capital requirements.

Based on the above discussion, it might be concluded that larger insurers do not follow the Solvency II investment incentives because they want to maintain a good rating. The flip side, however, is that it can also be expected that especially the smaller nonrated insurers will invest relatively heavily in riskier government bonds. Thus, Solvency II promotes ineffective investment decisions.

3.2 Reduction of Product Availability

New regulation might efficiently protect policyholders from harmful insurers, but it might also negatively affect business conditions within the industry, even to the extent of companies deciding to stop selling certain products or exiting the market altogether (as already documented above for the case of price regulation). In short, regulation could make market conditions so unattractive that it is impossible for insurers to earn a risk-adequate return.

Insurers could react to increasing regulatory requirements by modifying their products. A certain product may still be offered, for example, but some of its risks have been transferred to the customer—for example, when comparing classic life insurance with unit-linked life insurance policies. It is understandable that companies are not willing to bear the investment risk over such a long-time horizon, but the implication is that there will be fewer products, and the ones that are available will have fewer features or options. For customers, the combination of guaranteed interest and profit sharing is one of the strongest reasons for investing in a life insurance policy. With the new products, risk is passed on to customers, maybe in a nonsocially optimal manner (see Al-Darwish et al., 2011); it might be better for society to pool the investment risk with insurance companies instead of leaving them with the policyholders.

Moreover, smaller companies might have to leave the market due to increasing regulatory costs. It is understandable that small insurers should be prohibited from engaging in risky business that is beyond their risk-bearing capacity, but the regulatory fixed costs might be so high that small regional insurers have to leave the market. Many practitioners predict a trend toward consolidation in the insurance sector, for example, due to recognition of geographic diversification effects in Solvency II's standard formula. Stoyanova and Gründl (2014) illustrate that Solvency II may indeed lead to a geographic restructuring wave, but they also show that the profitability of this restructuring strongly depends on correct estimation of costs and the characteristics of the consolidation partner chosen. Thus, more consolidation in the insurance sector can be expected, again reducing the number of products available.

3.3 Regulatory Arbitrage

New regulations can raise concern about regulatory arbitrage, especially when they are costly and complex. Recently, regulatory arbitrage received a lot of attention, also in the academic literature for both banking and insurance; examples

are shadow reinsurance (U.S. life insurers ceding risks to less regulated and unrated off-balance-sheet entities) or portfolio rebalancing activities of European insurers with respect to the Solvency II regulations (e.g., Kojen and Jogo, 2016; Kisin and Manela, 2016; Kojen et al. 2017; Gropp et al., 2019). The more complicated the regulation, the more opportunities for gaming (Haldane, 2012). Moreover, if entities in the financial services industry are regulated according to different principles, less restrictively regulated institutions have a competitive advantage, leading to the possibility of a run on the least restrictive regulatory environment. Potential examples include:

- **Banks vs. Insurers:** Laas and Siegel (2013) describe the inaccurate treatment of risk categories and severe inconsistencies between the capital standards for banks and those for insurers. While the latter could lead to an exploitation of regulatory arbitrage opportunities across industries, the former might result in severe distortions in financial institutions' investment decisions.
- **SIFI vs. Non-SIFI:** As soon as an entity is labeled systemically important, moral hazard is created because such a designation guarantees that the bank or insurance company will receive a government bailout if such becomes necessary (see, e.g., Grace, 2011; Harrington, 2011).
- **European Insurers vs. Rest-of-the-World Insurers:** If capital requirements in the EU are too strict, risks might be transferred to non-EU insurers via reinsurance in order to lower the capital requirements and, thus, the cost of capital. This could occur if other supervisory regimes considered to be equivalent are not appropriately designed (see Al-Darwish et al., 2011).

Nevertheless, the risk of regulatory arbitrage may be considered minor from a macro-prudential perspective. Since the AIG crisis, regulatory bodies all over the world have realized that there should not be any regulatory loopholes, and yet regulatory arbitrage continues to be a significant problem that demands continuous monitoring by regulators. For example, regulators in the U.S. recently realized that U.S. life insurers are increasingly ceding their liabilities to affiliated and less regulated off-balance-sheet entities (so-called shadow reinsurers[8]). As Al-Darwish et al. (2011) point out, an increased use of these risk-transfer mechanisms could result in more interconnected financial systems with an opaque distribution of risks, possibly migrating toward less-regulated and supervised areas of the financial system. Of course, there could be other legitimate reasons for shadow reinsurance,

8. Koijen and Yogo (2016) shows that the liabilities ceded by life insurance to shadow reinsures grew from US$11 billion in 2002 to US$364 billion recently. Those companies that use shadow reinsurance cede around 25% of their business to these less regulated entities, which reduces their risk-based capital (RBC) by around 50%. Moreover, the default probability increases by a factor of 3.5.

such as tax optimization. But shadow reinsurance reminds us a bit of recent bad experiences with securitization mechanisms in the financial crisis.

Hence, there is an increased need for supervisors to improve transparency and heighten oversight of these contagion channels; moreover, a careful definition of "equivalent jurisdictions" under Solvency II is needed to avoid such behavior (Al-Darwish et al., 2011). In general, a principle-based approach to regulation that required consideration of all relevant risks might be useful to avoid these problems.

4. How Might Effective and Efficient Insurance Regulation Look?

4.1 Effectiveness of Insurance Regulation

Klein (1995) divides regulatory activities into four broad categories: 1) solvency, including accounting, monitoring the security, and intervention if an insurer is in financial difficulties; 2) prices and policy forms; 3) market practices with respect to distribution and underwriting; and 4) any other function, such as improving customer information.

Solvency

Regarding solvency, most researchers agree that policyholders and insurance companies are best served when government seeks to improve the exchange of information on solvency and prevents the negative externalities arising from insolvency. Despite this positive assessment, the question of what effective solvency regulation looks like is controversial. The actual implementation of such is a matter of much debate, too, since solvency regulation is often complex and may lead to undesirable side effects. Thus, a number of researchers argue for the use of simple models. Several studies on banking and insurance (Haldane, 2012; Pottier and Sommer, 2002) show that simple measures are equally good or even better than more complex ones for identifying companies in financial distress. Moreover, Pfeifer and Strassburger (2008) and Eder, Keiler and Pichl (2014) illustrate that complex models lead to over-parameterization and less robust results. Haldane (2012) shows that with a limited amount of sample data, simple models have greater predictive accuracy than do complex models. Complexity might also lead to a false sense of security as to the accuracy of the models and, thus, increase model risk.[9]

9. See Eling and Schmeiser (2010). Recently, Grace et al. (2015) show that simple solvency models are better than complex ones based on an analysis of cost and revenue efficiency. Moreover, Harrington (2004) argues that there is market discipline in the insurance industry; Thus, simple solvency models are sufficient.

Prices and Policy Forms

Research that examines the impact of price regulation and restrictions on policy forms is quite clear that this type of regulation is not effective. These regulatory measures increase insurance prices, reduce access to insurance coverage and result in a smaller number of transactions (see, e.g., Joskow, 1973; Hill, 1979; Browne and Frees, 2004; Bhattacharya, Goldman and Sood, 2004; Derrig and Tennyson, 2011). Moreover, Klein, Phillips and Shiu (2002) show that insurers whose products are price regulated even have a higher default risk. Thus, the effectiveness of regulation in this area is questionable. Therefore, it is not surprising that with few exceptions, there is almost no price regulation anymore.

Market Practices with Respect to Distribution and Underwriting

The regulation of sales and underwriting practices is the focus of several new initiatives. Of particular note are the Insurance Mediation Directive (IMD) and unisex Gender Directive. The IMD has increased the documentation and disclosure requirements for insurance agents; however, many market participants question whether this increase in the amount of information provided to the customers actually results in customers having better information (Schwarzbach et al., 2011; Braunwarth et al., 2009). An example of unwanted side effects of regulation are the potential adverse selection and higher insurance prices associated with the previously discussed unisex Gender Directive (Saas and Seifried, 2012; Schmeiser, Störmer and Wagner, 2013).

Any Other Function

There is mixed evidence of the effectiveness of improving customer information. Many researchers find evidence of market discipline in insurance, which was a motivation for Solvency II to include a disclosure pillar. But although it seems obvious at first glance that more transparency and information will lead to better decisions on the part of consumers, there is increasing evidence that this is not always the case. Customers react differently to information depending on how it is presented (Glenzer, Gründl, and Wilde, 2013). Too much information leads to information overload, which induces people to use heuristics for decisions (see, e.g., Malhotra, 1982; Scheibehenne, Greifeneder and Todd, 2010). This is especially true for insurance contracts, which are difficult for customers to understand. Cude (2005) shows that many policyholders do not take a detailed look at their contracts and that others look at the contracts, but they do not understand them. Cude (2005) makes specific suggestions for improving contract design (shorter format providing less information; non-legal language; concrete rather than abstract information with examples). Against this background, the development of KIDs, which summarize the major product characteristics in comparable form, seems useful.

Overall, there is general agreement on the usefulness of solvency regulation and the benefits of better information. For both, simple models and presentations are preferred over complex ones. Other regulations (such as price regulation) often do not have the intended effect and sometimes even have undesirable side effects. These conclusions support those of Skipper and Klein (2000), who propose a set of

criteria for successful insurance regulation. They recommend that regulation should be adequate (effective regulation with solvency as primary tool), impartial (consistently used across all market participants) and minimally intrusive (allow the market to determine products and prices; provide customers with the information they need to make informed decisions). Moreover, the regulatory process should be transparent (i.e., that is, establish a fair process for the development of regulation with the opportunity to provide input).

4.2 Efficiency of Insurance Regulation

Even if regulation is effective, the question remains as to its efficiency. Thus, a second step is to check whether the intended regulatory objectives can be achieved with less effort—for example, by using alternative regulatory measures or by non-regulatory policy instruments. Unfortunately, however, for insurance, there is as yet no accepted method of analyzing costs and benefits. Typically, information on regulation costs varies considerably, while the benefits of regulation are either taken for granted or criticized and denied.

One useful tool in this context might be the OECD guidelines for regulatory decision making. (See Table 4.) In 1995, the OECD developed a list of 10 questions that should be answered for every new regulation before it is implemented. One of these questions is whether regulation is the best form of government action (Question 3) or whether alternative non-regulatory measures might not be more efficient. Another question is whether the benefits of regulation justify the costs (Question 6). The OECD also calls for an assessment of the incentives and institutions through which the regulation will take effect and whether responsive implementation strategies are in place (Question 10). One implication of this question is that also *after* implementation of new regulation, the regulations should undergo periodic reevaluation to discover whether their goals are being achieved and bring to light any unintended consequences.

5. Policy Implications

Based on the above discussion, I have three main suggestions for policymakers: 1) reduce the complexity of regulation; 2) increase the transparency requirements in order to better inform customers; and 3) conduct systematic cost-benefit analyses.

5.1 Reduce Complexity

Simple regulation is better regulation. This is true not only because of the tradeoff between costs and benefits of regulation, but also because complex regulation is less effective. Moreover, as the Solvency II example demonstrated, complex regulation has the potential to lead to inconsistent and economically questionable business decisions. The variety of valuation models used (local GAAP,

IFRS, Solvency II, MCEV, etc.) results in duplication, high costs and conflicting goals for management. Some models (e.g., Solvency II) also lead to management decisions that are economically questionable or even dangerous (e.g., accumulation risk, which occurs when every insurer holds an undiversified portfolio of government bonds). Also, comparability across models and across market participants is not given so that the models might result in less, not more, transparency.[10]

Table 4: OECD Checklist for Regulatory Decision-Making (Adapted from OECD, 1995)

1. Is the problem correctly defined?
The problem to be solved should be precisely stated, giving evidence of its nature and magnitude, and explaining why it has arisen (identifying the incentives of affected entities).

2. Is government action justified?
Government intervention should be based on explicit evidence that government action is justified, given the nature of the problem, the likely benefits and costs of action (based on a realistic assessment of government effectiveness), and alternative mechanisms for addressing the problem.

3. Is regulation the best form of government action?
Regulators should carry out, early in the regulatory process, an informed comparison of a variety of regulatory and non-regulatory policy instruments, considering relevant issues such as costs, benefits, distributional effects and administrative requirements.

4. Is there a legal basis for regulation?
Regulatory processes should be structured so that all regulatory decisions rigorously respect the "rule of law"; that is, responsibility should be explicit for ensuring that all regulations are authorized by higher-level regulations and are consistent with treaty obligations, and that they comply with relevant legal principles such as certainty, proportionality and applicable procedural requirements.

5. What is the appropriate level (or levels) of government for this action?
Regulators should choose the most appropriate level of government to take action. If multiple levels are involved, they should design effective systems of coordination between levels of government.

6. Do the benefits of regulation justify the costs?
Regulators should estimate the total expected costs and benefits of each regulatory proposal and of feasible alternatives, and should make the estimates available in accessible format to decision-makers. The costs of government action should be justified by its benefits before action is taken.

7. Is the distribution of effects across society transparent?
To the extent that distributive and equity values are affected by government intervention, regulators should make transparent the distribution of regulatory costs and benefits across social groups.

8. Is the regulation clear, consistent, comprehensible and accessible to users?
Regulators should assess whether rules will be understood by likely users. To that end, they should take steps to ensure that the text and structure of rules are as clear as possible.

9. Have all interested parties had the opportunity to present their views?
Regulations should be developed in an open and transparent fashion, with appropriate procedures for effective and timely input from interested parties, such as affected businesses and trade unions, other interest groups or other levels of government.

10. How will compliance be achieved?
Regulators should assess the incentives and institutions through which the regulation will take effect, and they should design responsive implementation strategies that make the best use of them.

10. If market participants do not all calculate their results based on the same assumptions, comparability is not given. One recent example of this is the Basel Committee's recalibration of the leverage ratio, which was necessary because the calculation is different depending on whether a bank is complying with IFRS or U.S. GAAP (see Lanz, 2014).

An important step toward simplification would be a harmonization and standardization of different modeling approaches. Simplifications in risk capital calculation might be useful. One promising approach in this context is the easier model used by S&P for its ratings. Also, the recently published Basic Capital Requirements (BCR) of the IAIS for international active insurance groups (IAIGs) are much easier than other solvency models. Moreover, it may be recalled that originally IFRS 4 and Solvency II were going to be reconciled. Although these two models have different focuses, it still might be useful to return to the idea of harmonizing their main modeling elements.

Simple regulation also has its drawbacks, since simple measures cannot account for all the complexity of the real world. However, the concept of principle-based regulation can play a prominent role here. If we use less complex regulation together with the principle that all relevant risks must be recognized and documented, then the incentives for regulatory arbitrage might be reduced. Thus, principle-based regulation can be useful, but it requires strict enforcement in the event of misconduct and imbalances. Principle-based regulation with risk-based supervision enables holistic risk assessment and helps avoid systemic crises.[11] Complex regulation does not guarantee stable financial markets (Haldane, 2012) and can even increase the risk of a systemic crisis. For example, it has been shown that Solvency II increases the fragility of the insurance industry and exposes companies to a potentially huge systemic effect, as the bigger/better diversified insurers have high default probabilities in the event of market shortfalls (see Floreani, 2014).[12]

5.2 Increase Transparency

Increasing transparency could improve market discipline and, therefore, result in both customers and management making better decisions (see, e.g., Epermanis and Harrington, 2006; Eling and Schmit, 2013; Dong, 2014). One idea is to publish all ratings and solvency capital ratios of financial institutions in a prominent place—for example, on the regulator's website or on websites of consumer protection associations. Also, publication of qualitative information—for example, the internal risk management of an institution—would be beneficial. Another way to increase transparency is the publication of KIDs that summarize the main product features in a short and comparable form. This information also could be made publicly available.

11. See Eling and Schmeiser (2010); the insurance regulation in many industrialized countries has shifted from a rules-based approach toward a principle-based approach (e.g., Europe, U.S., Japan and Australia). Thus, principle-based regulation, together with risk-based supervision, can be considered as best practice internationally. See, e.g., IAIS Core Principals (2013); Eling, Klein, and Schmit (2011); and Black (2008).

12. Note that I do not argue for having only one model since this would result in several disadvantages, such as risk of parallel behavior or the loss of the ability to innovate. Consequently, probably a few models are optimal. But the complexity of the models should be reduced to facilitate understanding their dynamics and so that supervisors are able to verify these at reasonable cost.

None of these ideas should result in additional regulations. The transparency requirements could be accomplished via voluntary disclosure. If the majority of the industry agrees on publishing the information in standardized form—for example, on the web page of the insurance association—then companies that do not so participate could be subject to market discipline, eventually resulting in their compliance also. Publication of this sort of information could also foster competition, which is beneficial for customers in terms of better products and services at lower prices.

5.3 Conduct Systematic Cost-Benefit Analyses

New regulation should be enacted only when the total benefits outweigh the total costs. Thus, I suggest performing a cost-benefit analysis for every new regulation. Moreover, a couple of years after implementation of a new regulation, the costs and benefits should be reevaluated. As proposed by the OECD in its guidelines for regulatory decision-making, regulators should estimate the total expected costs and benefits of each regulatory proposal and of feasible alternatives, and they should make the estimates available to the public. The costs of regulation should be justified by its benefits before action is taken. To date, this is not consistently done. As mentioned previously, it is difficult to estimate costs and benefits of insurance regulation, but a good first step in this direction would be answering the 10 questions set out in the OECD's checklist for regulatory decision-making. (See Table 4.) Even a brief and incomplete discussion of the costs and benefits of regulation could be an improvement.

Cost-benefit analyses have limitations. One difficulty is that parties affected by regulation may lobby for a certain result of the cost-benefit analysis (see Eling and Pankoke, 2016). The regulated companies have an incentive to report inflated compliance costs by adding to them costs that would be incurred even in the absence of the regulation (e.g., information technology (IT) systems for financial reporting). Cochrane (2014) discusses this issue in detail and points out the danger of regulatory capture; that is, if cost-benefit analyses are mandatory, they can be strongly influenced by lobby groups at the expense of the public interest. Becker (2000) likewise acknowledges the problem but argues that the most adversely affected groups invest most in lobbying, and, therefore, the cost-benefit analysis is still useful.

6. Conclusion

As illustrated by the financial crisis of 2008, the financial system is becomingly ever more complex. The political response to this is to enact an increasing number of increasingly complex regulations. This article discussed the complexity of regulations and some of the unintended consequences they may have. Solvency II was used as an example in many instances, but the ideas, arguments and suggestions

are generalizable to other types of regulation and other jurisdictions. Potential negative consequences of too much and too complex regulation include economically ineffective decisions and reduced product availability. Moreover, regulatory arbitrage is a significant problem. In general, the complexity of regulations makes insurance regulation less comprehensible, less transparent and, thus, less effective.

I recommend reducing complexity, increasing transparency and conducting systematic cost-benefit analyses for regulation. Simplifying the Solvency II model (in a direction like the S&P rating model or the IAIS BCR capital requirements) and harmonizing it with IFRS will be useful steps toward reducing complexity. The publication of solvency ratios und key information documents are possible ways of increasing transparency. Regarding systematic cost-benefit analyses, I recommend using the OECD checklist on regulatory decision-making. These measures might result in the same level of effectiveness of insurance regulation, but at lower costs. Moreover, increased transparency can foster competition and, thus, result in better services and prices for the customer. Implementation of these suggestions, however, should *not* result in additional regulation; for example, better transparency might be achieved via voluntary disclosure.

The proposal to use the OECD checklist on regulatory decision-making is only a starting point. Future research is necessary on how to measure the costs and benefits of insurance regulation. Based on such an analysis, a more thorough investigation into how to conduct a systematic cost-benefit analysis in insurance regulation is needed. But even a brief and incomplete analysis of the costs and benefits of regulation is better than none at all.

Appendix A: Regulations in Germany, Austria and Switzerland

The following Table A1, Table A2 and Table A3 show laws, ordinances and circulars for Germany, Austria and Switzerland that insurers must comply with.[13] While the purely qualitative comparison of the relevant laws does not allow to draw any conclusions about the scope and complexity of the regulation, the list of laws, ordinances and circulars shows the high number of regulations that must be followed in the German-speaking area.

13. All laws, ordinances and circulars that are named on the websites of the respective supervisory authorities (German BaFin, Austrian FMA and Swiss FINMA) and apply to insurers are considered to be relevant regulatory provisions in this context. The information was collected January 29, 2021. Since the overview is limited to the insurance regulator's website, the list does not necessarily claim to be complete.

Table A1: Insurance Regulation in Germany

Laws and Ordinances	Circulars	
• Aktuarverordnung (AktuarV) • Altersvorsorgeverträge-Zertifizierungsgesetz (AltZertG)	R 03/2016	Treuhänder zur Überwachung des Sicherungsvermögens
• Anlageverordnung (AnlV) • Bundesdatenschutzgesetz (BDSG) • Datenschutzgrundverordnung (DSGVO) • Deckungsrückstellungsverordnung (DeckRV)	R 3/1995	Voraussetzung für die Bestellung eines Verantwortlichen Aktuars
• Durchführungsstandards für aufsichtliche Meldungen		
• Deutscher Corporate Governance Codex (DCGK) • Equal Treatment (Directive 2006/54/EC / Directive 2004/113/EC)	R 3/1998	Hinweise zu Lösegeldversicherungen
• Finanzanlagenvermittlungsverordnung (FinVermV)	R 1/2004	Durchführung von Stresstests
• Finanzdienstleisungsaufsichtsgesetz-Kostenverordnung (FinDAGKostV) • Finanzkonglomerate-Aufsichtsgesetz (FKAG)	R 11/2017	Kapitalanlagen von Versicherern
• Finanzmarkstabilisierungsfondsgesetz (FMStFG)	R 4/2005	Solvabilität der Versicherungsunternehmen
• Finanz- und Risikotragfähigkeitsinformationenverordnung (FinaRisikoV) • Finanzrückversicherungsverordnung (FinRVV)	R 12/2005	Aufstellung und Führung Vermögensverzeichnisse
• Finanzstabilitätsgesetz (FinStabG)		
• Verordnung zum elektronischen Anzeigeverfahren für inländische Investmentvermögen und EU-Investmentvermögen nach dem Kapitalanlagegesetzbuch (EAKAV)		
• Geldwäschegesetz (GwG)	R 10/2014	Zusammenarbeit mit Versicherungsvermittlern, Risikomanagement im Vertrieb
• Gesetz gegen den unlauteren Wettbewerb (UWG)	R 1/2008	Beteiligung der Versicherten an Bewertungsreserven Sterbekassen
• Inhaberkontrollverordnung (InhKontrollV)	R 12/2008	Berechnung Gutachten Sterbekassen
• Kapitalanlagegesetzbuch (KAGB)	R 4/2009	Berechnung Solvabilität
• Kapitalanleger-Musterverfahrensgesetz (KapMuG)	R 4/2018	Finanzkonglomerate-Solvabilität
• Kapitalausstattungs-Verordnung (KapAusstV)		
• Kraftfahrzeug-Pflichtversicherungsverordnung (KfzPflVV / Directive 2009/103/EC)	R 3/2013	Beschwerdebearbeitung
• Krankenversicherungsaufsichtsverordnung (KVAV)	R 9/2020	Aufsichtsrechtliche Mindestanforderungen an die eigene Risikobeurteilung (ERB) von Einrichtungen der betrieblichen Altersversorgung
• KWG-Vermittlerverordnung (KWGVermV) • Mindestanforderungen an das Risikomanagement (MaRisk BA)	R 1/2020	Aufsichtsrechtliche Mindestanforderungen an die Geschäftsorganisation von kleinen Versicherungsunternehmen nach § 211 VAG (MaGo für kleine VU)
• Mindestzuführungsverordnung (MindZV)		
• Pensionsfonds-Aufsichtsverordnung (PFAV)	R 11/2018	Zusammenarbeit mit Versicherungsvermittlern sowie zum Risikomanagement im Vertrieb
• Pensionsfonds-Rechnungslegungsverordnung (RechPensV)	R 10/2018	Versicherungsaufsichtliche Anforderungen an die IT (VAIT)
• Prüfungsberichteverordnung (PrüfV)	R 3/2018	Hinweise für die Aufstellung
• Solvency II (Directive 2009/138/EC und 2014/51/EU)	R 2/2018	versicherungsmathematischer Gutachten bei Pensionsfonds und -kassen
• Supervison of financial conglomerates (Directive 2002/87/EC)	R 2/2017	Mindestanforderungen an die Geschäftsorganisation von Versicherungsunternehmen (MaGo)
• Transparenz- und Publizitätsgesetz (TransPuG)	R 1/2016	Neufassung des Informationsblates Krankenversicherung der BaFin
• Treaty on the functioning of the European Union (TFEU)	R 1/2021	Berechnung der Mindestbeitragsrückerstattung in der Lebensversicherung
• Versicherungsaufsichtsgesetz (VAG)	R 8/2017	Derivative Finanzinstrumente und strukturierte Produkte
• Versicherungsberichterstattungs-Verordnung (BerVersV)	R 7/2017	Unterrichtung der Aufsichtsbehörde über die Werte zur Berechnung der Mindestbeitragsrückerstattung
• Versicherungsteuergesetz (VersStG)	R 6/2017 R 7/2016	Aufstellung und Führung eines Vermögensverzeichnisses
• Versicherungsunternehmens-Rechnungslegungsverordnung (RechVersV)	R 4/2017	Änderungen am internen Modell von VU
• Versicherungs-Vergütungsverordnung (VersVergV)	R 9/2017	Mindestanforderungen an das Risikomanagement - MaRisk
• Versicherungsvermittlungsverordnung (VersVermV) • Versicherungsvertragsgesetz (VVG) • VVG-Informationspflichtenverordnung (VVG-InfoV) • VVG-Schlichtungsstellenverordnung (SStellV-VVG)		

Table A2: Insurance Regulation on Austria

Laws and Ordinances	Circulars	
• Aktuarsberichtverordnung (VU-AktBV)	R AAPP 2003	Anforderungen Aktuar prämienbegünstigte Zukunftsvorsorge
• Betriebliche Kollektivversicherung Informationspflichtenverordnung (BKV-InfoV)	R AP 2005	Abschlussprüfung
• Börsegesetz (BörseG)	R AH 2004	Abschluss Haftpflichtversicherung
• Datenschutzgesetz (DSG)	R CRB 2017 / 2018	Compliance-Regelungen gemäss Börsengesetz
• Datenschutzgrundverordnung (DSGVO)	R FEA 2004	Fachlich Eignung Aktuar
• Eigenmittelerfordernisverordnung (kV-EEV)	R GP 2010	Garantieprodukte
• Eigentümerkontrollverordnung (EKV)	R GR 2006	Gewinnbeteiligung Rentenversicherung
• Equal Treatment (Directive 2006/54/EC / Directive 2004/113/EC)	R GT 2018 / 2019	Geldwäsche Terrorismusfinanzierung
• Finanzkonglomerategesetz (FKG)	R IMEG 2003	Interne Modell und externer Gutachter
• Finanzkonglomeratsquartalsberichts-Verordnung (FK-QUAB-V)	R IMPZ 2003	Internes Modell Prämienbegünstigte Zukunftsvorsorge
• Finanzmarktstabilitätsgesetz (FinStaG)	R 1/2018	Grundsätze der Vergütungspolitik und -Praktiken
• Finanzmarkt-Geldwäschegesetz (FM-GwG)	R NRP 2005	Negative Risikoprämien
• Geldwäscherei- und Terrorismusfinanzierungsrisiko-Verordnung (GTV)	R PP 2013	Parallele Pensionslösungen
• Gesetz gegen den unlauteren Wettbewerb (UWG)	R RK 2017 / 2020	Rechnungszins Krankenversicherung
• Gewinnbeteiligungs-Verordnung (VU-GBV)	R RVV 2012	Rückdatierung von Versicherungsverträgen
• Gewinnplanverordnung (GPV)	R TK 2005	Tarifanpassungen Krankenversicherung
• Höchstzinssatzverordnung (HZV)	R TV 2008	Tätigkeit Versicherungsunternehmen
• Informationspflichtenverordnung Versicherungsunternehmen (InfoV	R UK 2012	Unisex-Rechnungsgrundlagen
• Insolvenzordnung (IO)	R ÜL 2005	Überdeckungen Lebensversicherungen
• Kapitalanlageverordnung (KAV)	R VT 2003	Versicherungspool Terrorrisiken
• Meldeverordnung (VU-MV)	1/2006	Differenzierung der Gewinnbeteiligung Rentenversicherung
• Motor vehicles civil liability (Directive 2009/103/EC)	1/2008	Abbildung Geschäft Pensionskassen
• PRIIP Vollzugsgesetz	4/2018	Basisinformationsblätter für PRIIPs
• Rechnungslegungsverordnung (RLVVU)	4/2018	Spezifische Fragestellungen Abschlussprüfer
• Schwankungsrückstellungs-Verordnung (SWRV)	2/2020	Wertpapierleigeschäfte im Deckungsstock von VUs
• Standard Compliance Code der österreichischen Versicherungswirtschaft (SCC)		
• Solvency II (Directive 2009/138/EC und 2014/51/EU)		
• Sorgfaltspflichtenverordnung (SoV)		
• Supervison of financial conglomerates (Directive 2002/87/EC)		
• Treaty on the functioning of the European Union (TFEU)		
• Treuhändergebührverordnung (VU-TGV)		
• Bundesgesetz über die Transparenz von Wertpaperfinanzierungsgeschäften (SFT-Vollzugsgesetz)		
• Versicherungsmathematische Grundlagenverordnung (LV-VMGV)		
• Rechnungslegung von Versicherungs- und Rückversicherungsunternehmen (VU-RLV)		
• Verbriefungsvollzugsgesetz (STS-VVG)		
• Versicherungsaufsichtsgesetz (VAG)		
• Versicherungsvereine auf Gegenseitigkeit – Rechnungslegung (RLVkV)		
• Versicherungsvertragsgesetz (VersVG)		
• Verzeichnisverordnung (VU-VerzV)		
• Prämienbegünstigte Zukunftsvorsorge-Zusatzrückstellungs-Verordnung (PZV-ZRV)		

Table A3: Insurance Regulation in Switzerland

Laws and Ordinances	Circulars	
• Aufsichtsverordnung (AVO) • Bundesgesetz gegen den unlauteren Wettbewerb (UWG) • Bundesgesetz über den Datenschutz (DSG) • Geldwäschereigesetz (GwG) • Geldwäschereiverordnung-FINMA (GwV) • Kartellgesetz (KG) • Verordnung über die Aufhebung von Beschränkungen der Vertragsfreiheit in Versicherungsverträgen • Versicherungsaufsichtsgesetz (VAG) • Versicherungskonkursverordnung-FINMA (VKV) • Versicherungsvertragsgesetz (VVG)	RS 2008/15 RS 2017/04 RS 2016/05 RS 2008/25 RS 2016/04 RS 2017/02 RS 2016/03 RS 2016/06 RS 2017/05 RS 2018/04 RS 2008/42 RS 2008/43 RS 2017/03 RS 2010/01 RS 2010/03 RS 2011/03 RS 2012/01 RS 2016/02 RS 2013/03 RS 2013/05	Fusionen Krankenversicherer Verantwortlicher Aktuar Anlagerichtlinien Versicherer Auskunftspflicht Versicherer Versicherungsgruppen und -konglomerate Corporate Governance Versicherer Kapitalbedarf Rückversicherungscaptives Lebensversicherung Geschäftspläne – Versicherer Tarifierung – berufliche Vorsorge Rückstellungen Schadenversicherung Rückstellungen Lebensversicherung SST Vergütungssysteme Krankenversicherung nach VVG Rückstellungen Rückversicherung Ratingagenturen Offenlegung - Versicherer Prüfwesen Liquidität Versicherer

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