Vol. 01, No. (1) 2018, Pg. 24-53

Journal of Business Strategy, Finance and Management

www.jbsfm.org

The Dangers Associated With Solvency II's Imitation of Basel II

KOEN BYTTEBIER and KRISTINA LOGUINOVA*

Free University of Brussels/Vrije Universiteit, Brussel (VUB) Belgium.

Abstract

Ten years have passed since the last financial and economic crisis. As such, it is a good time to assess and to be reminded of the lessons that were learned and, more importantly, the lessons that were not learned, when it comes to the post-crisis reform of EU's financial regulatory system. The current article aims at identifying the extent to which the Solvency II directive which codifies and harmonises regulation regarding EU's largest institutional investors, i.e. insurance undertakings, imitates its source of inspiration, Basel II, in order to introduce a critical way of thinking about the identified level of imitation. The main argument of this contribution is that since Solvency II is supposed to be revised this year, the EU legislator should embrace this opportunity to abstain from treating insurance undertakings as banks regulated under Basel II since Basel II did not prevent the financial and economic crisis of 2008 and arguably even added fuel to the fire. Moreover, the current article presents several other arguments as to why the regulatory model of Basel II is by no means a danger-free inspirational source for regulating insurance undertakings.

Article History

Received: 20 July 2018
Accepted: 9 October 2018

Keywords

Basel II;
EU Financial Law;
Financial and Economic Crisis;
Solvency II.

Introduction

Recently, a new solvency regulatory model for 'insurance undertakings'[1], i.e. the largest institutional investors in the European Union (EU)[2], generally known under the abbreviated reference 'Solvency II directive'[3], was introduced by the EU legislator to the EU. Since the new solvency regulatory model in question was inspired by 'Basel II'[4,5] it is interesting to investigate the question as to what extent the imitation by the Solvency II directive of Basel II has been reached and, subsequently, to form a judgement on whether the identified level of imitation makes any sense whatsoever. All the more so since Solvency II is planned to be revised this year (2018).[6] The current article therefore has been based on a cross-sector comparison of the similarities and the differences between banking and insurance ('legal'[7]) rules in order to critically establish the extent to

CONTACT Dr. Kristina Loguinova k.loguinova@outlook.com Free University of Brussels/Vrije Universiteit, Brussel (VUB) Belgium.

Doi: http://dx.doi.org/10.12944/JBSFM.01.01.03

which, on a regulatory level, insurance undertakings that behave differently from 'banks'[8], are treated as banks in the EU today.[9]

The identification of the said imitation level can have significant implications which, arguably, have not been sufficiently taken into consideration by the EU legislator. If, for instance, the comparative analysis indicates a high level of imitation by the Solvency II directive of Basel II and thus of insurance undertakings, to a large extent, on a regulatory level, being treated as banks, it may have become inevitable for such insurance undertakings to adapt their behaviour and, as such, begin to behave as banks. The desirability of such a behavioural adaptation is questionable since the Basel II rules did not prevent the huge financial (solvency) crisis of 2008 and its devastating effects on society as a whole. It could therefore be feared that the said regulatory imitation could put the entire EU insurance sector in jeopardy and have unwanted social effects overall.[10]

Per se, the current article, written from a legal inclination, contributes to the existing doctrine on the comparison of Basel II and the Solvency II directive.[11] The comparison of these two legislative models[12] is subsequently itself by no means a novel exercise. However, the current article does seek to innovate by introducing several new critical reflections into the comparison and by occasionally mentioning new comparative aspects. In fact, the aim of the current article is to introduce a critical way of thinking about Basel II inspiring the Solvency II directive, for which purpose the comparison of Basel II and the Solvency II directive is an unavoidable means to an end, rather than an end in itself.

Structure-wise, the current article commences in part 2 with a comparison of the 'form'[13] (external and internal) and the content of both models.[14] In turn, the comparison of the content of the models is divided into a comparison of their objectives and a comparison of the equivalent rules enveloped in their three-pillar structures. The last-mentioned comparison hereby only concerns the first pillar of both models. It should in this regard be mentioned that deciding to focus on one particular pillar has been tricky since pillars 2 and 3 within Basel II are thought of as "supporting pillars acting as buttresses to [p]illar 1"[15], whilst pillar 2 is considered to be the highlight of the Solvency II directive.[16] Nevertheless, due to the innovative character of the pillar 1 rules of the Solvency II directive for the EU insurance sector and due to the fact that the Solvency II directive imitates Basel II and not vice versa, we consider this decision to be cogent.

Part 3 of the current article contains a general critical note on the inspirational source perspectives of Basel II. This general critical note is followed up by the final and most important part of the current article, i.e. its conclusion. The conclusion is particularly concerned with identifying the level of imitation based on the entire comparison conducted in part 2 and encapsulates some additional remarks on the sensibility of the identified level.

The Extent of the Legal Imitation Game with Critical Reflections

The Form of the Instruments

Although Basel II and the Solvency II directive are second generation instruments that were both preceded by several Quantitative Impact Studies (QIS)[17], they bear witness of fundamental differences as regards their external form when compared to each other.

To start with the obvious, at the outset, contrary to the Solvency II directive, Basel II has not been construed as a piece of legislation enacted by an institution which belongs to a political or economic union with supranational authority. It is simply put a set of guidelines consensually agreed upon by central banks and competent bank supervisory authorities from the various member countries belonging to the Basel Committee on Banking Supervision (BCBS).[18] The charter of the BCBS states that the "BCBS does not possess any formal supranational authority. Its decisions do not have legal force. The BCBS rather relies on its members' commitments (…) to achieve its mandate".[19] Basel II is therefore not the result of a democratic process involving weighted voting procedures (democratic control). It is also not published in any official journal of the BCBS although it can be consulted through the website of the BCBS.[20]

In theory, such a set of play indicates that BCBS members, among which the EU represented by the European Central Bank and the European Central Bank Single Supervisory Mechanism[21], make their own decisions at the end of the day whereby they can ignore proposed guidelines; theoretically speaking, compliance with proposed BCBS-rules is voluntary and cannot be legally enforced. However, membership of the BCBS implies a moral commitment to comply and implement.[22] This implied moral commitment can be found further along in the charter of the BCBS where it is stated that the "BCBS expects full implementation of its standards by BCBS members and their internationally active banks. However, BCBS standards constitute minimum requirements and BCBS members may decide to go beyond them. The Committee expects standards to be incorporated into local legal frameworks through each jurisdiction's rule-making process within the pre-defined timeframe established by the Committee. If deviation form literal transposition into local legal frameworks in unavoidable, members should seek the greatest possible equivalence of standards and their outcome."[23]

Therefore, although compliance with the Basel II rules is in theory voluntary, it is in practice expected. DE BELLIS provides more insight into this oxymoron of the hard impact of 'soft law'[24] (also known as "the hardening of soft law") by explaining that compliance actually depends on the "expertise and capacity of persuasion"[25] of the body setting up the guidelines. The higher the expertise amongst the members of such an informal (or self-regulatory) body, the higher the capacity of its persuasion, or, if you will, the harder the impact of the soft law it generates. Experience demonstrates that these are two qualities that the BCBS does not lack.[26] Namely, Basel II has not only inspired the Solvency II directive for insurance undertakings but has additionally been converted into EU law by the former Capital Requirements Directives ('CRDs'[27]) for banks and investment firms to a large extent. Nowadays, the rules of Basel III are likewise substantially implemented through the 'CRD IV package'[28] for banks and investment firms.

These qualities of expertise and the capacity to persuade do not dominate the story of the Solvency II directive as a legal instrument de jure and de facto. The Solvency II directive enjoys explicit "binding"[29] legal power in contrast to its inspirational source, and, at least in theory, has been the outcome of a democratic process for EU secondary legislation. As is the case with all EU secondary legislation in the form of directives, the Solvency II directive's to-be-achieved results are mandatory although the authorities of the EU Member States can choose the form and method to achieve these.[30] The EU Commission is hereby charged with monitoring the transposition measures taken by the EU Member States to achieve the results of the Solvency II directive and ultimately has the ability to take disobedient Member States to the European Court of Justice - the latter being obviously a non-existing option as regards to Basel II.

Another non-existent option with Basel II resulting from its external format, concerns the option to confer powers to a competent supervisory authority in charge of safeguarding the public interest since such an authority does not exist within the contest of the BCBS. On the contrary, such an authority does exist in case of the Solvency II directive: the European Insurance and Occupational Pensions Authority (EIOPA) which has been active since 2011.[31] EIOPA forms part of the European System of European Supervision (ESFS)[32] and has powers conferred to it by, inter alia, the Solvency II directive[33] "to protect the public interest by contributing to the short, medium and long-terms stability and effectiveness of the financial system, for the Union economy, its citizens and its businesses."[34] However, under the Solvency II directive, national day-to day supervisory mechanisms of insurance undertakings remain relevant notwithstanding the existence of EIOPA. In fact, under the Solvency II directive, national supervision is just as important as national supervision within members of Basel II, as the Solvency II directive clearly states that financial supervision of insurance undertaking and their business is "the sole responsibility of the home Member State".[35]

Not withstanding these considerable differences between the external forms of the two instruments in question and the diverse implications these differences bring about, the internal forms of both instruments show important similarities. That is to say, both Basel and the Solvency II directive can be described as so-called 'framework instruments' containing general rules in the form of guiding principles[36] rather than detailed prescriptive rules. In the case of the Solvency II directive this is essentially the case because it is a Lamfalussy level 1 piece of EU legislation.[37] These 'guiding principles'[38] are moreover deemed to be proportionate to the objectives of both instruments and to the nature, size and risks of the companies these instruments envision to control.[39] Furthermore, both Basel II and the Solvency II directive attempt to create a common rulebook – leading to the creation of a "level playing field" for the companies they aim to control - in regards of their respective subject matters. Technically speaking, this intention is realized by means of convergence as in the case Basel II, and by means of harmonization as in the case of the Solvency II directive.[40]

By choosing for guiding principles rather than detailed rules, the EU legislator has followed the example of the BCBS in shifting the responsibility from the competent supervisory authority to the controlled company and its (senior) management when it comes down to achieving compliance with such rules.[41] Only time is equipped to tell whether the EU legislator has made a sensible choice. WANDT and SEHRBROCK have however already pointed out that, in general, principles-based legislation above all leads to legal uncertainty for insurance undertakings.[42] An additional alarming point in regards to this notion of principles-based rules is that they might lead to the construction of innovative and creative ways to get round them, as has been the case with Basel II.[43]

Finally, both instruments contain a three pillar structure to reveal their rules on quantitative, qualitative[44] and disclosure requirements.[45] However, within the Solvency II directive itself, this three-pillar structure is less observable than in Basel II. Particularly, the Solvency II directive contains no literal reference to pillars like its source of inspiration. It even seems that the reason why Solvency II directive's internal structure has become synonymous with the three pillar approach is because it was inspired by the internal structure of Basel II and because CEIOPS adopted the three pillar structure to frame the supervisory review process of the Solvency II directive more clearly.[46] A literal reference to the three pillars in chronological order can nevertheless be found in the Solvency II system overall, more specifically in the first title of the Solvency II delegated regulation (Lamfalussy level 2).What is more, whereas the three pillars within Basel II follow each other in chronological order, the Solvency II directive does not stick to that chronology, describing the rules on supervision (Title I, Chapter III) and governance and disclosure (Title I, Chapter IV) before the rules on capital and capital requirements (Title I, Chapter VI).

The structure within each pillar in Basel II and the Solvency II directive differs considerably as well. For instance, the content of Basel II's pillar 1 is organized according to types of risks whereas the content of Solvency II directive's pillar 1 is organized into thematic sects (sections).

The Content of the Instruments

Main Objectives

Obviously, the subject matters of Basel II and the Solvency II directive are different. The latter contains the entire rulebook for insurance undertakings operating on the territory of the EU[47], while the former concerns a smaller range of rules in regards to capital, supervision and reporting for internationally active banks. Nevertheless, instruments with different subject matters can pursue similar objectives. Hence, regulating capital requirements and supervision mechanisms constitute an important part of the Solvency II directive. These rules are also linked to the objectives of consumer protection and market confidence.[48] Consequently, it is sensible to compare and contrast the 'main objectives'[49] of the two instruments in order to see to what extent the Solvency II directive imitates the objectives of Basel II, if it does so at all.

The main objectives of Basel II are to "further strengthen the soundness and stability of the international banking system while maintaining sufficient consistency that capital adequacy regulation will not be a significant source of competitive inequality among internationally active banks"[50], "to promote the adoption of stronger risk management practices by the banking [sector]"[51] and "the protection of depositors".[52] However, these objectives do not particularly stand out in the text of Basel II, nor are they described in the same place in the text.

Additionally, there is no particular hierarchy indicated between depositor protection, bank risk management and the strengthening of sound, stable and competitive markets for banks in Basel II. The impression is even created that providing good functioning markets for banks, where good relations between banks are maintained and where banks are well positioned to assess their risks, is of more importance than the protection of the banks' consumers. This impression is affirmed by the "emphasis on the self-regulating mechanism of a market"[53] in Basel II, since the theory of the self-regulating market assumes that consumers benefit automatically - as a by-product - from a market at work without any form of government intervention.

Generally speaking, the Solvency II directive is said to aim for the creation of a solvability regime that accounts for all the risks encountered by an insurance undertaking, to widen the EU internal market by implementing uniform solvability rules and to increase competition between insurance undertakings by connecting capital requirements to virtuous risk management practices.[54] In this respect, the Solvency II directive is almost identical to Basel II. Nevertheless, when one examines the actual content of the Solvency II directive and what this directive intends to promote with greater precision, a different picture emerges out of the mist.

The main objectives of the Solvency II directive are described in two successive articles. Article 27 states that the first and foremost aim of the Solvency II directive is "the protection of policyholders and beneficiaries".[55] Article 28, an article added to the Solvency II directive after the last financial and economic crisis[56], continues by mentioning the "stability of the financial systems"[57] and by expressing its wariness towards "pro-cyclical effects".[58] Both are concepts that one would not necessarily expect in a directive that concerns rules for the entire business of companies usually known as shock-absorbers instead of shock-transmitters[59] within our financial system.

In contrast to Basel II, the Solvency II directive presents a hierarchy between these objectives. It is hereby clearly stated that priority is given to the protection of the consumers of insurance services.[60] Establishing adequate consumer protection is therefore more important for the Solvency II directive than promoting a self-regulating market mechanism.[61] Furthermore, the financial stability objective of the Solvency II directive is much broader as it refers to the definition of financial markets given in the 'ESRB regulation'[62] and comprises all financial institutions, markets, products and market infrastructures.[63] Consequently, it can be argued that the Solvency II directive seeks to accomplish stability in each financial sector of the EU financial system, whereas the stability objective of Basel II only refers to the (international) banking sector.

Additionally, another difference that distinguishes the Solvency II directive from Basel II is the objective of the former to promote 'long-term investment'[64] in order to foster growth and recovery in the EU.[65] But this is only a theoretical difference since it well-known that banks are in the business of channelling people's savings into credit for economic investments that promote economic growth anyway. It furthermore needs to be remarked that after the financial and economic crisis of 2008, the EU legislator set out the so-called Europe 2020 strategy for smart, sustainable and inclusive growth. Its ultimate intention is for the EU to emerge out of the last financial and economic crisis in a stronger position than before.[64] A large part of this strategy involves ensuring that an adequate contribution to the EU real economy is to be made by the financial sector given its responsibility for said financial (and economic) crisis.[67] It has in this regard been decided that the needs of long-term investments that are deemed of vital importance for realizing the Europe 2020 strategy are going to be provided for by actors from the financial sector in the broad sense of the word, among which insurance undertakings.[68]

Pillar 1: The Quantitative Rules

As mentioned earlier, the Pillar 1 of the Solvency II directive, encompassed in its chapter VI of Title I, is subdivided into five sections. These sets of rules relate to the valuation of assets and liabilities, technical provisions, own funds, capital requirements and investment behaviour.

In order not to dwell into the technical domains of actuarial science and insurance economics, the following comparison will concern the main rules of these sections and their equivalents present in Basel II, apart from the section on technical provisions since this section is strictly related to the insurance business and hence not addressed in Basel II. The first pillar of Basel II and the first pillar of the Solvency II directive namely contain calculation methods and guidelines that extend beyond the skills of the legal profession these days.[69]

Notice should be taken of the fact that Basel II's pillar one rules have to be applied on a consolidated basis all the time; consolidated accounts need to be taken into account to determine the capital requirements according to Basel II.[70] The Solvency II directive on the other hand provides pillar 1 rules for individual or solo insurance undertakings in Title I and then follows-up with calculation methods on the basis of consolidated accounts for group solvency in Title III.

Valuation of Assets and Liabilities

In Basel II assets are valued in a scattered manner. Not only are assets valued differently depending on their class, their own valuation differs also, depending on the risk category to which they belong; credit risk, operational risk or market risk.[71] This valuation method is completely different to the valuation method of the Solvency II directive. The Solvency II directive is much clearer and much more comprehensible on the matter. Consonant with article 75 of the Solvency II directive assets are valued "at the amount for which they could be exchanged between knowledgeable willing parties in an arm's length transaction".[72] Another difference with Basel II is that the assets' balance sheet antagonists, liabilities, are not ignored but valued in a similar fashion "for the amount for which they could be transferred, or settled, between knowledgeable willing parties in an arm's length transaction".[73] In addition, when valuing the liabilities, article 75 notes that no adjustment should be made to take account of the own credit standing of the insurance undertaking.[74] This type of valuation is constant and consistent with the fair value criteria of the International Financial Reporting Standards (IFRS).[75] As such, the valuation method for assets and liabilities is compatible with international accounting developments, considered necessary to limit the administrative burden on EU insurance undertakings.[76]

An implication of using IFRS fair value criteria is that assets and liabilities are valued mark-to-market, i.e. according to their market price at the time of the valuation.[77] If readily available prices are not available, the mark-to-model valuation method can be resorted to.[78] Because both assets and liabilities are overall valued mark-to-market, the Solvency II directive takes a total balance sheet approach and intends to establish a completely economic balance sheet for insurance undertakings where there is a common valuation basis for these assets and liabilities.[79] Thus, the pillar 1 requirements of the Solvency II directive are based on "an economic total balance sheet approach".[80] Neither a total balance sheet approach nor a common valuation basis are present within pillar 1 of Basel II.[81] However, when one looks at Basel II's valuation method for market risks positions in a trading book of a bank, it can be observed that like in the Solvency II directive, mark-to-market is encouraged as much as possible.[82] Again, as in the case of Solvency II, mark-to-model valuation can only be resorted to when mark-to-market is not an option and should be employed in a prudent manner.[83]

It is peculiar how the use of market values is more prominently advocated in the Solvency II directive than Basel II. The Solvency II directive namely concerns insurance undertakings, companies for which, unlike banks, it is of great importance to establish technical provisions. The peculiarity arises as there is no market for technical provisions and therefore no market-values for the latter.[84]

Own Funds

The equivalent of Solvency II directive's rules on own funds - the available financial resources of an insurance undertaking which can serve as a buffer against risks and absorb financial losses where necessary[85] - are the rules on capital within Basel II and for that reason these are comparable to each other. Capital and own funds are important because they cover the capital requirements of both instruments.[86]

Within Basel II capital is divided into three tiers, where each tier represents a capital constituent that is comprised out of certain capital items. These capital constituents are the core capital, the supplementary capital and the (optional) short-term subordinated debt covering market risk. Core capital is represented by tier 1, the first and most important tier. Tier 1 is said mainly to consist out of equity (a value derived from deducting the costs of the liabilities from the assets) and disclosed reserves (published reserves from post-tax retained earnings). It serves as the basis for most market judgments on the adequacy of capital requirements. The other items of capital are admitted to tier 2, representing the supplementary capital which consists out of undisclosed reserves, revaluation reserves, general provisions/ general loan-loss reserves, hybrid debt capital instruments and subordinated term debt. Optionally, at the discretion of national authorities, banks can also employ a third tier capital representing short-term subordinated debt for the sole purpose of covering for market risks.[87]

Own funds in the Solvency II directive are comprised out of basic own funds and ancillary funds.[88] Consecutively, basic own funds consist out of an excess of assets over liabilities and subordinated liabilities[89] whereas ancillary own funds consist out of items other than basic own funds which can be called upon to absorb losses like letters of credit and guarantee to the extent that these other items are not basic own-fund items.[90] As in the case of Basel II, the Solvency II directive also classifies her own funds into three tiers according to their quality.[91] The classification of the own funds into tiers is however more complicated than the classification in Basel II. The classification of the own funds namely does not only depend on whether the own fund items belong to the basic own funds or the ancillary own funds but also on the extent to which they possess the characteristics and features specified in article 93 of the Solvency II directive.

The two characteristics with which the basic own funds or the ancillary own funds items need to comply in order to be classified into either of the three tiers are very similar to the characteristics necessary to a distinction made by UK's (abolished) Financial Services Authority (FSA) in its 2007 discussion paper 'Definition of Capital' between going concern and gone concern capital for banks, investment firms and building societies.[92] The two characteristics are formulated by the Solvency II directive as follows:

1. The "item is available, or can be called up on demand, to fully absorb losses on a going-concern basis, as well as in the case of winding-up (permanent availability)"[93]
2. In "the case of winding-up, the total amount of the item is available to absorb losses and the repayment of the item is refused to its holder until all other obligations, including insurance (…) obligations towards policy holders and beneficiaries of insurance (…) contracts, have been met (subordination)"[94]

Once the assessment is made to what extent basic own funds or ancillary own funds items comply with the latter characteristics, due consideration needs to be given to several features aptly mentioned. These can be concisely exemplified as the duration of the item and its sufficient duration, the absence of incentives to redeem, the absence of mandatory servicing costs and the absence of encumbrances.[95]

Therefore, taking the afore mentioned four features into account, if an own funds item possess both characteristics it is classified as tier 1, if it only possess the second characteristic it is classified as tier 2 and if it does not possess any of the two characteristics, disregarding whether it takes the four features into account or not, it is classified as tier 3.[96] And so the deduction can be made that a large resemblance exists between Basel II's tier 1 and Solvency II directive's tier 1. Both are comprised out of capital or own funds of the highest quality.[97] Apart from this resemblance of tier 1 in both instruments there is another similarity in concern to the tiers. Quantitative limits are namely set on the amounts of tier items eligible to cover capital requirements in both instruments. Since these quantitative limits relate to capital requirements they will be discussed in the next comparative chapter.

Capital Requirements

Capital requirements can be basically described as financial resources (in case, capital or own funds) which a company is required to hold by law for the risks they take to protect their consumers against potential losses as a result of business fluctuations or an insolvency.[98] They are the main instruments of banking legislation since the early 1990s.[99] Basel II sets out one simple level of capital requirement below which a bank cannot go:

"The total capital ratio must be no lower than 8%."[100] Basel II speaks of capital ratio because the latter capital requirement must be no lower than 8 per cent of a bank's risk-weighted assets - here risks inherent to liabilities are not taken into account as in the case of the capital requirements in the Solvency II directive.[101] The capital eligible for this capital requirement "is the sum of the whole of the bank's [t]ier 1 capital, plus all of its [t]ier 2 capital (…). Tier 3 capital will be regarded as eligible only if it can be used to support market risks".[102] On these capital tiers quantitative limits are set. Tier 1 requires at least 50 per cent of a bank' capital base to consist out of core capital.[103] Tier 2 capital is limited to 100 per cent of tier 1 capital.[104] And tier 3 capital is limited to 250 per cent of a bank's tier 1 capital required to provide support for market risks.[105] As with regards to risks, the risks covered by the latter total capital ratio of 8 per cent are credit risk, market risk and operational risk; specifically because the pillar 1 capital requirement is composed out of requirements stipulated in Basel II for all these three types of risks.[106]

The Solvency II directive is more stringent and contains two levels of capital requirements – the so-called two-step ladder - representing different levels of supervisory intervention. This two-step ladder consist out of the SCR and the MCR.[107] The SCR embodies "the 'desired' amount of capital ('target capital'), which can absorb losses"[108] and is supposed to "ensure accurate and timely intervention by supervisory authorities".[109] Own funds eligible for SCR are equal "to the sum of the amount of [t]ier 1, the eligible amount of [t]ier 2 and the eligible amount of [t]ier 3."[110] Where the Basel II's total capital requirement takes only three risks into account, Solvency II directive's SCR covers at least six risks: Non-life underwriting risk, life underwriting risk, health underwriting risk, 'market risk'[111], credit risk and last but not least, operational risk which includes legal risks and excludes reputation risks and risks arising from strategic decisions.[112] Incidentally, legal risk is also one of the components of operational risk in Basel II.[113] It is therefore safe to say that Solvency II directive's SCR covers both risks typically associated with insurance and banking.

The MCR, then, embodies a "minimum level of security below which the amount of resources should not fall"[114] since in such a scenario "policy holders and beneficiaries are exposed to an unacceptable level of risk were insurance (…) undertakings allowed to continue their operations".[115] In case eligible basic own funds fall below MCR and the insurance undertaking in question is unable to re-establish the amount of eligible basic own funds at the level of MCR within a short period of time, recital 69 and article 131 of the Solvency II directive prescribe "the ultimate supervisory intervention"[116], the withdrawal of its authorisation.[117] As such, the MCR is a sort of "last threshold"[118] not allowed to fall below 25 per cent of the SCR of an insurance undertaking, nor exceed 45 per cent of the SCR of an insurance undertaking.[119] Basic own funds eligible for MCR are equal "to the sum of the amount of [t]ier 1 and the eligible amount of basic own-fund items classified in [t]ier 2."[120]

The amounts of own funds tiers eligible to cover both capital requirements are subjected to quantitative limits in the Solvency II directive as well. The EU quantitative limits are again more complex than those of its international inspirational source and are not fully described in the Solvency II directive. Their more precise and detailed description can be found in the implementing measures of the Solvency II directive (Lamfalussy level 2).[121] As far as the rules in the framework directive on the first level capital requirement, the SCR, are concerned, the eligible amounts of tier 2 and tier 3 have such limits that the proportion of tier 1 items in the eligible owns funds has to be higher than one third of the total amount of eligible funds and that the eligible amount of tier 3 items is less than one third of the total amount of eligible own funds.[122] In concern to the second level capital requirement within that same framework directive, the MCR, the eligible amount of tier 2 has such a limit that the proportion of tier 1 items in the eligible basic own funds has to be higher than one half of the total amount of eligible basic owns funds.[123]

Evidently, when it comes down to capital requirements, calculations, measures and calibrations of risks are involved.[124] Within the instrument of Basel II the calculation of risk depends on the type of risk category one has dealings with. For credit risk, a bank can choose between a standard formula and the 'internal ratings-based approach[125] (IRBA); for market risk, a bank can choose between the standardised measurement method and the internal approach method; and for operational risk, a bank can choose between the basic indicator approach, the standardised approach and the advanced method approach.[126] In regards of the standard approach for the main risk for banks - credit risk - Basel II prescribes the use external credit assessments from external credit assessment institutions (ECAI) like Standard & Poor's to determine risk weights.[127]

The Solvency II directive does not calculate risks differently depending on their type of risk category as it has an integrated approach involving risk exposure calculation at the company level which allows for a reflection of the dependencies between risk categories.[128] Where its SCR can be calculated by insurance undertakings using a standard formula or an internal model[129], its MCR can be calculated in accordance with the rules in article 129. Article 129 envisions a linear function of a set or sub-set of variables, like administrative expenses and written premiums[130] and envisions implementing measures to be taken in Lamfalussy level 2 to make the calculation clearer.[131] However, even here a similarity can be spotted. Similar to Basel II, insurance undertakings are allowed to use credit rating assessments issued by ECAI's to determine risk factors necessary for the calculation of Solvency II directive's SCR standard formula.[132] This allowance cannot be found in the Solvency II directive as it is contained in Solvency II system's Lamfalussy level 2.

The SCR standard formula[133] is the sum of a Basic SCR, a capital requirement for operational risk and an adjustment for the loss-absorbing capacity of technical provisions and deferred taxes.[134] The Basic SCR in itself is comprised out of individual risk modules for non-life underwriting risk, life underwriting risk, health underwriting risk, market risk and counterparty default risk[135] which are all individually calculated as a combination of capital requirements for sub-modules that are described in greater detail in the rules of the Solvency II directive.[136] A subset of parameters contained in the design of the SCR standard formula are allowed to be replaced by parameters specific to an insurance undertaking when calculating the life, non-life and health underwriting risk modules, provided permission is granted by the competent supervisory authority.[137] For insurance undertakings faced with significantly less complex risks, typically smaller insurance undertakings, a possibility exists to choose for a simplification in the standard formula.[138] A possibility not offered by Basel II.

Competent supervisory authorities also have a possibility according to the Solvency II directive. When the risk profile of an insurance undertaking deviates significantly from the assumptions underlying the SCR standard formula calculation they can require the insurance undertaking in question to replace a subset of the parameters used in the SCR standard formula calculation with parameters specific to that insurance undertaking.[139] Furthermore, the calculation of the SCR standard formula depends on the adopted implementing measures of Lamfalussy level 2.[140] In concern to the SCR internal model a distinction is made between a full and partial model.[141] The rules to which the either modelling technique needs to comply are to be found in the Solvency II directive and within the implementing measures.[142]

Consequentially, to different extents, Basel II and the Solvency II directive (SCR) both provide the possibility to use a standard model as respectively described in both instruments or an internal model for risk assessment to calculate the capital requirements. According to GATZERT and WESKER the internal models of Basel II (excluding its assessment for credit risk[143]) and the Solvency II directive are 'principle-based'[144] and allow for an individual assessment of the risk situation specific to the company.[145] When it comes to the standard model, the instruments differ as Basel II's standard model is 'rules-based'[146] and the Solvency II directive's standard model, like its internal model, pertains to be principle-based with some deviations for certain sub-modules.[147]

If a bank or an insurance undertaking opts to use the internal model, both instruments allude to a formation of a "psychological contract"[148] between the company in question and the competent supervisory authority, the so-called use test.[149] The use test is necessary in Basel II in order for banks to be prohibited from running one calculation model for themselves and another for the competent supervisory authority.[150] It makes sure that the systems and processes used by a bank to calculate risks are consistent with their internal use by that same bank.[151]

Solvency II directive's reasoning behind the use test is similar to that of Basel II. Insurance undertakings using an internal model namely need to illustrate that their internal model is widely used, that it plays an important role in their governance system and that the frequency of the SCR calculation using the internal model corresponds with the frequency of using the internal model for their risk-management system and their economic and solvency capital assessment and allocation processes.[152] The internal model of the Solvency II directive can therefore only receive supervisory approval if it is undoubtedly embedded in the risk culture of the insurance undertaking; executive managers of insurance undertakings are not only required to use their internal model to make decisions, they need to demonstrate the usage.[153]

Turning to the measurement and calibration of risks, the Solvency II directive is more transparent than its source of inspiration. For the SCR, the directive explicitly specifies that its calibration shall correspond to the Value-at-Risk (VaR[154]) of the basic own funds of the entire insurance undertaking, subject to a confidence level of 99,5 per cent over the period of one year.[155] This implies that the SCR corresponds to economic capital to be held by an insurance undertaking "in order to ensure that ruin occurs no more often than once in 200 cases, or, alternatively, that those undertakings will be in a position, with a probability of at least 99,5 %, to meet their obligations to policy holders and beneficiaries over the following 12 months."[156] Such a small percentage of ruin (0,5 per cent) was chosen to give "reasonable assurance to policy holders and beneficiaries that payments will be made as they fall due."[157]

For the MCR, the directive also specifies that its linear function needs to be calibrated to the VaR of the basic own funds of an insurance undertaking subject to a confidence level of 85 per cent over the period of one year.[158]. Basel II principally also relies on VaR however only refers to it explicitly in the case of market risk capital requirements.[159] Unsurprisingly, risk calibration varies with the individual risk category in Basel II and is not conducted on company level: For credit risk and operational risk (the advanced method approach) a 99,9 per cent confidence level needs to be achieved and for market risk the confidence level to be achieved is set at 99 per cent.[160]

Investment

All companies, including banks and insurance undertakings, use their assets to invest in equities, bonds, cash, property, etc. to gain capital or own funds respectively, which enables them to honour their promises to their consumers.[161] Basel II does not provide rules specifically on how banks should invest their assets. In essence, according to Basel II, investment in assets is free, in the sense that a bank can choose in which assets it will invest without any direct restrictions.

The Solvency II directive also postulates freedom of investment.[162] EU Member States are not allowed to require insurance undertakings to invest in particular categories of assets nor are they allowed to subject the investment decisions of insurance undertakings and its investment managers to any kind of prior approval or systemic notification requirement.[163] In this light, any national requirements would be incompatible with EU's liberalisation of capital movements.[164] Investment in derivatives is therefore allowed in both instruments, despite "the recent disastrous experience and general distrust"[165] with this risk mitigation technique.[166] What EU Member States do have to ensure however is that investments happen according to the prudent person principle (PPP).[167] Basel II does not contain a similar principle. It relies more of the mechanisms of the self-regulating market to make sure that investments are made prudently.

Within the Solvency II directive the PPP is understood as following: "With respect to the whole portfolio of assets, insurance (…) undertakings shall only invest in assets and instruments whose risks the undertaking concerned can properly identify, measure monitor, manage, control and report, and appropriately take into account in the assessment of its overall solvency needs (…) All assets, in particular those covering the Minimum Capital Requirement and the Solvency Capital Requirement, shall be invested in such a manner as to ensure the security, quality, liquidity and profitability of the portfolio as a whole. In addition the localisation of those assets shall be such as to ensure their availability."[168] The PPP also assumes that in case a conflict of interests occurs, insurance undertakings or the entities which manage their investment portfolios, will make the investment that is in the best interest of the policy holders and beneficiaries[169] Regarding these described aspects of the PPP for investment, the European Commission is allowed to adopt implementing measures (Lamfalussy level 2).[170]

When it comes down to practice, investments turn out not be as free as both instruments describe since capital requirements are attached to investments in certain assets; capital requirements need to reflect the risk of investment in assets. Nowadays, in most capitalist systems, most companies are created to make profit on top of honouring promises made to consumers. If a company like a bank or an insurance undertaking possesses a good investment strategy, it will increase capital or own funds respectively and can even make profit. Keeping this premise in mind, it seems then logical that banks and insurance undertakings will align their investment strategy in such a manner that investment will result in the lowest possible capital requirements. The reason being that lower capital requirements allow for more financial resources to be utilized for investment in potential profit provenances. And it is in this context that the Solvency II directive in conjunction with its implementing measures – the ranking of assets into categories or classes or 'buckets'[171] with specific risk-weights is not contained in the Solvency II directive but in Lamfalussy level 2 of the Solvency II system - and its inspirational source are alike. Both instruments namely do not provide the prophesised freedom for investments in practice by requiring investments in assets with high risk-weights to be reflected in higher capital requirements.[172]

For instance, both instruments require that "the lowest amount of capital [must be held] (…) for highly-rated government bonds, relatively low capital must be held for corporate bonds with investment grade (IG) rating, medium charges are necessary for property holdings, and high risk weight and stress factors are assigned to equities and alternative investments. A detailed analysis further shows that [both instruments] agree in requiring no charge for credit/spread risks of AAA to AA-rated government bonds. Thus, apart from interest rate risks, these bonds are considered risk-free by the [BCBS and the EU legislator]."173 In addition, the Solvency II system contains rules for covered bonds, a security typical for the EU, which have no counterpart in Basel II174. Solvency II system's SCR rules, much alike the CRR, treat covered bonds preferentially (through its Market Risk Module) to other bonds and loans by assigning a lower capital allocation to investment in this particular asset class175 . Moreover, due to the gaping investment gap in existence worldwide176, the European Commission has recently decided to "remove unjustified prudential obstacles so that insurers play and important role in the European infrastructure projects"177 in the context of her Action Plan on Building a Capital Markets Union.

The meaning of this, at least for the investment rules both instruments have in common, is that Basel II and the Solvency II system incentivise banks and insurance undertakings to invest in government bonds at the cost of the private sector. Investment is still free in the literal sense of the word however has a much more restrictive meaning for those banks and insurance undertakings operating within contemporary capitalism and seeking to make a buck. It shouldn't therefore come as a surprise that in Belgium for instance, already by the end of 2011178, shares and other variable-income securities issued by private companies represented only 4,4 per cent of the balance sheet value of all the investments of insurance undertakings in contrast to the balance sheet situation at the end of 2001, when such investments represented more than 20 per cent179. Government bonds however constituted 60 per cent of the balance sheet value of all the investments of insurance undertakings at the end of 2001 in Belgium and rose to 80,2 per cent at the end of 2011.[180]

Such incentives have large implications as insurance undertakings are the largest institutional investors in the EU. Reducing the provision of private capital by insurance undertakings will not only harm companies in the EU private sector, it is also contradictory to EU's Europe 2020 strategy for economic growth, to the self-proclaiming power of the Solvency II directive of encouraging long-term investments into the real economy[181] and to the economic reality that has illustrated in recent years, on a global scale, that there is risk attached to investments in government bonds.

Furthermore, since the last financial and economic crisis, the European Commission has adapted the EU state aid framework to allow EU Member States to provide €671 billion in capital and repayable loans and €1288 billion in guarantees to banks in an attempt to prevent their collapse.[182] This financial help has caused a rise in public debt levels with the consequence of governments of Member States possessing much less capacity to finance investment and innovation projects amongst other things.[183] By incentivizing insurance undertakings to invest in government bonds, the EU legislator is therefore indirectly incentivizing insurance undertakings to contribute to the reduction of public debt levels so governments of Member States can increase investment levels themselves. Point-blank, insurance undertakings are therefore obliged to clean up the mess created by banks. One cannot help but wonder why the chickens have come to the insurance sector to roost instead of the banking sector in the EU.

Criticism of the Inspirational Source Perspectives of Basel II

The financial system of the EU can be described as predominantly bank-oriented[184] with legal rules applicable to banks operational on EU territory based on the principles provided by the BCBS. Choosing Basel II as an inspirational source for legislation applicable to insurance undertakings can therefore be seen as a reasonably natural gravitation. A gravitation that would also be sensible if Basel II would have proved to be a successful instrument for preventing the last financial and economic crisis from happening; if Basel II would have proved that its quantative and market sensitive risk management and transparency rules were capable to encourage and maintain financial stability. As a matter of fact, the financial and economic crisis in question, the largest financial and economic crisis of the last 70 years, has happened under the watch of Basel II and was not significantly connected by any means to the business of insurance undertakings.

If anything, Basel II's rules on risk management and transparency encouraged herding behaviour, the fatal ingredient for a financial sector in turmoil, just as PERSAUD had predicted.[185] Similarly, Basel II turned out not to enhance the safety and soundness of the financial system but to enhance the pro-cyclicality of lending instead[186], reinforcing the market volatility the Solvency II directive is so wary about. In part, these pro-cyclical effects of Basel II are attributed to its use of the VaR measure that is now also present in the Solvency II directive.[187] VaR is contemporarily considered a non-coherent measure given the realization that perfect and fully efficient markets only exist in theory.[188]

Moreover, without any convincing justification, there are other elements in Basel II identified as having contributed to the last financial meltdown with economic repercussions which have been imitated by the Solvency II directive. Basel II for instance prescribes banks to appeal to credit rating agencies or ECAIs for credit assessments to be used in their standard approach. These same credit rating agencies have been identified by the THE NATIONAL COMMISSION ON THE CAUSES OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES as "essential cogs in the wheels of financial destructions"[189] and as the "key enablers of the financial meltdown" [190] - the VaR method has additionally been criticized in the Financial Crisis Inquiry Report.[191] In the EU, ECAIs were not spared of such detrimental criticism either in relation to the last financial and economic crisis.[192] Hence it is rather hypocritical of the EU legislator to criticize ECAIs whilst remaining to dedicate a role for them in the EU financial system.[193] The hypocrisy especially reigns when considering how their role is now also expanded to the insurance sector through the Solvency II directive and its implementing measures.[194]

What is also hypocritical is the fact that the underlying philosophies of Basel II that have been invalidated by the last financial and economic crisis like the blind reliance on market forces and the firm belief in deregulation[195] have resurfaced in the Solvency II directive. As it stands, the Solvency II directive is an instrument of 'deregulation'[196] with its principles-based approach to rules and its preference for the insurance undertaking and its (senior) management rather than the competent supervisory authority to ensure that the company remains solvent.

Candidly, there are other important reasons why Basel II is not a sensible inspirational source for legislation like the Solvency II directive with its main objective of protecting policyholders and beneficiaries. First of all, evidence exists suggesting that Basel II's predecessor was not created to tighten the legislative framework for internationally active banks and to create and maintain international financial stability.[197] Rather, Basel I is said to be the attempt of the U.S.A., making use of its financial market power[198], to transfer "wealth from voters to commercial banks and [to] transfer (…) risk from commercial banks to voters."[199] With such a foundation it is very unlikely that Basel II and its successors will ever have consumer interests amongst its genuine priorities.

Another reason relates to the creator of Basel II. The BCBS, is renowned for its reputation of "'Olympian' detachment as guardian of public interest".[200] It is a clubby committee that has not been elected.[201] Accordingly, no obligation to promote any other interests than the common interests of the BCBS members exists for this clubby committee.[202]

With a reputation of such calibre it should not come as an unexpected revelation that Basel II is often accused of being a product of regulatory capture: Basel II "had too much input from banking sector participants and large banks in particular (...) The fact that major banks have had a strong say in devising regulations that govern their own operations is a possible indicator of regulatory capture".[203] Most probably this argument is based on valid grounds, bearing in mind that "the new capital rules [not only] allow the 'largest banks'[204] to use their own internal [risk] models for assessing risk and capital adequacy positions – which are likely to lead to the biggest banks holding less capital for regulatory purposes"[205] but also have proven to be too lax. Laxity was demonstrated as banks were in need for more and higher-quality capital than Basel II offered during and after the last financial and economic crisis.[206] Furthermore, the "IRB approach was not included in the first consultative proposal and was added later and further amended in the final version of the accord, in accordance to the lobbying activity by the banks."[207]

The BCBS's capture by the banks lay in the standard setting process used to approve Basel II. The latter procedure allowed interested parties to send their comments on the different drafts of Basel II. Although there was no lack in participation the involved stakeholders were by and large banks instead of consumers, general members of public and academics representing the public interest.[208] Also, the "notice and comment procedure followed by the [BCBS] was not codified in any document of the network; on the contrary, participation was granted on a case by case basis. As a result, this tool was mostly used by the strongest stakeholders to influence the [BCBS]".[209] The type of participation for Basel III did not change much either[210], evidencing JOHNSON and KWAK's thesis that "bankers remain firmly in control of the political-regulatory process and have successfully blocked any needed post-crisis reform and regulation".[211] A reform that perhaps, as HELLWIG suggested, would involve more than just "strengthening the players"[212] of the game by moving away from risk-calibrated capital requirements.[213]

Conclusion

The comparative analysis of part 2 has indicated that the level of imitation by the Solvency II directive of Basel II is very high; under the Solvency II directive insurance undertakings will to a large extent be quantitatively treated like banks under Basel II. The intermittent differences between the two instruments are attributable to two main reasons. First of all, the Solvency II directive is a de jure binding piece of EU legislation which intends to harmonize rather than converge and that needs to be clear, comprehensible and transparent. Secondly, even the EU legislator was necessitated to acknowledge how different insurance undertakings actually are from banks. Hence, the Solvency II directive, where absolutely necessary, is adapted to the needs of the insurance sector. Pillar 1 of the Solvency II directive particularly provides plenty of illustrations to support this observation.

Perplexingly, Solvency II directive's pillar 1 has not only been adapted to the needs of the insurance sector, it is has also been made more stringent in comparison to Basel II's pillar 1 because of its two capital requirements and the larger amount of risks these capital requirements take into account. This is at odds with the outcome of the last financial and economic crisis. Surely it is banks that need to be more stringently legislated and not insurance undertakings? Using Basel II as an inspirational source is also at odds with the objectives of the Solvency II directive as the last financial and economic crisis has managed to illustrate. Nevertheless, having observed the inadequacies of Basel II, the EU legislator has not withdrawn the Solvency II directive from the table to redesign it, using the protection of policy holders, insured persons and beneficiaries and the sole needs of the insurance sector as new inspirational sources. Neither has the EU legislator refused to implement Basel II's successor, Basel III, for EU banks and investment firms trough CRD IV and CRR.

The reason could lie in the fact that the EU legislator lacks expertise on the complex and highly technical matter of insurance. Another plausible reason could lie in the fact that the EU legislator's desire for a single financial market has burnt too strongly for sensibility. It would namely be more sensible, taking the outcome of the last financial and economic crisis into account, to reverse the imitation game and to inspire post-crisis banking legislation on international rules for insurance undertakings. Or, preferably, to revise the foundations of EU financial legislation altogether, taking the business model characteristics of each financial sector participant carefully into account. Finding an alternative to (risk-calibrated) capital requirements to protect consumers of financial services would be a good start. The question would of course arise whether the de facto powerful BCBS would tolerate such a change of course.

Whatever the reasoning, as it stands, insurance undertakings are being treated like banks in the EU to a large extent since January 2016. To abide by the legislation they are hence necessitated to act like banks. Caution is warranted: Insurance undertakings imitating banks can result in a dangerous game for policy-holders, insured persons and beneficiaries in the EU if it is allowed to continue for much longer.[214] As such, a fundamental change in of Solvency II is needed during its revision.

Acknowledgments
We are grateful to the Stewardship of Finance and Mohammad Ali Farooqui for enabling the publication of this article.

Funding Source
VUB's Stewardship of Finance Chair.

References

1. In the current article, unless otherwise indicated, insurance undertaking is synonymous with "a direct life or non-life insurance undertaking which has received authorisation in accordance with [the Solvency II directive]": Art. 13(1) Solvency II directive. And a direct life or non-life insurance undertaking which has an annual gross written income exceeding €5 million: Art. 4(1), a Solvency II directive. As such it is understood to be company "principally engaged in financial intermediation as the consequence of the pooling of risks": Annex A, point 2.60 Regulation of the Council nr. 2223/96/EC, 25 June 1996 on the European system of national and regional accounts in the Community, Pb.L. 30 November 1996, episode 310, 52 (hereinafter: ESA 95). A research of doctrine points at similar descriptions of insurance undertakings. For instance, according to BENJAMIN, insurance undertakings enter financial positions (take risks in exchange for rewards) by taking "insured risks in exchange for premium income": J. BENJAMIN, Financial Law, Oxford, Oxford University Press, 2007, 14. Notice should be taken of the fact that at the end of the day an insurance undertaking is a (financial) company.
2. COM(15)3120 [Commission document

nr, 3120 of 2015], 3; D. FOCARELLI, "Why Insurance Regulation is Crucial for Long-Term Investment and the Economic Growth" in P. MARANO and M. SIRI (eds.), Insurance Regulation in the European Union: Solvency II and Beyond, Cham, Palgrave Macmillan, 2017, 341. In 2014, insurance undertakings managed 10 trillion euo in terms of financial assets: D. FOCARELLI, "Why Insurance Regulation is Crucial for Long-Term Investment and the Economic Growth" in P. MARANO and M. SIRI (eds.), Insurance Regulation in the European Union: Solvency II and Beyond, Cham, Palgrave Macmillan, 2017, 341.Directive of the European Parliament and of the Council nr. 2009/138/EC, 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), Pb.L. 17 December 2009, episode 335, 1 (hereinafter: Solvency II directive). The Solvency II project that resulted into Solvency II directive was one of the main outstanding items from the Financial Services Action Plan (1999-2005): COM(07)361 final [Commission document n° 361 of 2007, final version], 2. This Solvency II directive is the first level of the new EU control system for the insurance business in general (the Solvency II system) which comprises 4 (,5) levels in total, correspondingly to the Lamfalussy process for the composition of EU financial legislation.

3. The scope of the current article is limited to this first level and more narrowly to the rules applying to insurance undertakings; rules esp. developed for reinsurance undertaking are here not considered. However, when necessary to make a point under the scope of the current article, reference will also be made to some of the rules of Solvency II system's level 2: Delegated Regulation of the Commission nr. 2015/35/EU, 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), Pb.L. 17 January 2015, episode 12, 1 (hereinafter: Solvency II delegated regulation).

4. In the current article, unless otherwise indicated, the latest version, the Basel II version of 2006, has mainly been consulted for making this comparison: Basel Committee on Banking Supervision, Basel II, International Convergence of Capital Measurement and Capital Standards: A Revised Framework Comprehensive Version, Basel, Bank for International Settlements, 2006, i-333 (hereinafter: Basel II). Because Basel II does not contain "articles" or "sections" as a legislative document usually does, the current article cites Basel II's page numbers when making a reference to certain passages from its content. Throughout the article, reference is also made to Basel II's predecessor and successor "Basel I" and "Basel III". Although these are not officially referred to as Basel I and Basel III these references will nevertheless be employed in the current article, unless otherwise indicated, for reasons of convenience. For those interested in an explanation on the different kinds of spelling aptly encountered, it is recommendable to consult the following monograph: G.A.WALKER, International Banking Regulation: Law, Policy and Practice, The Hague, Kluwer Law International, 2001, 41.

5. K. VAN HULLE, "Invloed van de financiële crisis op de nieuwe solvabiliteitsregeling van de (her)verzekeringsondernemingen" in C. VAN SCHOUBROECK, W. DEVROE, K. GEENS and J. STUYCK (eds.), Over Grenzen: Liber amicorum Herman Cousy, Antwerpen, Intersentia, 2011, 912; K. VAN HULLE, "Solvency II: een nieuwe solvabiliteitsregeling voor de verzekeringssector" in INSTITUUT FINANCIEEL RECHT (ed.), Van alle markten. Liber Amicorum Eddy Wymeersch, Antwerpen, Intersentia, 2008, 1028; H. COUSY, "An Outsider's View on Solvency II", REDC 2010, 109; G. O'DONOVAN, Solvency II Stakeholder Communications and Change, Surrey, Gower, 2011, 11-13; R. DOFF, "Risk Management Implementation in the Insurance Industry" in M. CRUZ (ed.), The Solvency II Handbook: Developing ERM Frameworks in Insurance and Reinsurance Companies, London, Risk Books, 2009, 6; M. CRUZ, "Introduction: A Journey to Solvency II"

in M. CRUZ (ed.), The Solvency II Handbook: Developing ERM Frameworks in Insurance and Reinsurance Companies, London, Risk Books, 2009, xxxi; F. DE WEERT, Bank and Insurance Capital Management, Chichester, Wiley, 2012, 95; P. ZWEIFEL and R. EISEN, Insurance Economics, Heidelberg, Springer, 2012, 343; E. DENTERS, "Global Financial Architecture and the Insurance Sector" in P.M. LIEDTKE and J. MONKIEWICZ, The Future of Insurance Regulation and Supervision, Basingstoke, Palgrave Macmillan, 2011, 44; H. COUSY, and M. DREESEN, "De bredere effecten van Solvency II in België", Bull.ass. 2009, 148; H. COUSY, "An Outsider's View on Solvency II", REDC 2010, 109-110; K. VAN HULLE, "Solvency II: Het einde van het begin", T.Verz. 2009, 33-34; N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 540.The policy suggestion to use Basel II as an inspirational source for the Solvency II directive originated from an outsourced investigation study conducted by KPMG: KPMG, Study into the methodologies to assess the overall position of an insurance undertaking from the perspective of prudential supervision, 2002, 242.

6. P. MARANO, "Sources and Tools of the Insurance Regulation of the European Union" in P. MARANO and M. SIRI (eds.), Insurance Regulation in the European Union: Solvency II and Beyond, Cham, Palgrave Macmillan, 2017, 354.

7. Although the Solvency II directive is a piece of EU legislation which (consequently) contains legal rules, this is not the case for Basel II. On the contrary, Basel II is an international framework containing minimum standards in the form of principles. For that reason, the terminology of rules will be employed when referring to the content of Basel II and the Solvency II directive in unison. Furthermore, unless otherwise indicated, the current article will use the words "legislation" and "law" as synonyms, referring to the predominant method of law making in a nation-state by either its government or legislator, or at the level of supranational entities such as the EU. For that reason, "legislation" should be differentiated from (mere) "supervision". Subsequently, in the current article, unless otherwise indicated, supervision is synonymous to "the process designed to oversee financial institutions in order to ensure that rules and standards are properly applied.": J. LAROSIÈRE (ed.), Report, Brussels, The High-Level Group of Financial Supervision in the EU, 2009, 13 (hereinafter: LAROSIÈRE report).Moreover, unless otherwise indicated, the terminologies of legislation and supervision will be employed instead of the more ambiguous term of regulation. The latter term could indeed be considered ambiguous because of its varying meaning in doctrine. Its meaning varies from corresponding to the synonym of legislation employed in the current article, to corresponding to both terms of legislation and supervision employed in the current article. In some cases, its meaning even corresponds to rules governing particular occupations with a force of law due to "provisions delegating legislative authority to certain professional bodies which are empowered to regulate the conduct of their members, [such as financial authorities or market participants]": G. SLAPPER and D. KELLY, English Law, Routledge, Abingdon, 2007, 39.Nevertheless, when quoting from doctrine using the term regulation, this term will still be referred to.It may hereby be noted that, in the majority of cases, the term "regulation" is (rather) used as a synonym for legislation (as used in the current article). The legislation enacted by the European legislator (primary legislation such as treaties which form the basis for all EU actions and secondary legislation, such as regulations, directives, decisions on the operation of European laws and policies, recommendations and opinions) shall maintain its regular meaning in the current article.For a (brief) discussion on the difficulties presented by terms such as legislation, supervision and regulation, see WALKER: G.A. WALKER, International Banking Regulation: Law, Policy and Practice, The Hague, Kluwer Law International, 2001, xxiii and 1.

8. Within the EU legal system the term bank

is not used as a generic term. Instead EU legislation refers to credit institutions: K. BYTTEBIER, Handboek Financieel Recht, Antwerpen, Kluwer, 2001, 344. However, because the scope of this article concerns Basel II, which itself still uses the term bank, the latter terminology will be used in the current article as well. In the current article, unless otherwise indicated, the term bank refers to “an undertaking the business of which is to take deposits or other repayable funds from the public and to grant credit for its own account”: Art. 4(1), (1) Regulation of the European Parliament and of the Council nr. 575/2013/EC, 26 June 2013 on prudential requirements for credit institutions and investment firms and amending regulation (EU) No 648/2012, Pb.L. 27 June 2013, episode 176, 18 (hereinafter: CRR). Notice should be taken of the fact that at the end of the day a bank is a (financial) company.

9. Indeed, insurance undertakings have very different business model characteristics. Both companies provide different services to make money, have different balance sheets and are faced with different types of risks. For those interested in a more elaborate exposé of the differences, see: F. DE WEERT, Bank and Insurance Capital Management, Chichester, Willey, 2012, 9-12; CEA, Insurance: A unique sector: Why insurers differ from banks, Brussels, CEA, 2010, 9-10; C. THIMANN, “How Insurers Differ from Banks: A Primer on Systemic Regulation”, LSE SRC Special Paper Series, 2014, 4-12.
10. A. BLUNDELL-WIGNALL and P. ATKINSON, “Origins of the financial crisis and requirements for reform”, J Asian Econ 2009, 544.
11. GATZERT and WESKER have pointed at an extensive list of doctrine on the comparison of Basel II and the Solvency II directive: N. GATZERT and H. GATZERT, “A Comparative Assessment of Basel II/III and Solvency II”, Geneva Pap R I-ISS P 2012, 541. The current article attempts to contribute to the mentioned doctrine, including GATZERT and WESKER’s article.
12. Because Basel II is not a piece of legislation like the Solvency II directive, these two collection of rules so to speak will be referred to in unison as instruments in the current article, unless otherwise indicated.
13. In the current article, unless otherwise indicated, the form is synonymous to the format and should be understood as the way in which the rules are presented to the world, so to speak. In a legal context this meaning is similar to the literary form of law as defined by KETCHAM: E. H. KETCHAM, “Sources and Forms of Law”, IJoE 1930, 366-367.
14. Because the comparison is conducted from a legal inclination is does not tread in any technical, actuary or insurance economical details.
15. A. TAYLOR, “What is Basel and why has it got three pillars?”, JIBFL 2004, 128.
16. DG MARTK/Amended Framework for Consultation on Solvency II/2005 [Document entitled Amended Framework for Consultation on Solvency II of Directorate-General MARKT of 2005], 2.
17. The QIS of Basel II can be accessed on the following website: www.bis.org/bcbs/qis/overview.htm. The QIS of Solvency II can be accessed on the following website: http://archive.eiopa.europa.eu/consultations/qis/insurance/index.html.
18. BASEL COMMITTEE ON BANKING SUPERVISION, Charter, Basel, 2013, 3 (hereinafter: BCBS charter).
19. BCBS charter, 1. The BCBS thus operates without any kind of formal authority, constitutions of by-laws. Its operations are based on the terms of the founding charter aptly referenced: G.A. WALKER, International Banking Regulation: Law, Policy and Practice, The Hague, Kluwer Law International, 2001, 45.
20. BCBS charter, 4.
21. http://www.bis.org/bcbs/membership.htm.
22. G.A. WALKER, International Banking Regulation: Law, Policy and Practice, The Hague, Kluwer Law International, 2001, 78.
23. BCBS charter, 5-6.
24. In the current article, unless otherwise indicated, soft law and its rules are synonymous to non-mandatory or non-binding rules. Noteworthy doctrine on the origin, possible uses and meaning of soft law, especially in the context of finance, is listed

by WALKER: G.A. WALKER, International Banking Regulation: Law, Policy and Practice, The Hague, Kluwer Law International, 2001, 2. For a more concise explanation of soft law in the field of financial law see LASTRA: R.M. LASTRA, Legal Foundations of International Monetary Stability, Oxford University Press, Oxford, 2006, 453-474.

25. M. DE BELLIS, “Global Financial Standards and Regulatory Failure: Lessons for Reforms” in G. DELLA CANANEA and A. SANDULLI (eds.), Global Standards for Public Authorities, Napoli, Editoriale Scientifica, 2012, 106-107.
26. In fact, the BCBS “is perhaps the most important example of a transgovernmental regulatory network that exercises vast powers, seemingly without any form of democratic accountability.”: M.S. BARR and G.P. MILLER, “Global Administrative Law: The View from Basel”, EJIL 2006, 17.
27. The CRDs was comprised out of the following repealed directives: Directive of the European Parliament and of the Council nr. 2006/48/EC, 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast), Pb.L. 30 June 2006, episode 177, 1 (hereinafter: Bank Capital Directive); Directive of the European Parliament and of the Council nr. 2006/49/EC, 14 June 2006 on the capital adequacy of investment firms and credit institutions (recast), Pb.L. 30 June 2006, episode 177, 201 (hereinafter: Capital Adequacy Directive).
28. The CRD IV package is comprised out the CRR and the Directive of the European Parliament and of the Council nr. 2013/36/EU, 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, Pb.L. 27 June 2013, episode 176, 338 (hereinafter: CRD IV).
29. Art. 288 TFEU.
30. Art. 288, section 3 TFEU.
31. Art. 82, section 3 Regulation EIOPA.
32. Art. 2 section 1 Regulation EIOPA.
33. Art. 1(2) Regulation EIOPA.
34. Art. 1(6) Regulation EIOPA.
35. Art. 30(1) Solvency II directive.
36. This observation may give rise to dispute when it comes to assessing risks for the capital requirements calculations (infra). In this context Gatzert and Wesker have pointed out that Basel II and to a lesser extent, the Solvency II directive, nevertheless contain detailed rules next to guiding principles. However, these rules can still be considered to take the form guiding principles for several reasons. In case of point, no matter how detailed Basel II becomes, the BCBS Members are not legally obliged to follow the details in question. As regards the Solvency II directive, detailed rules are very much exceptional and always further developed in the remaining Lamfalussy levels. Apart from rules in concern to capital requirement calculations a rather exceptional example of a detailed rule is article 4 of the Solvency II directive: M. WANDT and D. SEHRBROCK, “Legal Aspects of the Solvency II Framework Directive” in C. VAN SCHOUBROECK, W. DEVROE, K. GEENS and J. STUYCK (eds.), Over Grenzen: Liber amicorum Herman Cousy, Antwerpen, Intersentia, 2011, 931.
37. M. WANDT and D. SEHRBROCK, “Legal Aspects of the Solvency II Framework Directive” in C. VAN SCHOUBROECK, W. DEVROE, K. GEENS and J. STUYCK (eds.), Over Grenzen: Liber amicorum Herman Cousy, Antwerpen, Intersentia, 2011, 931.
38. The current article uses terms such as guiding principles and detailed rules. This terminology should be understood in the light of the distinction made by WANDT and SEHRBROCK between principles-based law and rules-based regulation. According to them, rules-based regulation is primarily governed by detailed statutes (articles) whereas principles-based law is characterized by general, vague legal terms: M. WANDT and D. SEHRBROCK, “Legal Aspects of the Solvency II Framework Directive” in C. VAN SCHOUBROECK, W. DEVROE, K. GEENS and J. STUYCK (eds.), Over Grenzen: Liber amicorum Herman Cousy, Antwerpen, Intersentia, 2011, 931.
39. A. VAN CAUWENBERGE, “De Belgische regelgeving over de financiële markten: Een evenwicht tussen ‘principles based

reguation' en 'rule based regulation'?" in INSTITUUT FINANCIEEL RECHT (ed.), Van alle markten. Liber Amicorum Eddy Wymeersch, Antwerpen, Intersentia, 2008, 895 and 909-911.

40. A. TAYLOR, "What is Basel and why has it got three pillars?", JIBFL 2004, 123. To confirm this state of affairs one does not need to look very far. Basel II's official title says more than any explanation ever will: "International Convergence of Capital Measurement and Capital Standards". Likewise, the second consideration of the Solvency II directive refers directly to harmonization when mentioning that "it is necessary to eliminate the most serious differences between the laws of the Member States as regards the rules to with insurance and reinsurance undertakings are subject.": Consideration 2 Solvency II directive.

41. A. VAN CAUWENBERGE, "De Belgische regelgeving over de financiële markten: Een evenwicht tussen 'principles based reguation' en 'rule based regulation'?" in INSTITUUT FINANCIEEL RECHT (ed.), Van alle markten. Liber Amicorum Eddy Wymeersch, Antwerpen, Intersentia, 2008, 918-919; H. COUSY, and M. DREESEN, "De bredere effecten van Solvency II in België", Bull.ass. 2009, 152. In doing so, both the European legislator and the BCBS have followed the British Financial Supervisory Authority which has introduced principles-based law in the fields of finance: A. VAN CAUWENBERGE, "De Belgische regelgeving over de financiële markten: Een evenwicht tussen 'principles based reguation' en 'rule based regulation'?" in INSTITUUT FINANCIEEL RECHT (ed.), Van alle markten. Liber Amicorum Eddy Wymeersch, Antwerpen, Intersentia, 2008, 894-895; M. WANDT and D. SEHRBROCK, "Legal Aspects of the Solvency II Framework Directive" in C. VAN SCHOUBROECK, W. DEVROE, K. GEENS and J. STUYCK (eds.), Over Grenzen: Liber amicorum Herman Cousy, Antwerpen, Intersentia, 2011, 931.

42. M. WANDT and D. SEHRBROCK, "Legal Aspects of the Solvency II Framework Directive" C. VAN SCHOUBROECK, W. DEVROE, K. GEENS and J. STUYCK (eds.), Over Grenzen: Liber amicorum Herman Cousy, Antwerpen, Intersentia, 2011, 931.

43. B.E. GUP, Banking and Financial Institutions: A Guide for Directors, Investors and Counterparties, Hoboken Wiley, 2011, 195; A. ADMATI and M. HELLWIG, The Bankers' New Clothes: What's Wrong with Banking and What to Do about It, Princeton, Princeton University Press, 2013, 96.

44. Qualitative requirements are also known as the "referee system": C. BALTALI and J. TANEGA, "Basel III: Dehybridiztion of Capital", NYU JLB 2011, 3.

45. As a policy option the European legislator has opted for an adjusted and a more harmonized Basel II three pillar approach to the Solvency II directive. The three pillars of Basel II were therefore not just copied into the Solvency II directive: SEC(07)871 [Internal document of the Secretariat-General nr. 871 of 2007], 80-85.

46. G. O'DONOVAN, Solvency II: Stakeholder Communications and Change, Farnham, Gower Publishing, 2011, 5. The European Commission currently also utilizes the pillar terminology when talking about the Solvency II directive. More precisely, the European Commission speaks of pillar 1 as the harmonised valuation and risk-based capital requirements pillar; of pillar 2 as the harmonised governance and risk management requirements; and of pillar 3 as the harmonised supervisory reporting and disclosure pillar: http://ec.europa.eu/finance/insurance/solvency/solvency2/index_en.htm#maincontentSec2.

47. Art. 1 Solvency II directive.

48. FINANCIAL SERVICES AUTHORITY, "Definition of Capital", FSA Discussion Paper 2007, 14-15.

49. Comparing objectives of the two instruments can be an extensive exercise that could provide enough information to compose an entirely new article. Since that is not the intention of the current article, to a large extent, only the main objective mentioned in the instruments are compared. The general, specific and operational objectives of the Solvency II system that have been explicated by the European Commission and

graphically organized in a so-called objectives tree will therefore not be discussed in the current article apart from the latest identified general objective and the latest identified specific objective that have emerged after the last financial and economic crisis due to their relevance to the analysis of the current article: SEC(07)871 [Internal document of the Secretariat-General nr. 871 of 2007], 14; SWD(14)308 final [Staff Working Document nr. 308 of 2014, final version], 6-7. For those who require clarity on the difference between the aptly mentioned types of objectives the following document is recommended for consultation: SEC(07)871 [Internal document of the Secretariat-General nr. 871 of 2007], 14.

50. Basel II, 2.
51. Basel II, 2.
52. Basel II, 7. GATZERT and WESKER have pointed out that apart from these main objectives of the Basel II instruments its pillar 2 and pillar three have objectives of their own: N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 556 and 562. Pillar 2 intends "to ensure that banks have adequate capital to support all the risks in their business, [and] also to encourage banks to develop and use better risk management techniques in monitoring and managing their risks.": Basel II, 204. Pillar 3 on the other hand aims to compliment pillar 1 and pillar 2 with market discipline: Basel II, 226.
53. N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 544.
54. K. VAN HULLE, "Invloed van de financiële crisis op de nieuwe solvabiliteitsregeling van de (her)verzekeringsondernemingen" in C. VAN SCHOUBROECK, W. DEVROE, K. GEENS and J. STUYCK (eds.), Over Grenzen: Liber amicorum Herman Cousy, Antwerpen, Intersentia, 2011, 912.
55. Art. 27 Solvency II directive. Yet, when looking at the Solvency II system overall, the primary main objective as identified by the European Commission is the increase of the integration of the EU insurance market in line with articles 47(2) and 55 of the Treaty of Nice (The Solvency II directive was namely finalized at the same time as the Treaty of Lisbon was finalized). Consumer protection for policyholders and beneficiaries is seen as a part of this primary main objective in line with the Commission v. Germany judgement of the Court of Justice of the European Communities (1986): SEC(07)871 [Internal document of the Secretariat-General nr. 871 of 2007], 14. This might seem as a contradiction since an integrated EU insurance market leads to more consumer choice rather that consumer protection. Some authors like FITCHEW do not see consumer choice and consumer protection as contradictory alternatives. FITCHEW believes that it is perfectly possible for consumer choice and consumer protection to coexist and even for consumer choice and protection to reinforce each other: G.F. Fitchew, "Objectives and perspectives of insurance legislation" in KATHOLIEKE UNIVERSITEIT LEUVEN CENTRUM VERZEKERINGSWETENSCHAP (ed.), Het Europa van de Verzekeringen: De richtlijnen van de derde generatie, Antwerpen, Maklu, 1992, 79. The following article about another contradiction in the context of financial services consumers is also recommendable (but falls outside the scope of the current article: H.-W. MICKLITZ, "The Paradox of Access in Financial Services for Consumers", REDC 2010, 7-26.
56. K. VAN HULLE, "Solvency II: Het einde van het begin", T. Verz. 2009, 42.
57. Art. 28, section 1 Solvency II directive.
58. Art. 28, section 2 Solvency II directive.
59. The used terminologies to describe insurance undertakings is derived from: C. THIMANN, "How Insurers Differ from Banks: A Primer on Systemic Regulation", LSE SRC Special Paper Series, 2014, 13.
60. Consideration 16 and art. 28, section 1 Solvency II directive. GATZERT and WESKER have made an interesting point about the relationship between the objectives mentioned in Solvency II directive's consideration and its articles: M. WANDT and D. SEHRBROCK, "Legal Aspects of the Solvency II Framework Directive" in C. VAN

SCHOUBROECK, W. DEVROE, K. GEENS and J. STUYCK (eds.), Over Grenzen: Liber amicorum Herman Cousy, Antwerpen, Intersentia, 2011, 926.

61. Art. 27 Solvency II directive. This argument has also been acknowledged by the European Central Bank (ECB). The ECB has namely stated that "the primary aim of Solvency II is to strengthen the protection of policyholders, while Basel II is more focused on the solvency positions of large international banks": ECB, Potential Impact of Solvency II on Financial Stability, Frankfurt am Main, ECB, 2007, 34.
62. Regulation of the European Parliament and of the Council nr. 1092/2010, 24 November 2013 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board, Pb.L. 15 December 2010, episode 331, 1 (hereinafter: ESRB regulation). The mentioned definition of financial markets can be found in article 2(b) ESRB regulation.
63. M. WANDT and D. SEHRBROCK, "Legal Aspects of the Solvency II Framework Directive" in C. VAN SCHOUBROECK, W. DEVROE, K. GEENS and J. STUYCK (eds.), Over Grenzen: Liber amicorum Herman Cousy, Antwerpen, Intersentia, 2011, 925.
64. In the current article, unless otherwise indicated, long-term investment is synonymous with "the formation of long-lived capital, covering tangible assets (such as energy, transport and communication infrastructures, industrial and service facilities, housing and climate change and eco-innovation technologies) and intangible assets (such as education and research and development) that boost innovation and competitiveness": COM(13)150 final [Commission document nr. 150 of 2013, final version], 2. Such a conceptualization essentially comes down to any investment into productive activities supporting sustainable economic growth and development to qualify as long-term investment.
65. SWD(14)308 final [Staff Working Document nr. 308 of 2014, final version], 6-7.
66. COM(10)2020 final [Commission document nr. 2020 of 2010, final version], 5.
67. COM(10)2020 final [Commission document nr. 2020 of 2010, final version], 25.
68. COM(13)150 final [Commission document nr. 150 of 2013, final version], 9; COM(14)168 final [Commission document nr. 168 of 2014, final version], 5-6. The idea of using financial actors for long-term investment needs of certain industrial sectors and the economy overall already existed in 1983: COM(83)207 final [Commission document nr. 207 of 1983, final version], 8-9.
69. A. TAYLOR, "What is Basel and why has it got three pillars?", JIBFL 2004, 125.
70. Basel II, 7.
71. N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 554.
72. Art. 75(1), a Solvency II directive.
73. Art. 75(1), b Solvency II directive.
74. Art. 75(1), section 2 Solvency II directive. This provision is an International Financial Reporting Standards (IFRS) prudential correction, necessary to prohibit an insurance undertaking with financial struggles as a result of a low credit rating, to book a revenue because the fair value of her liabilities has decreased: K. VAN HULLE, "Solvency II: een nieuwe solvabiliteitsregeling voor de verzekeringssector" in INSTITUUT FINANCIEEL RECHT (ed.), Van alle markten. Liber Amicorum Eddy Wymeersch, Antwerpen, Intersentia, 2008, 1034.
75. K. VAN HULLE, "Solvency II: een nieuwe solvabiliteitsregeling voor de verzekeringssector" in INSTITUUT FINANCIEEL RECHT (ed.), Van alle markten. Liber Amicorum Eddy Wymeersch, Antwerpen, Intersentia, 2008, 1034; N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 554.
76. Recital 46 Solvency II directive.
77. N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 554.
78. N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 554.
79. K. VAN HULLE, "Solvency II: een nieuwe solvabiliteitsregeling voor de verzekeringssector" in INSTITUUT

FINANCIEEL RECHT (ed.), Van alle markten. Liber Amicorum Eddy Wymeersch, Antwerpen, Intersentia, 2008, 1034; N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 555.

80. COM(07)361 final [Commission document nr. 361 of 2007, final version], 10. An 'economic total balance sheet approach' is an epileptic phrase to imply that Solvency II directive's pillar 1 employs a balance sheet based on accounting approaches with market-consistent values to value both assets and liabilities. In the words of the EU Commission itself, this "approach relies on an appraisal of the whole balance-sheet of insurance (…) undertakings, on an integrated basis, where assets and liabilities are valued consistently. Such an approach implies that the amount of available financial resources of insurance (…) undertakings should cover its overall financial requirements, i.e. the sum of un-subordinated liabilities and capital requirements. As a consequence of this approach, eligible own funds (…) much the higher than the Solvency Capital Requirement.": COM(07)361 final [Commission document nr. 361 of 2007, final version], 10.
81. N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 554-555.
82. N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 554.
83. Basel II, 160.
84. K. VAN HULLE, "Solvency II: een nieuwe solvabiliteitsregeling voor de verzekeringssector" in INSTITUUT FINANCIEEL RECHT (ed.), Van alle markten. Liber Amicorum Eddy Wymeersch, Antwerpen, Intersentia, 2008, 1034-135; H. COUSY and M. DREESEN, "De bredere effecten van Solvency II in België", Bull. ass. 2009, 156; H. COUSY, "An Outsider's View on Solvency II", REDC 2010, 111. VAN HULLE – in the article mentioned above (supra, footnote 87) has indicated that to combat this, technical provisions need to be valued to the sum of a best estimate and a risk margin. This rule can be found in article 77 of the Solvency II directive. Moreover, EIOPA has issued guidelines on the valuation of technical provisions. These guidelines can be found on the following website: https://eiopa.europa.eu/Publications/Guidelines/TP_Final_document_EN.pdf.
85. COM(07)361 final [Commission document nr. 361 of 2007, final version], 11.
86. Art. 100, section 1 and 129(1), b Solvency II directive; Basel II, 166; N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 549.
87. Basel II, 14-16.
88. Art. 87 Solvency II directive.
89. Art. 88 Solvency II directive.
90. Art. 89(1) Solvency II directive.
91. Art. 93(1) Solvency II directive; N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 549.
92. FINANCIAL SERVICES AUTHORITY, "Definition of Capital", FSA Discussion Paper 2007, 3-56.
93. Art. 93(1), (a) Solvency II directive.
94. Art. 93(1), (a) Solvency II directive.
95. Art. 93(2), Solvency II directive.
96. Art. 94 Solvency II directive; N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 550. It should be noted that the described classification is the main classification employed in the Solvency II directive. It is however not the only one. There is also a classification of specific insurance own funds items described in article 96 of the Solvency II directive.
97. D. LAAS and C. SIEGER, "Basel III versus Solvency II: An Analysis of Regulatory Consistency under the New Capital Standards", Working Paper on Risk Management and Insurance University of the St. Gallen University Institute of Insurance Economics 2015, 16; A. SANDSTRÖM, Handbook of Solvency for Actuaries and Risk Managers: Theory and Practice, Boca Raton, Chapman & Hall/CRC Taylor & Francis Group, 2011, 429.
98. B.T. GUP, Banking and Financial Institutions: A Guide for Directors, Investors and

Counterparties, New Jersey, John Wiley & Sons, 2011, 189; M. ALBERTI, The Solvency Margin System, Luxembourg, European Parliament, 2001, 5.

99. A. ADMATI and M. HELLWIG, The Bankers' New Clothes: What's Wrong with Banking and What to Do about It, Princeton, Princeton University Press, 2013, 95.
100. Basel II, 12. This has been altered under Basel III. Due to the newly introduction of the capital conservation buffer, Basel III can be said to head in the direction of a two-level approach: N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 549.
101. D. LAAS and C. SIEGER, "Basel III versus Solvency II: An Analysis of Regulatory Consistency under the New Capital Standards", Working Paper on Risk Management and Insurance University of the St. Gallen University Institute of Insurance Economics 2015, 12.
102. Basel II, 166.
103. Basel II, 14.
104. Basel II, 14.
105. Basel II, 16.
106. B.E. GUP, Banking and Financial Institutions: A Guide for Directors, Investors and Counterparties, Hoboken Wiley, 2011, 194-195; S. GLEESON, International Regulation of Banking. Basel II: Capital and Risk Requirements, Oxford, Oxford University Press, 2010, 44.
107. K. VAN HULLE, "Solvency II: een nieuwe solvabiliteitsregeling voor de verzekeringssector" in INSTITUUT FINANCIEEL RECHT (ed.), Van alle markten. Liber Amicorum Eddy Wymeersch, Antwerpen, Intersentia, 2008, 1035; N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 548; A. SANDSTRÖM, Handbook of Solvency for Actuaries and Risk Managers: Theory and Practice, Boca Raton, Chapman & Hall/CRC Taylor & Francis Group, 2011, 21.
108. N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 548.
109. Recital 60 Solvency II directive.
110. Art. 98(3) Solvency II directive.
111. The Solvency II directive innovates in comparison to its predecessors by taking market risk into consideration: COM(14)168 final [Commission document nr. 168 of 2014, final version], 5.
112. Art. 101(4) Solvency II directive.
113. A. TAYLOR, "What is Basel and why has it got three pillars?", JIBFL 2004, 127.
114. Recital 60 Solvency II directive.
115. Art. 129(1), b Solvency II directive.
116. A. SANDSTRÖM, Handbook of Solvency for Actuaries and Risk Managers: Theory and Practice, Boca Raton, Chapman & Hall/CRC Taylor & Francis Group, 2011, 21.
117. Recital 69 Solvency II directive.
118. N. Gatzert and H. Wesker, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 548.
119. Art. 129(3), section 1 Solvency II directive.
120. Art. 98(4) Solvency II directive.
121. Art. 99 Solvency II directive.
122. Art. 98(1) Solvency II directive.
123. Art. 98(2) Solvency II directive.
124. Of course calculations of the actual capital requirements themselves are in existence in both Basel II and the Solvency II directive as well. According to GATZERT and WESKER these calculations differ to a large extent:N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 551. Because of the technical nature of these calculations and mainly because the calculation rules that lend themselves for a comparison are present in the Solvency II delegated regulation (Lamfalussy level 2) and not in the Solvency II directive, thus falling outside the scope of the current article, they will not be discussed.
125. There are two internal ratings-based approaches. Two variations so to speak: The foundation IRB approach and the advanced IRB approach. Both of these use the bank's internal risk assessments of key risk drivers and do not rely upon external credit assessments: A. TAYLOR, "What is Basel and why has it got three pillars?", JIBFL 2004, 124-125. As a result, "banks themselves determine the exposure based on

their own estimates": D. BALLEGEER, "Basel III: The New Capital Regime for Banks", BFR 2011, 149.

126. N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 551. A more thorough and technical description of risk calculation contained in Basel II falls beyond the scope of the current article. For those who are seeking for a good explanation on the matter a segment from the following monograph is recommended: F. DE WEERT, Bank and Insurance Capital Management, Chichester, Wiley, 2012, 79-90.
127. Basel II, 19. These ECAIs need to be recognized by competent national supervisory authorities. Basel II provides criteria for recognizing ECAIs: Basel II, 27-28.
128. N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 550.
129. Art. 100, section 2 Solvency II directive. The SCR needs to be calculated at least once a year: Art. 102(1) Solvency II directive.
130. Art. 129(2) Solvency II directive.
131. Art. 129 and 130 Solvency II directive. The MCR needs to be calculated at least quarterly within a year: Art. 129(4), section 1 Solvency II directive.
132. Art. 4(1) Solvency II delegated regulation.
133. STOYANOVA and GRÜDL have argued that under the SCR standard formula, "policyholders are not always sufficiently protected since the distributional assumptions for calculating the default probability and SCR are not tailor-made and the actual insolvency risk can deviate from the regulatorily [sic] admissible risk.": R. STOYANOVA and H. GRÜDL, "Solvency II: A Driver for Mergers and Acquisitions?", Geneva Pap 2014, 435.
134. Art. 103, section 1, c Solvency II directive.
135. Art. 104(1) Solvency II directive.
136. Art. 105 Solvency II directive.
137. Art. 104(7), section 1 Solvency II directive.
138. Art. 109 Solvency II directive.
139. Art. 110 Solvency II directive.
140. Art. 111 Solvency II directive.
141. Art. 112(1) Solvency II directive.
142. Art. 112-127 Solvency II directive.
143. The assessment of credit risk in Basel II is not truly principle-based but a combination of the principle-based and rules-based approach: N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 551-552.
144. "In a rules-based approach capital requirements are based on stipulated rules": N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 551.
145. N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 551.
146. In a principle-based approach "capital requirements are calculated based on a risk-assessment by the financial institution, thereby following certain prescribed principles": N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 551.
147. N. GATZERT and H. WESKER, "A Comparative Assessment of Basel II/III and Solvency II", Geneva Pap R I-ISS P 2012, 551.
148. H. COUSY and M. DREESEN, "De bredere effecten van Solvency II in België", Bull.ass. 2009, 160 (personal translation).
149. Basel II version 2006, 98-99; Art. 120 Solvency II directive.
150. S. GLEESON, International Regulation of Banking. Basel II: Capital and Risk Requirements, Oxford, Oxford University Press, 2010, 115.
151. S. GLEESON, International Regulation of Banking. Basel II: Capital and Risk Requirements, Oxford, Oxford University Press, 2010, 115.
152. Art. 120(1) and (2) Solvency II directive.
153. G. KWATRA and S. ERASMUS, "Building Internal Models: Preparing for Solvency II", in M. CRUZ (ed.), The Solvency II Handbook: Developing ERM Frameworks in Insurance and Reinsurance Companies, London, Risk Books, 2009, 60; G. O'DONOVAN, Solvency II: Stakeholder Communications and Change, Farnham, Gower Publishing, 2011, 7. Regarding the Solvency II directive, COUSY has pointed out that meeting the use test rules is expected to be a difficult task for

insurance undertakings and their managers: ; H. COUSY, “An Outsider’s View on Solvency II”, REDC 2010, 115.

154. For an interesting account on the origins of VaR see: B. MCLEAN and J. NOCERA, All the Devils Are Here: The Hidden History of the Financial Crisis, New York, Portfolio, 2011, 52-58.
155. Art. 101(3), section 2 Solvency II directive. Within the second section of article 101(3) of the Solvency II directive it is specified that the SCR covers existing business as well as new business expected to be written over the following 12 months. Hence the time perspective of the Solvency II directive is prospective whereas Basel II employs a retrospective time perspective: N. GATZERT and H. WESKER, “A Comparative Assessment of Basel II/III and Solvency II”, Geneva Pap R I-ISS P 2012, 550.
156. Recital 64 Solvency II directive.
157. Recital 62 Solvency II directive.
158. Art, 101(1), c Solvency II directive.
159. N. GATZERT and H. WESKER, “A Comparative Assessment of Basel II/III and Solvency II”, Geneva Pap R I-ISS P 2012, 550.
160. N. GATZERT and H. WESKER, “A Comparative Assessment of Basel II/III and Solvency II”, Geneva Pap R I-ISS P 2012, 550.
161. A. SANDSTRÖM, Handbook of Solvency for Actuaries and Risk Managers: Theory and Practice, Boca Raton, Chapman & Hall/CRC Taylor & Francis Group, 2011, 131; R. AYADI and C. O’BRIEN, The Future of Insurance Regulation and Supervision in the EU: New Developments, New Challenges, Brussels, CEPS, 2006, 34. It can also be said that by investing, companies “tailor the flows of expenditure and receipts over a period of time”: A. SANDSTRÖM, Handbook of Solvency for Actuaries and Risk Managers: Theory and Practice, Boca Raton, Chapman & Hall/CRC Taylor & Francis Group, 2011, 131.
162. Art. 133 Solvency II directive.
163. Art. 133(1) and (2) Solvency II directive.
164. Recital 72 Solvency II directive.
165. H. COUSY, “An Outsider’s View on Solvency II”, REDC 2010, 112.
166. The Solvency II directive however does specify that investment in derivatives is only allowed in so far as they contribute to a reduction of risks or facilitate efficient portfolio management: Art. 132(4), section 2 Solvency II directive.
167. Art. 132 Solvency II directive. Generally speaking, a prudent person rule (PPR) in the context of insurance, states that assets should be invested in the best interest of policy holders and beneficiaries, that they should match investments and liabilities and that insurance undertaking should pay due attention to financial risks such as concentration risks. For the origins of the PPR, see: A. SANDSTRÖM, Handbook of Solvency for Actuaries and Risk Managers: Theory and Practice, Boca Raton, Chapman & Hall/CRC Taylor & Francis Group, 2011, 131.
168. Art. 132(2), section 1 and section 2 Solvency II directive.
169. Art. 132(2), section 5 Solvency II directive.
170. Art. 135 Solvency II directive.
171. The European Commission refers to classes of assets to which risk factors are assigned as buckets: SWD(14)308 final [Staff Working Document nr. 308 of 2014, final version], 8.
172. In regards of the Solvency II directive and its implementing measures the European Commission is aware of the argument that capital requirements have the ability to influence the investment behavior of insurance undertakings: COM(14)168 final [Commission document nr. 168 of 2014, final version], 5-6.
173. D. LAAS and C. SIEGER, “Basel III versus Solvency II: An Analysis of Regulatory Consistency under the New Capital Standards”, Working Paper on Risk Management and Insurance University of the St. Gallen University Institute of Insurance Economics 2015, 13. This comparison has been checked and is indeed correct. For instance, see the following rules in the instruments: Basel II, 19, 20 and 167; Art. 44(2) Solvency II delegated regulation. When both instruments talk about government bonds it seems that bonds of both the central

government (the sovereign) and the central banks are envisioned: Basel II, 19; Art. 50, section II Solvency II delegated regulation. COUSY and DREESEN have also touched upon this point in their article: H. COUSY and M. DREESEN, "De bredere effecten van Solvency II in België", Bull.ass. 2009, 157. The following year COUSY made another attempt to prove this point by asking himself the questions of "whether there is no inducement here to invest in bonds rather than in shares, and whether there is no danger for a negative influence on stock markets? Will Solvency II not have a detrimental effect on stock markets, especially in a post-crisis era, where economic actors are in need of investment [?]": H. COUSY, "An Outsider's View on Solvency II", REDC 2010, 114. MYERSON, being inspired by ADMATI and HELLWIG, has asked himself the question of how trustworthy legislators' opinion – and the opinion of the BCBS for that matter - is on prudent and safe investment. After all, following MYERSON, "we should recognize that any such attempt to codify what kinds of investments should be considered safe by regulators can itself create serious systemic risk for the entire financial system when a class of assets turns out t have been incorrectly categorized as 'safe'.": R.B. MYERSON, "Rethinking the Principles of Banking Regulation: A Review of Admati and Hellwig's Bankers' New Clothes", 2013, http://home.uchicago.edu/~rmyerson/research/newcloth.pdf, 14.

174. S. GLEESON, International Regulation of Banking. Basel II: Capital and Risk Requirements, Oxford, Oxford University Press, 2010, 35.
175. W. KÄLBERER, L. BERTALOT, P.R. CONDE and M. PAVLOVA (eds.), 2014 ECBS European Covered Bond Fact Book, Brussels, EMF and ECBS 2014, 33.
176. J. AUTHERS, "Infrastructure: Bridging the gap", FT 2015, http://www.ft.com/cms/s/0/0ac1a45e-86c8-11e5-90de-f44762bf9896.html#axzz3z33uDs7t.
177. IP(15)5731 [Commission press release nr. 5731 of 2015], 2.
178. Member States were originally asked to comply with large parts of the Solvency II directive by the 31st of October 2012: Art. 309(1), section 1 Solvency II directive. The original date for the entry into force of large parts of the Solvency II directive was set on the 1st of November 2012: Art. 311, section 2 Solvency II directive. Both dates were postponed twice: Art. 1 Directive of the European Parliament and of the Council nr. 2012/23/EU, 12 September 2012 amending Directive 2009/138/EC (Solvency II) as regards the date for its transposition and the date of its application, and the date of repeal of certain Directives, Pb.L. 14 September 2012, episode 241, 2 (hereinafter: Quick Fix I); Art. 1 Directive of the European Parliament and of the Council nr. 2013/58/EU, 11 December 2013 amending Directive 2009/138/EC (Solvency II) as regards the date for its transposition and the date of its application, and the date of repeal of certain Directives (Solvency I), Pb.L. 18 December 2013, episode 341, 1 (hereinafter: Quick Fix II). Since the first of January 2016 the Solvency II directive has completely entered into force.
179. X, "Kerncijfers en voornaamste resultaten van de Belgische verzekeringsmarkt in 2011", Assurinfo 2012, 8.
180. X, "Kerncijfers en voornaamste resultaten van de Belgische verzekeringsmarkt in 2011", Assurinfo 2012, 8.
181. Recital 1 Quick Fix II.
182. G. ADAMCZYK and B. WINDISCH, "State aid to European banks: returning to viability", Competition State aid brief 2015, 1.
183. COM(10)2020 final [Commission document nr. 2020 of 2010, final version], 21.
184. A. GIOVANNINI, C. MAYER, S. MICOSSI, C. DI NOIA, M. ONADO, M. PAGANO and A. POLO, Restarting European Long-Term Investment Finance: A Green Paper Discussion Document, London, CEPR Press, 2015, 53.
185. A. PERSAUD, "Sending the Herd Off the Cliff Edge: The Disturbing Interaction Between Herding and Market-Sensitive Risk Management Practices", J Risk Finance 2000, 60-61 and 63. PERSAUD has also warned - almost a decade before the Solvency II directive was published –

legislators for extending market-sensitive risk management rules to risk management of long-term investors such as insurance undertakings: A. PERSAUD, “Sending the Herd Off the Cliff Edge: The Disturbing Interaction Between Herding and Market-Sensitive Risk Management Practices”, J Risk Finance 2000, 64. However, unlike HELLWIG (infra, footnote 211), PERSAUD just makes an observation and does not explicitly advocate a complete abolishment of risk calibration and more specifically, risk-calibrated capital requirements.

186. G.R.D. UNDERHILL and X. ZHANG, “Setting the Rules: Private Power, Political Underpinnings, and Legitimacy in Global Monetary and Financial Governance”, Int. Aff. 2008, 547.

187. C. SCHWARZ, P.KARAKITSOS, N. MERRIMAN and W. STUDENER, “Why Accounting Matters: A Central Bank Perspective”, Account. Econ. Law 2015, 20.

188. A. BERNAY, “Prudential Consequences of Uncertainties in Risk Modelling in Insurance”, Bank Fin. 2008, 478; A. SANDSTRÖM, Handbook of Solvency for Actuaries and Risk Managers: Theory and Practice, Boca Raton, Chapman & Hall/CRC Taylor & Francis Group, 2011, 221; C. SCHWARZ, P. KRAKITSOS, N. MERRIMAN and W. STUDENER, “Why Accounting Matters: A Central Bank Perspective”, Account. Econ. Law 2015, 20. Concretely, VaR has been considered non-coherent because the aggregation of VaRs underestimates the total amount of risk: A. BERNAY, “Prudential Consequences of Uncertainties in Risk Modelling in Insurance”, Bank Fin. 2008, 478.

189. THE NATIONAL COMMISSION ON THE CAUSES OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES, The Financial Crisis Inquiry Report, Washington, The Financial Crisis Inquiry Commission (official government edition), 2011, xxv.

190. THE NATIONAL COMMISSION ON THE CAUSES OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES, The Financial Crisis Inquiry Report, Washington, The Financial Crisis Inquiry Commission (official government edition), 2011, xxv. For insurance undertakings the use of credit rating agencies cannot be too much of a good thing either. The OECD has warned of external (credit) rating agencies being able to exert an indirect pressure on insurance undertakings in need of a good rating to attract capital. This could result in insurance undertakings presenting flattering year-end results at the expense of technical provisions without the external (credit) rating agencies being able to spot the manipulation. Also, highly-rated insurance undertakings often feel encouraged to invest in riskier assets which can be dangerous as the last financial and economic crisis showed. On the other hand, a publicly downgraded rating (a reflection of the opinion of the employed credit rating agency) may unnecessary aggravate business difficulties: OECD, Assessing the Solvency of Insurance Companies, Paris, OECD, 2003, 111.

191. THE NATIONAL COMMISSION ON THE CAUSES OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES, The Financial Crisis Inquiry Report, Washington, The Financial Crisis Inquiry Commission (official government edition), 2011, 44.

192. P. DAENEN, “Credit Rating Agencies: De Zwarte Schapen van de Crisis?” in C. VAN SCHOUBROECK, W. DEVROE, K. GEENS and J. STUYCK (eds.), Over Grenzen: Liber amicorum Herman Cousy, Antwerpen, Intersentia, 2011, 855.

193. P. DAENEN, “Credit Rating Agencies: De Zwarte Schapen van de Crisis?” in C. VAN SCHOUBROECK, W. DEVROE, K. GEENDS and J. STUYCK (eds.), Over Grenzen: Liber amicorum Herman Cousy, Antwerpen, Intersentia, 2011, 864. This hypocritical situation is reminiscent of a fragment from ORWELL’s Animal Farm about Moses the raven. That is, although the protagonist pigs do not believe Moses the raven and his tales of Sugarcandy Mountain (the equivalent of human understanding of heaven) and declare these tales to be lies, they allow Moses the raven to remain on the farm with an allowance: G. ORWELL, Animal Farm,

London, Penguin Books, 1999, 67.

194. The European Commission is aware of the potential problems related to (over)relying on ECAIs in legislation such as the financial stability-threatening herding and cliff effects. As a result the European Commission has inserted provisions into the Solvency II delegated regulation as an attempt to combat such potential problems. The provisions are in line with the Financial Stability Board's (FSB) 'Principles for Reducing Reliance on CRA Rating' that were endorsed in 2010 by the G20. FSB's principles are available on the following website: www.financialstabilityboard.org/wp-content/uploads/r_101027.pdf?page_moved=1. Another interesting document in this context stems from the European Commission itself: DG MARTK/EU Action Plan to reduce reliance on Credit Rating Agency (CRA) Ratings/2015 [Staff Working Document entitled EU Action Plan to reduce reliance on Credit Rating Agency (CRA) Ratings of 2015].

195. G.R.D. UNDERHILL and X. ZHANG, "Setting the Rules: Private Power, Political Underpinnings, and Legitimacy in Global Monetary and Financial Governance", Int. Aff. 2008, 545.

196. In the context of investment, COUSY and DREESEN have also pointed out that the Solvency II directive is heading towards the highroad of deregulation: H. COUSY and M. DREESEN, "De bredere effecten van Solvency II in België", Bull.ass. 2009, 156.

197. T. OATLEY and R. NABORS, "Redistributive Cooperation: Market Failure, Wealth Transfers and the Basle Accord", IO 1998, 42 and 46.

198. T. OATLEY and R. NABORS, "Redistributive Cooperation: Market Failure, Wealth Transfers and the Basle Accord", IO 1998, 49-52.

199. T. OATLEY and R. NABORS, "Redistributive Cooperation: Market Failure, Wealth Transfers and the Basle Accord", IO 1998, 52.

200. G.R.D. UNDERHILL and X. ZHANG, "Setting the Rules: Private Power, Political Underpinnings, and Legitimacy in Global Monetary and Financial Governance", Int. Aff. 2008, 543. STIGLER is considered the first economist to have written an article (1971) on legislation with the argument that it is not designed in the public interest but with the intent to benefit the participants of the legislated business sector (industry): K.J. MEIER, The Political Economy of Regulation: The Case of Insurance, Albany, State University of New York Press, 1988, 18-19.

201. S. SOLOMON, The Confidence Game: How Unelected Central Bankers are Governing the Changed Global Economy, New York, Simon & Schuster, New York, 1995, 111-112.

202. G.A. WALKER, International Banking Regulation: Law, Policy and Practice, The Hague, Kluwer Law International, 2001, 71. Now, it is not exactly novel to point out that the interests pushed by sectors are more often than not in conflict with social missions of legislators and supervisors. In the context of Basel II specifically this has been pointed out by KANE and by HELLWIG respectively: E.J. KANE, "Basel II: A Contracting Perspective", J Finan Serv Res 2007, 48; M. HELLWIG, "Capital Regulations after the Crisis: Business as Usual?", Preprints of the Max Planck Institute for Research on Collective Goods 2010, 17. Nevertheless, it is rather novel to point out that an instrument that is supposed to be and ode to consumer protection, like the Solvency II directive, has been inspired by an instrument that places more emphasis on the invisible market forces and the wellbeing of the companies that are the objects of its control than on consumers.

203. B. CASU, C. GIRARDONE and P. MOLYNEUX, Introduction to Banking, Essex, Pearson Education, 2006, 166. According to BARR and MILLER the point of Basel II being a product of regulatory capture has also been by Wood in his monograph entitled Governing Global Banking: M.S. BARR and G.P. MILLER, "Global Administrative Law: The View from Basel", EJIL 2006, 19.

204. "Unsurprisingly, Basel II was strongly supported by the largest international banks, in the expectation that it would allow them to reduce their capital levels": P.H. VERDIER, "The Political Economy of International Financial Regulation", Ind. L. J. 2013, 1452.

205. B. CASU, C. GIRARDONE and P. MOLYNEUX, Introduction to Banking, Essex, Pearson Education, 2006, 166. Moreover, more

evidence pointing to regulatory capture in the context of the biggest banks being allowed to use their own internal risk models for assessing risk and capital adequacy positions is the fact that legislators who turned Basel II into hard law retained the power to reject the banks' measures of their own risk and to impose higher capital requirements. However, they did not do so: C.W. CALOMIRIS and S.H. HABER, Fragile by Design: The Political Origins of Banking Crises and Scarce Credit, Princeton, Princeton University Press, 2014, 266. More generally, it should not come as a surprise that rules allowing capital requirements to be based on the banks' own models for risk management can effectively reward banks underestimating their own risk by using models that allow for such a state of affairs to occur. This raises the danger of senior management deluding itself about the risks that their bank is bearing: R.B. MYERSON, "Rethinking the Principles of Banking Regulation: A Review of Admati and Hellwig's Bankers' New Clothes", 2013, http://home.uchicago.edu/~rmyerson/research/newcloth.pdf, 15.

206. M. HELLWIG, "Capital Regulations after the Crisis: Business as Usual?", Preprints of the Max Planck Institute for Research on Collective Goods 2010, 2; M. DE BELLIS, "Global Financial Standards and Regulatory Failure: Lessons for Reforms" in G. DELLA CANANEA and A. SANDULLI (eds.), Global Standards for Public Authorities, Napoli, Editoriale Scientifica, 2012, 83. Moreover, according to BALTALI and TANEGA the last financial and economic crisis "disproved the efficacy of the financial model for tier 1 capital of Basel II, which by providing the standard language for legal and regulatory regimes did not discourage, limit of prohibit excessive hybridization but rather provided an imprimatur for the issuance and trade of hybrid capital structures to the detriment of the entire global banking system.": C. BALTALI and J. TANEGA, "Basel III: Dehybridiztion of Capital", NYU JLB 2011, 4.

207. M. DE BELLIS, "Global Financial Standards and Regulatory Failure: Lessons for Reforms" in G. DELLA CANANEA and A. SANDULLI (eds.), Global Standards for Public Authorities, Napoli, Editoriale Scientifica, 2012, 82-83.

208. M. DE BELLIS, "Global Financial Standards and Regulatory Failure: Lessons for Reforms" in G. DELLA CANANEA and A. SANDULLI (eds.), Global Standards for Public Authorities, Napoli, Editoriale Scientifica, 2012, 82-83 and 103.

209. M. DE BELLIS, "Global Financial Standards and Regulatory Failure: Lessons for Reforms" in G. DELLA CANANEA and A. SANDULLI (eds.), Global Standards for Public Authorities, Napoli, Editoriale Scientifica, 2012, 83-84.

210. M. DE BELLIS, "Global Financial Standards and Regulatory Failure: Lessons for Reforms" in G. DELLA CANANEA and A. SANDULLI (eds.), Global Standards for Public Authorities, Napoli, Editoriale Scientifica, 2012, 104; A. ADMATI and M. HELLWIG, The Bankers' New Clothes: What's Wrong with Banking and What to Do about It, Princeton, Princeton University Press, 2013, 96. The adaptation of Basel III by the European legislation can therefore be drawn into question due to its lack of democratic legitimacy. Although the democratic legitimacy of the CRD IV package is an interesting inquiry it falls beyond the scope of this article. Another interesting inquiry that falls beyond the scope of this dissertation is whether the capital requirements set by Basel III are high enough. Lord TURNER, who played a major role in the creation of Basel III, has argued that the capital requirements introduced by Basel III should be set much higher: A. TURNER, Between Debt and the Devil: Money, Credit, and Fixing Global Finance, Princeton, Princeton University Press, 2016, xii and 229. In fact, ADMATI and HELLWIG have pointed out that although "'Basel III' eliminates some abuses, it fails to address the basic problem that banks can easily game the regulation. Bank's equity can still be as low as 3 percent of their total assets. It is not clear that anything would have been substantially different in the 2007-2009 crisis had Basel III already been in place.": A. ADMATI and M. HELLWIG, The Bankers' New Clothes: What's Wrong with Banking and What to Do about It,

Princeton, Princeton University Press, 2013, 96. BALTALI and TANEGA use harsher language to express their discontents with Basel III. According to them, “Basel III ratios are (at least nominally) significantly more onerous than the Basel II rules (…). In effect, Basel III more than triples the size of the capital reserves that the banks must hold against losses and sets a minimum tier 1 ratio of 8.5 per cent, compared with [Basel II’s] (…) ratio of 4 per cent. However, one should take these heightened ratios with a grain of salt since at the margin, strengthening that which amounts to almost nothing does not in itself amount to much.”: C. BALTALI and J. TANEGA, “Basel III: Dehybridiztion of Capital”, NYU JLB 2011, 3 (personally added underlineation).

211. M.H. WOLFSON and G.A. EPSTEIN (eds.), The Handbook of the Political Economy of Financial Crises, New York, Oxford University Press, 2013, 417; M. HELLWIG, Capital Regulation after the Crisis: Business as usual?, Bonn, Max Planck Institute on Collective Goods, 2010, 8; P.H. VERDIER, “The Political Economy of International Financial Regulation”, Ind. L. J. 2013, 1429.

212. A. PERSAUD, “Sending the Herd Off the Cliff Edge: The Disturbing Interaction Between Herding and Market-Sensitive Risk Management Practices”, J Risk Finance 2000, 60. “Is it really enough to tighten a screw here and put in a new nail there?”: M. HELLWIG, “Capital Regulations after the Crisis: Business as Usual?”, Preprints of the Max Planck Institute for Research on Collective Goods 2010, 2. Such was the metaphor used by HELLWIG to convey the same point as PERSAUD. PERSAUD’s metaphor has nevertheless been favored in the current article as it fits its context better.

213. M. HELLWIG, “Capital Regulations after the Crisis: Business as Usual?”, Preprints of the Max Planck Institute for Research on Collective Goods 2010, 11.

214. The Solvency II directive (and the Solvency II system overall) might therefore not be as good a news as MCCREEVY initially thought. The latter Commissioner namely said that the Solvency II system is “good news for consumers”: IP(07)1060 [Commission press release nr. 1060 of 2007], 1.