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## Capital adequacy regulation of financial conglomerates in the European Union

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Y. EMILIE YOO

## Capital Adequacy Regulation of Financial Conglomerates in the European Union

Institute for Monetary and Financial Stability  
JOHANN WOLFGANG GOETHE-UNIVERSITÄT FRANKFURT AM MAIN

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WORKING PAPER SERIES No. 37 (2010)

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## INTRODUCTION

Over the past few decades, changes in market conditions such as globalisation and deregulation of financial markets as well as product innovation and technical advancements have induced financial institutions<sup>1</sup> to expand their business activities beyond their traditional boundaries and to engage in cross-sectoral operations.<sup>2</sup> As combining different sectoral businesses offers opportunities for operational synergies and diversification benefits, financial groups comprising banks<sup>3</sup>, insurance undertakings and/or investment firms, usually referred to as *financial conglomerates*, have rapidly emerged, providing a wide range of services and products in distinct financial sectors and oftentimes in different geographic locations.<sup>4</sup> In the European Union (EU), financial conglomerates have become part of the biggest and most active financial market participants in recent years.<sup>5</sup>

Financial conglomerates generally pose new problems for financial authorities as they can raise new risks and exacerbate existing ones.<sup>6</sup> In particular, their cross-sectoral business activities can involve prudentially substantial risks such as the risk of regulatory arbitrage and contagion risk arising from intra-group transactions. Moreover, the generally large size of financial conglomerates as well as the high complexity and interconnectedness of their corporate structures and risk exposures can entail substantial systemic risk and can therefore threaten the stability of the financial system as a whole.<sup>7</sup>

Until a few years ago, there was no supervisory framework in place which addressed a financial conglomerate in its entirety as a group. Instead, each group entity within a financial conglomerate was subject to the supervisory rules of its pertinent sector only. Such silo supervisory approach had the drawback of not taking account of risks which arise or aggravate at the group level. It also failed to consider how the risks from different business lines within the group interrelate with each other and affect the group as a whole. In order to address this lack of group-wide prudential supervision of financial conglomerates, the European legislator adopted the Financial Conglomerates Directive 2002/87/EC<sup>8</sup> ('FCD') on 16 December 2002. The FCD was transposed into national law in the member states of the EU ('Member States') by 11 August 2004 for application to financial years beginning on 1 January 2005 and after.

The FCD primarily aims at supplementing the existing sectoral directives to address the additional risks of concentration, contagion and complexity presented by financial conglomerates. It therefore provides for a supervisory framework, which is applicable in addition to the sectoral supervision. Most importantly, the FCD has introduced additional capital requirements at the conglomerate level so as to prevent the multiple use of the same capital by different group entities.

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<sup>1</sup> The term *financial institution* employed in this paper, unless explicitly defined otherwise, refers to all institutions that provide financial services and products, including banks, insurance undertakings and investment firms.

<sup>2</sup> Tripartite Group (1995), para. 26; Joint Forum (2001a), p. 5; BoJ (2005), p. 5.

<sup>3</sup> The terms *bank* and *credit institution* are used interchangeably in this paper.

<sup>4</sup> Tripartite Group (1995), paras. 26-27.

<sup>5</sup> From 2001 to 2005, the market share of financial conglomerates increased from 57 % to 69 %. Market in this context is composed of the balance sheet totals of the largest 25 banks, insurance undertakings and financial conglomerates in the EU (source: Schilder (2007), p. 3). In 2009, financial conglomerates represented approximately 70 % of the banking and insurance businesses in the EU (source: Patrick Brady, Chairman of the Joint Committee on Financial Conglomerates, speech held at the High Level Conference "Towards a new supervisory architecture in Europe" on 7 May 2009 in Brussels).

<sup>6</sup> Tripartite Group (1995), para. 29; European Commission (2001), explanatory note, p. 2; Walker (2001), p. 176.

<sup>7</sup> In particular, the 2007-2009 crisis has demonstrated that the failure or financial difficulties of financial conglomerates (e.g. Fortis, ING, AIG, Citigroup) can pose a systemic risk or externality to the entire financial system.

<sup>8</sup> Directive 2002/87/EC of the European Parliament and of the Council of 16 December 2002 on the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate and amending Council Directives 73/239/EEC, 79/267/EEC, 92/49/EEC, 92/96/EEC, 93/6/EEC and 93/22/EEC, and Directives 98/78/EC and 2000/12/EC of the European Parliament and of the Council, OJ L 035, 11.02.2003, pp. 1-27.

This paper seeks to examine to what extent the FCD provides for an adequate capital regulation of financial conglomerates in the EU while taking into account the underlying sectoral capital requirements and the inherent risks associated with financial conglomerates.

In Part 1, the definition and the basic corporate models of financial conglomerates will be presented (I), followed by an illustration of the core motives behind the phenomenon of financial conglomeration (II) and an overview of the development of the supervision over financial conglomerates in the EU (III).

Part 2 begins with a brief elaboration on the role of regulatory capital (I) and gives a general overview of the EU capital requirements applicable to banks and insurance undertakings respectively. A delineation of the commonalities and differences of the banking and the insurance capital requirements will be provided (II). It continues to further examine the need for a group-wide capital regulation of financial conglomerates and analyses the adequacy of the FCD capital requirements. In this context, the technical advice rendered by the *Joint Committee on Financial Conglomerates* (JCFC)<sup>9</sup> as well as the currently ongoing legislative reforms at the EU level will be discussed (III). The paper finally closes with a conclusion and an outlook on remaining open issues (IV).

## PART 1: FINANCIAL CONGLOMERATES IN THE EU

In search of new business opportunities and operational synergies, financial institutions have increasingly pursued a cross-sectoral business strategy in the past, materialising the benefits of a one-stop shopping for financial services and creating more convenience for consumers.

There are various ways of accomplishing cross-sectoral business expansions. Financial institutions can opt for mere cooperation or collaboration with non-related companies by entering into cross-selling agreements or by forming a strategic alliance. Alternatively, they can embed the new business operation into their own corporate structure and exert control over it. The commercial motives and objectives behind a cross-sectoral business strategy can be achieved by diverse forms of alliance, depending on the preferred structural set-up and the desired level of synergy. However, only the second form of alliance, which puts cross-sectoral activities under common corporate control, results in financial conglomeration and is therefore of supervisory relevance.

### I. What is a financial conglomerate?

A *financial conglomerate* is generally defined as “any group of companies under common control whose exclusive or predominant activities consist of providing significant services in at least two different financial sectors (banking, securities, insurance)”.<sup>10</sup> According to this definition, even the slightest activity in at least two sectors would classify a financial group as a financial conglomerate. For European prudential purposes, the definition of a financial conglomerate is more restrictive than the above definition.

#### 1. Definition under the Financial Conglomerates Directive

Article 2(14) FCD defines a *financial conglomerate* as a group which meets the following conditions:

- (a) at least one *regulated entity* in the EU must be present in the group;
- (b) if the *group* is headed by a regulated entity, it must either be the parent of, hold a participation in, or be linked through a horizontal group with an entity in the financial sector;

<sup>9</sup> Formerly known as the *Interim Working Committee on Financial Conglomerates* (IWCF). The IWCF was renamed as JCFC, effective from 29 January 2009, European Commission Decisions 2009/78/EC and 2009/79/EC.

<sup>10</sup> Tripartite Group (1995), para. 36.

- (c) if the group is not headed by a regulated entity, the group's activities must occur *mainly* in the financial sector;
- (d) the group comprises at least one insurance undertaking and at least one entity within the banking or the investment services sectors;
- (e) the consolidated and/or aggregated activities of the entities in the group within the insurance sector and those of the entities in the banking and the investment services sector are both *significant*.

As regards (a), a *regulated entity* means a credit institution, an insurance undertaking or an investment firm (Article 2(4) FCD). The supplementary nature of the FCD requires at least one sectorally regulated entity.

As regards (b), a *group* is a set of undertakings, which consists of a parent undertaking, its subsidiaries and the entities in which the parent undertaking or its subsidiaries hold a participation<sup>11</sup> as well as undertakings linked through a horizontal relation<sup>12</sup> (Article 2(12) FCD).

As regards (c), a group's activities occur *mainly* in the financial sector if more than 40 percent of the aggregated or consolidated balance sheet total of the entire group is attributable to the regulated or non-regulated financial sector entities (Article 3(1) FCD). Financial sector in this case comprises the banking, insurance and investment services sectors.

As regards (d), only two sectors are considered for the assessment of cross-sectoral activities, namely the insurance sector and the banking/investment services sector. Mere bank-investment firms thus do not qualify as a financial conglomerate as consolidated supervision of banking and investment services under one roof is already applied under banking supervision. It is not a prerequisite that the group holds a regulated entity in each sector.

As regards (e), the activities in each financial sector must be respectively *significant*. The banking sector and the investment services sector are considered to be one financial sector in this context. There are two quantitative criteria at hand to determine the said significance:

The activities of a group are significant if the average of the ratio of both the balance sheet total and the solvency requirements of each financial sector entity in the group exceeds 10 percent of the balance sheet total and the solvency requirements of all financial sector entities in the group (Article 3(2) FCD).

Alternatively, cross-sectoral activities are presumed to be significant if the balance sheet total of the smallest financial sector entity in the group exceeds EUR 6 billion (Article 3(3) FCD). However, in case the first relative quantitative criterion is not met but the second absolute quantitative criterion (the EUR 6 billion threshold) is fulfilled, the relevant competent authorities<sup>13</sup> may decide not to regard the group as a financial conglomerate if they believe that the inclusion of the group in the scope of the FCD is not necessary or would be inappropriate or misleading with respect to the objectives of the FCD while taking into account the size and the market share of the smallest financial sector of the concerned financial group (Article 3(3) FCD).

Further, the relevant competent authorities may replace the second quantitative criterion pertaining to the balance sheet total with the income structure and/or the off-balance sheet activities of a group in an exceptional case and by common agreement if they believe that these parameters are of particular relevance for the purposes of supplementary supervision (Article 3(5)

<sup>11</sup> *Participation* (Article 2(11) FCD) means the ownership, direct or by way of control, of at least 20% of the voting rights or capital of an undertaking or of less than 20% if there is a *durable link* as defined in the Fourth Council Directive (78/660/EEC) of 25 July 1978 on the annual accounts of certain types of companies.

<sup>12</sup> As defined in Article 2(12) FCD by reference to Article 12(1) of the Seventh Council Directive (83/349/EEC) of 13 June 1983 on consolidated accounts.

<sup>13</sup> Defined in Article 2(17) FCD.



FCD). The FCD neither provides for a definition of the term *income structure*<sup>14</sup> nor suggests any criteria that could justify an exceptional case and hence gives some leeway in interpretation to the national authorities.

The classification of a group as a financial conglomerate is conducted by the competent authorities in accordance with the process of identification laid down in Article 4(1) FCD. Following the identification process, the relevant group is subsequently notified of the decision through the notification procedure in Article 4(2) FCD. The notification is considered to be an administrative act which generates legal consequences for the concerned group and against which recourse by the group is deemed admissible.<sup>15</sup> Once a group has been identified as a financial conglomerate, the ratios for the threshold calculations concerning the criteria *mainly* and *significant* are slightly reduced and a three-year view is taken in order to avoid sudden regime shifts (Article 3(6) FCD).

## **2. Basic corporate structures of financial conglomerates**

There are three basic corporate structures according to which financial conglomerates can be organised, namely the *parent-subsidiary* structure, the *holding company* structure and the *horizontal group* structure.<sup>16</sup> In reality, financial conglomerates assume a much more complex corporate structure, which often contains a mixture of the basic structures. The high degree of complexity, which is largely driven by tax, legal and regulatory concerns, seems inevitable for financial conglomerates, in particular as their legal and managerial structures have to support large scale business activities across sectoral boundaries and frequently across national borders.<sup>17</sup>

### **2.1. Parent-subsidiary structure**

In a parent-subsidiary structure, the parent company is put at the top level and holds one or more subsidiaries. The sectorally distinct business activities are legally and operationally separated and put at different corporate levels within the group. This model leads to legal separation and the separate capitalisation of group entities. The economic benefits can be limited as the separation between the distinct business fields can impede the full realisation of potential synergies and possibly cause agency problems which can arise from different management teams and ownership structures.<sup>18</sup>

The legal separation allows the parent company to protect its assets from attempts to seek recourse by creditors of financially troubled subsidiaries. In practice, however, the parent company may abstain from exploiting the advantages of the structural separation to the full extent. Subsidiaries are often fully integrated into the group without a proper identity of their own and may not be perceived as a separate entity in the market. This perception is generally corroborated by practices such as the use of consolidated financial statements or the use of a single brand name. In consideration of such circumstances, the parent company may still decide to cover for its subsidiaries' liabilities in order to avoid any negative effects on the group's overall reputation or on other economically relevant items (e.g. future market-funding opportunities).<sup>19</sup>

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<sup>14</sup> The MTG defines *income structure* as referring to "the relative share of each financial sector in the composition of a group's total income according to its profit and loss account for a particular financial year" - an interpretation which is binding for all Member States - and deems the use of *net income* appropriate, see MTG (2005), item 21, p. 9.

<sup>15</sup> MTG (2005), item 26, pp. 11-12.

<sup>16</sup> Article 2(14)(b) FCD.

<sup>17</sup> Tripartite Group (1995), paras. 77-79.

<sup>18</sup> Dierick (2004), p. 18; Half (2002), p. 5.

<sup>19</sup> Dierick (2004), p. 18.

## **2.2. Holding company structure**

The holding company structure involves a top company (holding company) which controls a number of entities without its own engagement in operational activities. The holding company primarily manages common group functions such as risk management, capital raising and allocation, IT, and group auditing at the top level. Business operations are carried out by legally distinct entities which are held by the holding company. Each group entity has its own management team and capital. The core difference to the parent-subsidary structure lies in the fact that there is no direct capital linkage amongst the operational group entities but only an indirect connection through the common holding company (potentially unregulated).<sup>20</sup> Hence, in contrast to the parent-subsidary structure where the profits of the subsidiary accrue directly to the parent and the parent's investment in the subsidiary is an asset accessible to the parent's creditors, none of the group entities held by the holding company has direct access to the profits or assets of the other group entities.<sup>21</sup> Financial problems in one group entity therefore do not affect other members of the group and present a lesser threat to the solvency of the group as a whole.<sup>22</sup> The holding company structure is conducive to the group's overall financial solidity and offers a higher degree of asset protection than the parent-subsidary structure. But again, the advantages of the formal separation may be overridden by other practical concerns, which have already been indicated in the context of the parent-subsidary structure.

## **2.3. Horizontal group structure**

Under the FCD, a group of corporate entities can still be classified as a financial conglomerate without any kind of direct or indirect capital linkage if they are either (i) managed on a unified basis pursuant to a contract or provisions in a memorandum or articles of association or if (ii) the administrative, management or supervisory bodies of the entities consist for the major part of the same persons in office. This corporate structure is referred to as the horizontal group structure and has been explicitly provided for in Article 2(14)(b) of the FCD, which in turn refers to the definition of the (horizontal) relationship in Article 12(1) of the Seventh Council Directive (83/349/EEC) on consolidated accounts<sup>23</sup>.

## **II. Motives for financial conglomeration**

New trends and developments in the financial industry over the past few decades have blurred traditional functional distinctions amongst financial institutions and created an ever more competitive environment. Against this backdrop, financial institutions have discovered and strived for the financial and commercial benefits that financial conglomeration can entail.<sup>24</sup>

One of the main economic benefits represents the possibility to capture potential economies of scale and scope and to realise operational synergies.<sup>25</sup> Financial conglomerates typically show a high level of complementarity between the products and the services offered by the distinct entities within the group, an economic advantage which often lacks in their industrial and commercial counterparts and which can be considered as a significant element characterising financial conglomerates.<sup>26</sup> A financial conglomerate that combines different sectoral businesses under one roof can make use of a wider distribution network and extensive infrastructures (e.g. back office,

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<sup>20</sup> Dierick (2004), p. 18.

<sup>21</sup> Dierick (2004), p. 18.

<sup>22</sup> See also Half (2002), p. 6.

<sup>23</sup> Seventh Council Directive (83/349/EEC) of 13 June 1983 based on the Article 54 (3) (g) of the Treaty on consolidated accounts, OJ L 193, 18.07.1983, pp. 1-17.

<sup>24</sup> Herring/Santomero (1990), p. 471.

<sup>25</sup> Walker (2001), p. 176; Mälkönen (2004a), p. 34.

<sup>26</sup> Maycock (1986), p. 2.

trading platform, IT departments) to achieve cost and revenue synergies across business lines.<sup>27</sup> The combination of sectorally different financial services allows cross-marketing and cross-selling of products and services. It offers opportunities to broaden an institution's traditional product range and customer base while fostering a higher level of innovation in product and service.<sup>28</sup> A source of higher operational efficiency can be seen in information advantages, which allow financial conglomerates to offer a broader set of information-relevant services to their clients by reusing relevant client information in different business sectors.<sup>29</sup> Consumers of today expect from a financial institution such as their house bank to take care of most, if not all, of their financial needs and are willing to pay more for one-stop shopping. Induced by this demand in the market, financial institutions are more than eager to become "financial supermarkets", offering banking, investment and insurance products altogether.<sup>30</sup> Conglomeration enables to gather a wide array of products and to offer great convenience to consumers. It is an important strategic aspect in strengthening customer loyalty.<sup>31</sup> Additionally, conglomeration generally results in the increase in size and in market capitalisation which allows financial institutions to secure their market position and discourage unsolicited take-over attempts.

Another major driving force behind the phenomenon of financial conglomeration can be found in potential diversification benefits. Financial conglomerates can generally attain a high degree of diversification in revenues and risks as they can distribute their operational activities into different financial sectors. Spreading the risks and reducing earnings volatility can in turn reduce the probability of financial distress and the need for external financing.<sup>32</sup> The fact that banking, insurance and investment business activities and risk profiles are significantly different may encourage financial conglomerates to engage in cross-sectoral risk transfers to tap the full potential of diversification benefits.<sup>33</sup> There may be strong financial incentives for such groups to book certain transactions in one group entity rather than in another upon the analysis of the costs and benefits of cross-sectoral risk transfers, which can be motivated by legal and tax considerations as well as accounting conventions. Cross-sectoral risk transfers can, however, also be motivated so as to exploit regulatory lacuna resulting from different sectoral capital regimes which is to (unterbinden) be prevented by an adequate capital regulation of financial conglomerates.

Despite the aforementioned benefits, however, it needs to be born in mind that the use of a conglomerate business structure also creates a number of problems, in particular relating to management autonomy, corporate transparency and conflict of interests. Moreover, conglomeration can also exacerbate existing and create new financial and legal risks.<sup>34</sup>

### **III. Regulation and supervision of financial conglomerates**

Financial institutions play a major role as intermediaries in the efficient allocation of capital and in providing the market with sufficient liquidity, which are vital for a well-functioning economy.<sup>35</sup> The fundamental need for regulating and supervising such institutions is undisputed, reasoned by the necessity to protect consumers and creditors and given the high impact financial institutions can have on the stability of the financial system as a whole. They are therefore amongst the most heavily

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<sup>27</sup> Mälkönen (2004b), p. 7.

<sup>28</sup> Walker (2001), p. 176.

<sup>29</sup> Mälkönen (2004a), p. 34.

<sup>30</sup> FDIC Consumer News Spring 2001, <http://www.fdic.gov/CONSUMERS/consumer/news/cnspr01/cvrstry.html>.

<sup>31</sup> Warth (2003), p. 410.

<sup>32</sup> Dierick (2004), p. 4.

<sup>33</sup> Joint Forum (2001c), p. 6.

<sup>34</sup> Walker (2001), p. 176.

<sup>35</sup> Kremers/Schoenmaker/Wierts (2003), p. 228.

regulated and tightly supervised entities.<sup>36</sup> The concerns about systemic risks and financial stability are highest in respect of the banking sector due to its strong linkage with the macro-economy.<sup>37</sup> As the banking sector is particularly sensitive to fluctuations in confidence of market participants, a lax supervision would inter alia increase the risk of a bank run and thereby facilitate the outbreak of financial crises.<sup>38</sup> An effective regulation and supervision of insurance undertakings as well as investment firms is also essential as these institutions channel household savings into the financial markets and the real economy.<sup>39</sup>

Financial regulation and supervision has traditionally developed separately for each financial sector, the banking, insurance and investment services sectors. Historically, financial conglomerates have been supervised solely along single business lines.<sup>40</sup> The idea of subjecting financial conglomerates to a special prudential regime had been criticised in the past when the mainstream economic policy was dominated by the idea of deregulation and minimisation of regulatory burden in order to enhance competition and to support national economic goals.<sup>41</sup> In recent years, however, a widespread consensus among practitioners and academics has developed that an effective supervision of financial conglomerates requires a group-wide perspective in addition to the sectoral supervision of single business lines, notwithstanding the fundamental importance of the latter.<sup>42</sup> In particular, such comprehensive view is considered vital in respect of an adequate level of capital as it allows supervisors to make a realistic assessment of a group's overall risks and its capital coverage.<sup>43</sup> In addition, it is considered essential to devise consistent rules across different sectors while leaving no gaps for regulatory arbitrage and to foster an effective exchange of information and close cooperation between financial supervisors across sectors as well as across borders.<sup>44</sup>

In 2000, the European Commission observed that the lack of a prudential framework applicable to financial conglomerates as a group hampered an effective supervision over such groups; while certain types of financial groups were not captured by existing legislation (*underlaps*), inconsistencies occurred in the treatment of similar prudential questions by sectoral legislation and the same financial group could be subject to multiple directives (*overlaps*).<sup>45</sup> Against this backdrop, the FCD was adopted in 2002, introducing a supplementary group-wide supervision of financial conglomerates. Prior to the FCD, financial group supervision only existed vis-à-vis homogeneous financial groups. The transposition of the FCD provisions into national law in the EU presents worldwide the first comprehensive implementation of a supplementary supervisory framework applicable to financial conglomerates.<sup>46</sup> It has to a large extent been inspired by the work of the *Tripartite Group of Bank, Securities and Insurance Regulators* (Tripartite Group)<sup>47</sup> and the *Joint*

<sup>36</sup> Mishkin/Eakins (2009), p. 395.

<sup>37</sup> Joint Forum (2001b), para. 38.

<sup>38</sup> Domestic banking crises can easily produce international spill-over-effects due to the ever increasing interlinkages between national financial systems while the interconnectedness of sectoral businesses and the blurred sectoral boundaries in the financial industry can intensify cross-sectoral spill-over effects.

<sup>39</sup> European Commission (2007), explanatory memorandum, p. 2.

<sup>40</sup> Joint Forum (2001c), p. 46.

<sup>41</sup> Cf. Filipova (2006), pp. 27-28, footnotes 17-18 for further references.

<sup>42</sup> Tripartite Group (1995), para. 42; European Commission (2000), pp. 8-10; Walker (2001), p. 217; Jackson (2005), p. 124.

<sup>43</sup> Tripartite Group (1995), paras. 43-44; Oliver, Wyman & Company (2001), p. 12.

<sup>44</sup> Schilder (2007); Crockett (2001), Part III.

<sup>45</sup> European Commission (2000), p. 9.

<sup>46</sup> European Commission, [http://ec.europa.eu/internal\\_market/financial-conglomerates/index\\_en.htm](http://ec.europa.eu/internal_market/financial-conglomerates/index_en.htm).

<sup>47</sup> The formation of the Tripartite Group in 1993 was driven by concerns about the growth of financial conglomerates. The Tripartite Group consisted of banking, insurance and securities regulators who met to identify the regulatory and supervisory challenges in respect of the rapid growth of financial conglomerates. In 1996, the Group was superseded by the Joint Forum.

*Forum*<sup>48</sup> and is based on internationally agreed recommendations on supervision of financial conglomerates.

In substance, the FCD provides for additional capital requirements for financial conglomerates and prescribes group-wide risk management processes and internal control mechanisms. It further subjects intra-group transactions and risk concentrations of financial conglomerates to supplementary supervision and promotes a closer coordination and cooperation between national authorities.

Procedurally, the FCD was “born” in the context of the Financial Services Action Plan (FSAP), which has been developed in order to establish a competitive and integrated financial services market in the EU.<sup>49</sup> The FCD follows the Lamfalussy procedure<sup>50</sup>, which constitutes a legislative technique adopted for legislations relating to financial markets, and sets the framework principles for the supervision of financial conglomerates (so-called “level 1” of the Lamfalussy procedure). The implementing technical measures in regard to the FCD need to be adopted by the European Commission after consultation with national representatives in the *European Financial Conglomerates Committee* (EFCC) (so-called “level 2” of the Lamfalussy procedure).

To present, the European Commission has called for technical advice from the JCFC (the former IWCFC) on three occasions. The first call for technical advice<sup>51</sup> dates back to 12 June 2007 and deals with the capital adequacy of financial conglomerates. The JCFC produced three reports in response to this call, which will be discussed in greater detail below in Part 2, III, 3 of this paper. The second call for technical advice of 12 June 2007 concerns the extent to which the conglomerate supervision arrangements of the Swiss and the US financial authorities are likely to achieve the objectives of the FCD.<sup>52</sup> The third call for advice was transmitted to the JCFC in April 2008 and concerns the effectiveness of the FCD in the light of its objectives, the Member States’ practices of the FCD and the compatibility of the FCD with the underlying sectoral rules.<sup>53</sup> In response, the JCFC published its final advice on 30 October 2009.<sup>54</sup> On the basis of this last advice, the European Commission plans to propose legislative amendments to the FCD which are expected in the course of this year.

## PART 2: CAPITAL ADEQUACY REGULATION OF FINANCIAL CONGLOMERATES IN THE EU

Capital adequacy regulation of financial institutions, to wit having a framework in place on how financial institutions must manage their own funds, has traditionally been the most fundamental form of regulating financial activities.<sup>55</sup> It is the main tool for financial authorities to ensure the soundness and safety of financial institutions and to safeguard the viability of the financial system.<sup>56</sup>

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<sup>48</sup> The Joint Forum was established in 1996 under the aegis of the Basel Committee on Banking Supervision (BCBS), the International Organization of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS) and is comprised of an equal number of senior bank, insurance and securities supervisors representing each supervisory constituency. It was initially referred to as “The Joint Forum on Financial Conglomerates” but its name was shortened to “The Joint Forum” in 1999 when its new mandate was extended to issues of common interest to all three sectors beyond financial conglomerates.

<sup>49</sup> European Commission (1999), p. 21.

<sup>50</sup> See “Final report of the committee of wise men on regulation of European securities markets” (also referred to as “The Lamfalussy Report”), published on February 15, 2001.

<sup>51</sup> [http://ec.europa.eu/internal\\_market/financial-conglomerates/docs/20070612\\_iwcfc-sectoral\\_en.pdf](http://ec.europa.eu/internal_market/financial-conglomerates/docs/20070612_iwcfc-sectoral_en.pdf).

<sup>52</sup> [http://ec.europa.eu/internal\\_market/financial-conglomerates/docs/20070612\\_iwcfc-supervision\\_en.pdf](http://ec.europa.eu/internal_market/financial-conglomerates/docs/20070612_iwcfc-supervision_en.pdf).

<sup>53</sup> [http://ec.europa.eu/internal\\_market/financial-conglomerates/docs/200804-cfa\\_en.pdf](http://ec.europa.eu/internal_market/financial-conglomerates/docs/200804-cfa_en.pdf);

[http://ec.europa.eu/internal\\_market/financial-conglomerates/docs/iwc\\_add\\_advice\\_en.pdf](http://ec.europa.eu/internal_market/financial-conglomerates/docs/iwc_add_advice_en.pdf).

<sup>54</sup> <http://www.c-ebs.org/documents/Publications/Advice/2009/FCD-advice/JCFC-advice-on-FCD-Review-FINAL.aspx>.  
<sup>55</sup> Scott (2008), para. 7-001.

<sup>56</sup> Deutsche Bundesbank (2002), p. 40; Crouhy/Galai/Mark (2006), p. 71.

As prudential oversight has traditionally developed on a sectoral basis, each financial sector provides for its own set of capital requirements. Each regulated entity within a financial conglomerate is thus first and foremost subject to its own sectoral capital requirements on a stand-alone basis. However, such sectoral approach fails to capture the risks which may accrue or intensify at the group level of a financial conglomerate. It is therefore necessary to specially regulate the capital of financial conglomerates in a way that all relevant risks will be covered and losses can be absorbed at both the individual and the group level.

This part briefly elaborates on the role of regulatory capital (I) before outlining the minimum capital requirements of the banking and the insurance sectors at the EU level (II). Further, it depicts the main reasons as to why a group-wide capital regulation of financial conglomerates is required, followed by an adequacy test of the FCD's capital rules (III). Finally, a conclusion and an outlook on remaining issues in respect of an adequate capital regulation of financial conglomerates will be presented (IV).

## I. Role of regulatory capital

Unlike non-financial firms, financial institutions are required to hold a certain minimum amount of capital by law, which is designated as *regulatory capital*. While banks, insurance undertakings and investment firms are each subject to very different regulatory capital requirements, the fundamental objective and function of capital adequacy regulation remain identical for all sectors. Capital regulation primarily aims at achieving an adequate protection of creditors by ensuring the continuity and the solvency of financial institutions.<sup>57</sup> The financial solidity of institutions in turn can promote financial stability and fair and stable markets.

Regulatory capital provides a buffer against losses, which are not covered by a sufficient volume of profits and serves as a safety net for a variety of risks related to the business.<sup>58</sup> At the same time, it serves as an important yardstick for supervisors and the market to assess the financial and prudential safety and soundness of a financial institution.<sup>59</sup> An adequate level of capital buffer is important to creditors as it can reduce the risk that a financial institution will fail upon an unexpected loss. Moreover, it is also important to society where the firm is a bank because the failure of banks can result in the loss of economically valuable relationships, investments or knowledge.<sup>60</sup> It is also argued that a principle role of regulatory capital is to contain risk taking.<sup>61</sup> The level of regulatory capital is determined by the risk positions of each institution.<sup>62</sup> Key components for maximising the effectiveness of capital adequacy regulation have been identified to be a risk-sensitive regulatory framework and enhanced risk management of financial institutions.<sup>63</sup>

Regulatory capital is to be distinguished from the notion of *economic capital*. The concept of economic capital is generally used internally by the institutions and refers to the funds that individual financial institutions consider necessary for managing their business operations in the light of

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<sup>57</sup> Capital Adequacy Directive (2006/49/EC), p. 202, recital 12; Solvency II Directive (2009/138/EC) (2009/138/EC), p. 3, recitals 16 and 17; see also Section 10 (1) of the German Banking Act: "*in order to meet their obligations to their creditors, and particularly in order to safeguard the assets entrusted to them, institutions must have adequate own funds*".

<sup>58</sup> Capital Adequacy Directive (2006/49/EC), p. 202, recital 12; Solvency II Directive (2009/138/EC) (2009/138/EC), p. 7, recital 62.

<sup>59</sup> Capital Adequacy Directive (2006/49/EC), p. 202, recital 12.

<sup>60</sup> Tarullo (2008), p. 16.

<sup>61</sup> See Tarullo (2008), pp. 16 and 17 for a discussion and further references with regard to this proposition. Some have contested this view and claimed that capital requirements may under certain circumstances increase risk taking. However, it seems that nowadays regulators and many academics accept that well-conceived capital requirements will generally discourage undue risk-taking by regulated entities.

<sup>62</sup> Greuning/Brajovic Bratanovic (2003), p. 102; Doff (2007), p. 6 and p. 20.

<sup>63</sup> European Commission, [http://ec.europa.eu/internal\\_market/bank/regcapital/index\\_en.htm](http://ec.europa.eu/internal_market/bank/regcapital/index_en.htm).

prudent risk management and is shaped by the subjective judgments of the managers.<sup>64</sup> Regulatory and economic capital can differ with regard to the measurement and quantification of risks as well as in respect of the relationship between the risk measure and the required amount of capital. It is the goal of financial authorities to bring regulatory capital into line with economic capital<sup>65</sup>, in particular as the gap between those two may create undesirable capital arbitrage opportunities.<sup>66</sup>

## II. Sectoral capital regulation

Against the backdrop of the tradition of universal banking, the European legislator has harmonised the capital requirements for banks and investment firms, which are laid down in the Capital Requirements Directive ('CRD'). The CRD comprises the Banking Directive (2006/48/EC)<sup>67</sup> and the Capital Adequacy Directive (2006/49/EC)<sup>68</sup>. The provisions of the CRD have been implemented into national law and are applicable in the Member States since 1 January 2007. The harmonisation of the capital requirements for banks and investment firms has mainly been driven by the aim of ensuring competitive neutrality between non-bank investment firms on the one hand and universal banks on the other hand, the latter being subject to stringent capital requirements with its engagements in banking and investment activities.<sup>69</sup> As the current EU capital regulatory framework for banks and investment firms are identical and given the practical importance of the combination of banking and insurance businesses in the EU, the following chapter will solely focus on banks and insurance undertakings.<sup>70</sup>

### 1. Banking sector

The EU capital regulatory framework for banks is laid down in the CRD. It has undergone substantial changes in the past few years as a result of the adoption of the "Basel II International Convergence of Capital Measurement and Capital Standards" ('Basel II') by the CRD. Basel II is a framework comprising internationally developed comprehensive measures and minimum standards for capital adequacy of banks. It was developed by the *Basel Committee on Banking Supervision* (BCBS)<sup>71</sup> and released in June 2004. The CRD is sufficiently consistent with Basel II to be considered equivalent to it.<sup>72</sup>

Basel II was preceded by the "Basel Capital Accord of 1988" ('Basel I'), which served as the basis for the banking directives in the EU prior to Basel II.<sup>73</sup> Basel I had introduced for the first time

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<sup>64</sup> Deutsche Bundesbank (2002), p. 40; CEPS Task Force Report (2008), p. 19.

<sup>65</sup> This is a declared objective of "Basel II - International Convergence of Capital Measurement and Capital Standards", <http://www.bis.org/publ/bcbs128.pdf?noframes=1>.

<sup>66</sup> Deutsche Bundesbank (2002), p. 45; Doff (2007), pp. 19-20.

<sup>67</sup> Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast), OJ L 177, 30.6.2006, pp. 1-200.

<sup>68</sup> Directive 2006/49/EC of the European Parliament and of the Council of 14 June 2006 on the capital adequacy of investment firms and credit institutions (recast), OJ L 177, 30.6.2006, pp. 201-255.

<sup>69</sup> In contrast to the EU approach, the USA and Japan apply distinct capital regimes for banks and investment firms.

<sup>70</sup> As the sectoral capital adequacy requirements serve as the foundation on top of which the FCD is based on, this chapter appears indispensable and aims at contributing to a better understanding of the supplementary capital adequacy requirements of the FCD. However, delving too deeply into the technical details of the sectoral rules would go beyond the scope of this paper. Therefore, this chapter aims at depicting the main concept and the core rules of the sectoral capital regimes and at highlighting the main sectoral commonalities and differences.

<sup>71</sup> The BCBS was established as a standing committee of the central bank governors of the G-10 countries in 1974. Today, the committee includes 27 different countries that are represented by their central bank and financial authorities in charge of prudential supervision of banking business. The committee does not possess any formal supranational supervisory authority but formulates broad supervisory standards and guidelines and recommends statements of best practice.

<sup>72</sup> Banking Directive (2006/48/EC), p. 4, recital (37).

<sup>73</sup> Basel I served as a basis for the Council Directive 89/647/EEC of 18 December 1989 on a solvency ratio for credit institutions (OJ L 386, 30.12.1989, pp. 14-22) and the Council Directive 89/299/EEC of 17 April 1989 on the own funds of credit institutions (OJ L 124, 5.5.1989, p. 16-20).

minimum capital standards for internationally active banks with the aim of strengthening the soundness and stability of the international banking system and establishing a level playing field at the global level. While Basel I solely focused on setting quantitative minimum capital standards, Basel II has introduced a three pillar system for bank capital regulation. The first pillar stipulates minimum capital requirements covering credit risk, operational risk and market risk and introduces improved techniques for risk measurements. The second pillar embraces a supervisory review process, which encourages supervisors to assess the internal approaches to capital allocation and capital adequacy of banks and aims at covering external factors and risks that are not (fully) taken into account under the first pillar. The third pillar deals with market discipline and reinforces the first two pillars by requiring banks to publish certain information related to their risks, capital and risk management. Basel II constitutes a move from purely quantitative minimum capital standards to a combined quantitative and qualitative supervisory approach.

The European Commission has recently put forward a revision to the CRD with the aim of addressing the shortcomings in the current capital regulatory framework, as have been identified during the 2007-2009 financial crisis.<sup>74</sup> On 1 October 2008, the European Commission adopted a proposal<sup>75</sup> for a directive ('CRD II Review') amending the CRD in certain key areas, including *capital requirements, liquidity risk management, home-host supervisory issues and crisis arrangements*, as have been prompted by the financial market crisis, but also including amendments in areas which had been "left open" at the time of the CRD adoption such as the *large exposures regime, derogations for bank networks from prudential requirements and the treatment of hybrid capital instruments within original own funds*. The proposed amendments have been adopted<sup>76</sup> and need to be implemented into national law by 31 October 2010 for application as of 31 December 2010. On 13 July 2009, the European Commission proposed further amendments to the CRD ('CRD III (Summer) Review') which addresses the risks linked to two major causes of the recent financial crisis, namely securitisation and remuneration.<sup>77</sup> This proposal contains amendments with regard to *capital requirements for the trading book and re-securitisations, disclosure of securitisation exposures, and remuneration*. The pertinent legislative procedure is currently still ongoing.<sup>78</sup> Finally, the European Commission carried out a public consultation from 24 July 2009 to 4 September 2009 with the aim of proposing anew further amendments to the CRD ('CRD IV Review') relating to *through-the-cycle expected loss provisioning, specific incremental capital requirements for residential mortgages denominated in a foreign currency, and the removal of national options and discretions*. Hence, numerous legislative changes to the CRD are expected in the near future.

### 1.1. Business activities and risk exposures

As an adequate capital base serves as a buffer against risks resulting from an institution's business activities, the review of the capital adequacy regime requires an understanding of the traditional business activities and the underlying risk profiles of the institution. The following stylised

<sup>74</sup> See EBC Info-letter, Issue 1 (September 2009) for an overview of the current regulatory developments in the EU, available at: [http://ec.europa.eu/internal\\_market/bank/ebc/index\\_en.htm](http://ec.europa.eu/internal_market/bank/ebc/index_en.htm).

<sup>75</sup> European Commission, "Proposal for a directive of the European Parliament and of the Council amending Directives 2006/48/EC and 2006/49/EC as regards banks affiliated to central institutions, certain own funds items, large exposures, supervisory arrangements, and crisis management", COM (2008) 602 final, 1 October 2008; European Commission (2008), Accompanying document to the Proposal, SEC(2008) 2533, p. 2.

<sup>76</sup> Directive 2009/111/EC of the European Parliament and of the Council of 16 September 2009 amending Directives 2006/48/EC, 2006/49/EC and 2007/64/EC as regards banks affiliated to central institutions, certain own funds items, large exposures, supervisory arrangements, and crisis management, OJ L 302, 17.11.2009, pp. 97-119.

<sup>77</sup> European Commission, "Proposal for a directive of the European Parliament and of the Council amending Directives 2006/48/EC and 2006/49/EC as regards capital requirements for the trading book and for re-securitisations, and the supervisory review of remuneration policies", COM/2009/0362 final, 13 July 2009.

<sup>78</sup> <http://www.europarl.europa.eu/oeil/FindByProcnum.do?lang=2&procnum=COD/2009/0099>.



balance sheet of a bank illustrates the core business activities of banks and the major risks that they typically face:

**Stylised balance sheet: Bank**

ASSETS		LIABILITIES	
ASSET CLASS	%	LIABILITY CLASS	%
Cash and cash equivalents	0.8	Inter-bank borrowing (deposits)	10.1
Inter-bank lending	12.4	Customer deposits	60.4
Securities	8.5	Debt securities	10.9
Loans and advances to customers		Other liabilities	4.6
Gross loan amounts	69.0		
Loan loss reserves	(0.8)		
Loans net of reserves	68.2		
Prepayments and accrued income	1.9	Accruals and deferred income	2.8
Tangible and intangible fixed assets	3.4	Loss reserves for liabilities and charges	1.2
Other assets	4.8	Subordinated debt	4.5
		Total shareholder equity	5.5
<b>TOTAL ASSETS</b>	<b>100</b>	<b>TOTAL LIABILITIES</b>	<b>100</b>

Figure 1<sup>79</sup>

It can be deduced from the above that banks mainly engage in granting loans and extending credits. The majority of a bank's assets consists of loans and other credit exposures, which are primarily funded by deposits collected from customers and other banks. The risks resulting from those business activities that could seriously threaten a bank's continued solvency are typically *credit risk*, *operational risk* and *market risk*. Furthermore, banks also face *funding liquidity risk* resulting from the structure of the balance sheets, which often contain significant amounts of short-term liabilities and relatively illiquid assets.<sup>80</sup>

*Credit risk* is the risk that a change in the credit quality of counterparties will affect the value of a security or a portfolio.<sup>81</sup> Credit risk has traditionally been the most important category of risk in the banking sector as it is inherent to the principle lending activities of banks. Banks also often provide off-balance sheet credits or engage in other forms of off-balance sheet lending commitments, which may constitute as much as half of their total assets, further underscoring the importance of credit risk.<sup>82</sup>

*Operational risk* relates to a bank's overall organisation and functioning of internal systems.<sup>83</sup> It refers to potential losses resulting from e.g. inadequate (technology-related) systems, failed compliance with bank policies and procedures, management failure, faulty controls, fraud and human error.<sup>84</sup> The coverage of operational risk has only been introduced recently in the EU capital regulatory framework through the adoption of Basel II.

*Market risk* is the risk that changes in financial market prices and rates will reduce the value of a security or a portfolio.<sup>85</sup> It mainly encompasses *interest rate risks* and *currency risks*. The coverage of market risks by regulatory capital was introduced through an amendment of Basel I in 1996. The current capital framework only covers the market risk in the trading book.

*Funding liquidity risk* is the current or prospective risk arising from an institution's inability to meet its liabilities/obligations as they come due without incurring unacceptable losses.<sup>86</sup> Banks are particularly vulnerable to this type of risk as they finance many illiquid long-term assets (mostly loans) with short-term liabilities (inter-bank and customer deposits), which are vulnerable to a "run" in case of a drop in confidence.<sup>87</sup> Funding liquidity risk can be mitigated by diversifying funding sources,

<sup>79</sup> Joint Forum (2001c), Annex 2.

<sup>80</sup> Joint Forum (2001c), p. 11.

<sup>81</sup> Crouhy/Galai/Mark (2006), p. 29.

<sup>82</sup> Joint Forum (2001c), p. 10.

<sup>83</sup> Crouhy/Galai/Mark (2006), p. 30.

<sup>84</sup> Greuning/Brajovic Bratanovic (2003), p. 3.

<sup>85</sup> Crouhy/Galai/Mark (2006), p. 27.

<sup>86</sup> CEBS (2008b), para. 15.

<sup>87</sup> Joint Forum (2001c), p. 19.

holding a buffer of highly liquid assets, and setting credit lines in place and monitoring buying power<sup>88, 89</sup>. Until recently, the CRD had not specified how to adequately manage liquidity risk. As the recent financial market turmoil has particularly highlighted the importance of liquidity risk as a key determinant of the soundness of the banking system, the European legislator has adopted an amendment to the CRD on 6 May 2009 (CRD II Review) providing an appropriate level of liquidity buffer and a proper incentive for banks to better understand their liquidity risk profile.<sup>90</sup> The newly introduced provisions largely build on the work conducted by the *Committee of European Banking Supervisors* (CEBS) and the BCBS to develop sound principles for liquidity risk management.<sup>91</sup>

## 1.2. Sectoral capital requirements

Under the current EU capital regulatory framework, banks must quantify their credit risk, operational risk and market risk and back them with adequate capital. The CRD has adopted a more modern and precise measurement of risks in comparison to the formerly applicable risk-weight system based on Basel I. Basel I defined regulatory capital in two tiers, core capital (tier 1) and supplementary capital (tier 2), and was mainly geared towards assessing capital in relation to credit risk.<sup>92</sup> It required the risk-weighting of assets and set the target ratio of capital to weighted risk assets at 8 %, of which the core capital needed to be at least 4 %.<sup>93</sup> The risk-weighted assets of a bank used to be computed by multiplying the outstanding credits of the concerned bank by five defined risk weights – 0, 10, 20, 50 and 100 %.<sup>94</sup> The risk weights used to be fixed and assigned on the basis of the classification of borrowers, irrespective of the individual borrower's actual default risk.<sup>95</sup> This simplified approach to risk-weighting had the drawback of not being sufficiently risk sensitive as the standardised degrees of credit risk exposure did not adequately account for the borrowers' actual default risks.<sup>96</sup> Moreover, assigning the same risk weight to all risks of a certain category of credit<sup>97</sup> could lead to a major distortion when such credits covered a wide range of risks, as reflected in credit ratings of public companies.<sup>98</sup>

In response to the shortcomings of Basel I, the CRD (based on Basel II) focuses on aligning the capital requirements more closely to the underlying risks. The minimum solvency ratio of 8 % has remained unchanged and is calculated as follows:

$$\frac{\text{Capital}}{\text{Sum of credit risk-weighted assets} + (\text{capital charges for market risk} + \text{operational risk}) \times 12.5} \geq 8 \%$$

Figure 2<sup>99</sup>

According to the nature of items constituting regulatory capital, the CRD distinguishes between *original own funds* on the one hand and *additional own funds* on the other. In addition,

<sup>88</sup> *Buying power* refers to the amount that a trading counterparty can borrow against assets under stressed market conditions.

<sup>89</sup> Crouhy/Galai/Mark (2006), p. 30; Joint Forum (2001c), p. 19.

<sup>90</sup> See amended legislative text of Annex V and XI of the Banking Directive (2006/48/EC); European Commission (2008), pp. 37-38.

<sup>91</sup> CEBS (2008b) and BCBS (2008).

<sup>92</sup> Basel I (1988), paras. 14 and 31. In 1996, Basel I was amended so as to account for market risk.

<sup>93</sup> Basel I (1988), para. 44.

<sup>94</sup> Basel I (1988), para. 29.

<sup>95</sup> The detailed weighting structure is set out in Annexes 2 and 3 of Basel I (1988). For instance, claims on OECD central governments were attributed a risk weight of 0 % and claims on OECD incorporated banks a risk weight of 20 %.

<sup>96</sup> CEPS Task Force Report (2008), p. 18.

<sup>97</sup> For instance, all private credits used to be risk-weighted at 100 %.

<sup>98</sup> Scott (2008), para. 7-013.

<sup>99</sup> [www.bundesbank.de/bankenaufsicht/bankenaufsicht\\_base1\\_saeule1.en.php](http://www.bundesbank.de/bankenaufsicht/bankenaufsicht_base1_saeule1.en.php).

banks can use *ancillary own funds* to cover market risk. *Original own funds* (tier 1<sup>100</sup>) are of the highest quality and permanence and mainly comprise paid-up capital, reserves and funds for general banking risks.<sup>101</sup> These funds represent the strongest elements of regulatory capital, providing the highest capacity to absorb losses without any limits to their use for regulatory purposes, and are the basis on which most market judgments of capital adequacy are made. In order to qualify for this form of capital, funds must be (i) issued and fully paid-in, (ii) permanent, (iii) available to fully absorb losses on a going-concern basis and under stress and (iv) provide the institution with full discretion as to the amount and timing of distributions.<sup>102</sup> *Additional own funds* (tier 2) are of lower quality and less permanent nature than original own funds. They include e. g. revaluation reserves, value adjustments and subordinated term debt.<sup>103</sup> In order to reflect the lower quality of additional own funds, Article 66 Banking Directive (2006/48/EC) sets limits for the admissible amount of additional own funds in relation to the amount of original own funds. *Ancillary own funds* (tier 3) constitute the lowest level of capital and can solely be used to support market risk. They include for instance net profit from trading book positions and subordinated loan capital.<sup>104</sup>

There are two methods banks can apply to compute the level of their regulatory capital in relation to credit risks. First, banks can apply the Standardised Approach<sup>105</sup> which requires them to depend on external rating agencies, recognised by supervisors, to award risk scores to outstanding claims. Claims can generally be given a risk-weight of 0 %, 20 %, 50 %, 100 % or 150 % contingent upon their external ratings.<sup>106</sup> Secondly, banks can apply the Internal Rating-Based (IRB) Approach<sup>107</sup>, which allows them to depend on their own risk measurement. There are two variations of the IRB Approach, the Basic IRB Approach and the Advanced IRB Approach. The IRB Approach comprises four risk parameters for the calculation of regulatory capital which is determined as the product of “exposure at default” (EAD) and the result of the risk-weight function involving the parameters “probability of default” (PD), “loss given default” (LGD) and “effective maturity” (M). In using the Basic IRB Approach, banks only need to estimate the PD of their borrowers internally while the LGD, EAD and M are determined by the competent supervisors and depend on the type of product and the collateral posted. Under the Advanced IRB Approach, banks can use their own internal assessment for all four risk parameters.

As regards group supervision, the CRD applies consolidated supervision to banking groups<sup>108</sup> that are headed by a credit institution (*parent credit institution in a Member State* or *EU parent credit institution*)<sup>109</sup>, which has a credit institution or a financial institution<sup>110</sup> as a subsidiary<sup>111</sup> or holds a participation<sup>112</sup> in such an institution and which is not a subsidiary of another credit institution or of a

<sup>100</sup> Market participants generally refer to *tiers* of regulatory capital. The *tier* terminology is used in connection with the Basel capital framework and slightly differs from the terminology used in the CRD. See Annex 1 of CEBS (2006) for a corresponding table for the different terminologies of Basel II and the CRD.

<sup>101</sup> Article 57(a) to (ca) Banking Directive (2006/48/EC).

<sup>102</sup> CEBS (2006), p. 10, para. 7; Article 61 Banking Directive (2006/48/EC).

<sup>103</sup> Article 57 (d) to (h) Banking Directive (2006/48/EC).

<sup>104</sup> Article 13(2) Capital Adequacy Directive (2006/49/EC).

<sup>105</sup> Articles 78 to 83 Banking Directive (2006/48/EC).

<sup>106</sup> Unrated claims are given a risk weight of 100 % with an exception for banks where unrated claims are given a risk weight of 50 %.

<sup>107</sup> Articles 84 to 89 Banking Directive (2006/48/EC).

<sup>108</sup> Consolidated supervision also applies to groups that include investment firms.

<sup>109</sup> See Article 4(14) and (16) Banking Directive (2006/48/EC) for definition.

<sup>110</sup> *Financial institution* in this case refers to an undertaking other than a credit institution, the principal activity of which is to acquire holdings or to carry on one or more of the activities listed in numbers 2-12 of Annex I of the Banking Directive, see Article 4 (5) Banking Directive (2006/48/EC).

<sup>111</sup> See Article 4(13) Banking Directive (2006/48/EC) for definition.

<sup>112</sup> *Participations* are (i) rights in the capital of other undertakings which by creating a “durable link” with those undertakings are intended to contribute to the company’s activities or (ii) the ownership, direct or indirect, of 20

financial holding company.<sup>113</sup> In addition, subject to a consolidated supervision are groups that are headed by a financial holding company (*parent financial holding company in a Member State or EU parent financial holding company*)<sup>114</sup> whose subsidiaries are either exclusively or mainly credit institutions or financial institutions while at least one subsidiary must be a credit institution.<sup>115</sup> Only credit institutions that are part of a group are subject to supervision on a consolidated basis. Non-credit institutions are neither subject to consolidated supervision nor subject to supervision on a stand-alone basis but they may be required to supply information that is relevant for the consolidated supervision.<sup>116</sup> Consolidated group supervision is carried out on the basis of consolidated accounts of group members with regard to the calculation of own funds but also applies in areas relating to e.g. lending limits, restrictions on investments by credit institutions in the non-bank sector.<sup>117</sup>

## 2. Insurance sector

The EU regulatory capital requirements for insurance undertakings, more commonly referred to as solvency margin requirements, were introduced in the 1970s through the adoption of the First Non-Life Directive (73/239/EEC)<sup>118</sup> and the First Life Directive (79/267/EEC)<sup>119</sup>. The current solvency margin requirements are laid down in the First Non-Life Directive (73/239/EEC), as amended by the Second Non-Life Directive (88/357/EEC)<sup>120</sup> and the Third Non-Life Directive (92/49/EEC)<sup>121</sup>, and the Recast Life Directive (2002/83/EC)<sup>122</sup>, which is the consolidated act of three former life insurance directives<sup>123</sup>. In addition, the Insurance Group Directive (98/78/EC)<sup>124</sup> applies to insurance groups.

The EU solvency margin requirements were subject to a limited overhaul in 2002, which is known as the Solvency I review.<sup>125</sup> During the Solvency I review work, it became apparent that the solvency regime for insurance undertakings required a more fundamental and wider ranging review. The regime in place was considered to be outdated as it was insufficiently risk-sensitive and superseded by changes in the industry and by international and cross-sectoral developments. It was also criticised for not dealing properly with group supervision and leaving too much leeway to Member States for national variations.<sup>126</sup> Many Member States had implemented their own reforms in the insurance sector in the meantime, which had led to a patchwork of regulatory requirements

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percent or more of the voting rights or capital of another undertaking, see Article 4(10) Banking Directive (2006/48/EC).

<sup>113</sup> Article 125(1) Banking Directive (2006/48/EC).

<sup>114</sup> See Article 4(15) and (17) Banking Directive (2006/48/EC) for definition.

<sup>115</sup> Article 125(2) Banking Directive (2006/48/EC).

<sup>116</sup> Article 127(3) Banking Directive (2006/48/EC).

<sup>117</sup> Gruson (2004), p. 4.

<sup>118</sup> First Council Directive 73/239/EEC of 24 July 1973 on the coordination of laws, regulations and administrative provisions relating to the taking-up and pursuit of the business of direct insurance other than life assurance, OJ L 228, 16.08.1973, pp. 3-19.

<sup>119</sup> First Council Directive 79/267/EEC of 5 March 1979 on the coordination of laws, regulations and administrative provisions relating to the taking up and pursuit of the business of direct life assurance, OJ L 63, 13.03.1979, pp. 1-18.

<sup>120</sup> Second Council Directive 88/357/EEC of 22 June 1988 on the coordination of laws, regulations and administrative provisions relating to direct insurance other than life assurance and laying down provisions to facilitate the effective exercise of freedom to provide services and amending Directive 73/239/EEC, OJ L 172, 04.07.1988, pp. 1-14.

<sup>121</sup> Council Directive 92/49/EEC of 18 June 1992 on the coordination of laws, regulations and administrative provisions relating to direct insurance other than life assurance and amending Directives 73/239/EEC and 88/357/EEC (third non-life insurance Directive), OJ L 228, 11.08.1992, pp. 1-23.

<sup>122</sup> Directive 2002/83/EC of the European Parliament and of the Council of 5 November 2002 concerning life assurance, OJ L 345, 19.12.2002, pp. 1-51.

<sup>123</sup> The First Life Directive (79/267/EEC), the Second Life Directive (90/619/EEC), and the Third Life Directive (92/96/EEC).

<sup>124</sup> Directive 98/78/EC of the European Parliament and of the Council of 27 October 1998 on the supplementary supervision of insurance undertakings in an insurance group, OJ L 330, 05.12.1998, pp. 1-12.

<sup>125</sup> The solvency provisions in the Recast Life Directive and the First Non-life Directive were amended by two directives in 2002, Directive 2002/13/EC and Directive 2002/12/EC.

<sup>126</sup> European Commission (2007), Explanatory memorandum, p. 2.

across the EU. The European legislator therefore initiated a major overhaul of the insurance solvency framework with the aim of introducing a harmonised regime which would better reflect the developments in prudential standards, actuarial science and risk management.<sup>127</sup> This major overhaul is referred to as the Solvency II review and envisages a more sophisticated economic risk-based approach to solvency margin requirements. It is based on a three pillar structure similar to the Basel II framework. The first pillar consists of quantitative solvency margin requirements, the second pillar sets out requirements for the governance and risk management of insurance undertakings while the third pillar focuses on disclosure and transparency requirements. The Solvency II review resulted in the Solvency II Directive (2009/138/EC) (2009/138/EC)<sup>128</sup>. The provisions of the Solvency II Directive (2009/138/EC) must be implemented into national law by 31 October 2010 and will supplant inter alia the First Non-Life Directive (73/239/EEC), as amended, the Recast Life Directive (2002/83/EC) and the Insurance Group Directive (98/78/EC) with effect from 1 November 2010.

## 2.1. Business activities and risk exposures

The insurance sector is dominated by two types of insurance, namely life insurance and non-life insurance. Insurance undertakings collect capital through underwriting, a process by which insurers first select the risks they wish to insure, measure the risks and exposures of potential clients and determine the premiums to be charged for those risks. Subsequently, they sell the insurances and collect the premiums in return which are invested in a broad range of assets. The core business of insurance undertakings consists of risk bearing. The following stylised balance sheet gives an overview of the business operations of a life insurance undertaking:

Stylised balance sheet: Life insurance undertaking

ASSETS		LIABILITIES	
ASSET CLASS	%	LIABILITY CLASS	%
Subscribed capital unpaid	0.1	Capital and Reserves	1.2
Investments:	93.3	Special items with an equity portion	0.2
- Real estate	2.8		
- Investments in affiliates/participating interests	3.9		
- Variable yield securities (equity)	22.0		
- Bearer and other fixed income securities	7.1		
- Loans guaranteed by mortgages/land charges	11.1		
- Listed bonds	27.9		
- Debentures and loans	15.5		
- Others and deposits with banks/ceding undertakings	3.0		
Deposits for life assurance policies/ investment risk born by policyholders	1.9	Technical provisions (net):	83.1
		- Mathematical provision	72.4
		- Provisions for bonuses/rebates	9.1
		- Unearned premiums/claims outstanding	1.6
Debtors	1.2	Technical provisions for life assurance policies/investment risk born by policyholders	1.8
Accruals	1.7	Deposits retained on re-insurance ceded	4.5
Other assets	1.8	Other liabilities	9.2
<b>TOTAL ASSETS</b>	<b>100</b>	<b>TOTAL LIABILITIES</b>	<b>100</b>

Figure 3<sup>129</sup>

While over 90 % of the assets are kept in a portfolio with a wide range of investment assets, about 80 % of the liabilities are technical provisions. Technical provisions are the amounts estimated to be appropriate to meet potential future claims arising out of insurance contracts and are calculated according to prudent actuarial and statistical principles.<sup>130</sup> It is striking that capital and reserves only make up 1.2 % of the liabilities. These figures explain how an insurance undertaking typically operates. Premiums collected from policy holders are invested in a variety of assets over long periods that can generate returns. At the same time, the firm calculates the potential future

<sup>127</sup> European Commission (2007).

<sup>128</sup> Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), OJ L 335, 17.12.2009, pp. 1–155.

<sup>129</sup> Joint Forum (2001c), Annex 2, p. 82.

<sup>130</sup> Joint Forum (2001c), Annex 3, p. 85.

claims of policy holders according to an actuarial and statistical basis and sets aside technical provisions to cover anticipated claims and costs arising from the policies it has written.

Non-life insurance undertakings operate similarly to life insurance undertakings. However, there is a difference which can be examined on the basis of the following balance sheet.

**Stylised balance sheet: Non-life insurance undertaking**

Assets		Liabilities	
Asset Class	%	Liability Class	%
Subscribed capital unpaid	0.8	Capital and Reserves:	<b>19.9</b>
		Subscribed capital	4.0
		Capital reserves	4.3
		Revenue reserves	10.5
		- Profit	1.1
Intangible assets	0.4	Participating certificates/subordinated liabilities	0.5
Investments:	<b>86.3</b>	Special items with an equity portion	0.7
- Real estate	4.2		
- Investments in affiliates/participating interests	11.8		
- Variable yield securities	23.9		
- Bearer and other fixed income securities	11.9		
- Loans guaranteed by mortgages/land charges	1.7		
- Listed bonds	17.3		
- Debentures and loans	11.5		
- Others and deposits with banks/ceding institutions	4.0		
Debtors	1.4	Technical provisions (net):	<b>61.5</b>
		- Unearned premiums/mathematical provision	10.0
		- Claims outstanding	41.2
		- Provisions for bonuses/rebates	0.9
		- Equalisation provision etc./others	9.4
Accruals	1.4	Deposits retained on re-insurance ceded	2.3
Other assets	7.7	Other liabilities	15.1
<b>Total Assets</b>	<b>100</b>	<b>Total Liabilities</b>	<b>100</b>

Figure 4<sup>131</sup>

In contrast to life insurance undertakings, non-life insurance undertakings typically hold a lower amount of technical provisions and in lieu thereof a higher amount of capital and reserves. In the current example, technical provisions represent approximately 60 % whereas capital and reserves amount up to 20 % of the liabilities. The much larger share of capital can be explained by the greater uncertainty associated with non-life insurance claims relative to life insurance claims. Life insurance claims can be estimated with a reasonable amount of statistical assurance while potential claims for non-life insurance policies are less predictable. Hence, there is a higher need for an additional buffer over the technical provisions in the non-life insurance industry which results in a higher amount of capital serving as a buffer for losses.<sup>132</sup>

Deducing from the above, the most relevant risk for insurance undertakings is *technical risk* (also referred to as *insurance underwriting risk*), i.e. the risk that the collected premiums will not be sufficient to actually cover all future claims and costs arising from policies that have been written.<sup>133</sup> Apart from technical risk, insurance undertakings also face *investment risk* and other non-technical risks. Investment risk relates to the potential loss in the value of investments made by an insurance undertaking and includes *credit*, *market* and *liquidity risk*.<sup>134</sup> Non-technical risks include *operational risk*.<sup>135</sup>

## 2.2. Sectoral capital requirements

Technical provisions constitute the main liabilities of insurers and are calculated on an actuarial and statistical basis. Nonetheless, as sophisticated as calculation methods may be they cannot offer an absolute guarantee that the computed and held technical provisions will be sufficient

<sup>131</sup> Joint Forum (2001c), Annex 2, p. 83.

<sup>132</sup> Joint Forum (2001c), p. 13.

<sup>133</sup> Joint Forum (2001c), p. 12.

<sup>134</sup> Joint Forum (2001c), p. 12.

<sup>135</sup> Joint Forum (2001c), p. 12.

to meet all future obligations towards policy holders and creditors. Therefore, an insurance undertaking whose head office is situated in a Member State is required to hold an adequate level of capital in respect of its entire business at all times, which can serve as a buffer for unexpected losses and costs (solvency margin).<sup>136</sup> Under the current EU solvency regime, the solvency margin requirements for *life insurance undertakings* must be equal to the sum of two results, namely (i) 4 % of the technical provisions of the insurance undertaking and (ii) 0.3 % of the capital at risk<sup>137</sup> which is an amount equal to the difference between the maximum payments under the policies underwritten and the technical provisions.<sup>138</sup> The minimum solvency margin to be retained by *non-life insurance undertakings* must be the higher of two results, (i) 16 % of the annual premiums written by the concerned institution (18 % up to a certain premium volume) or (ii) 23 % of the average annual claims costs incurred by the concerned institution (26 % up to a certain claim volume).<sup>139</sup>

In respect of the constituents of solvency margin, the current insurance directives distinguish between “elements eligible without limits” (e.g. paid-up share capital, reserves, profit and loss)<sup>140</sup>, “elements eligible with limits” (e.g. cumulative preferential share capital, subordinated loan capital)<sup>141</sup> and “elements eligible subject to prior supervisory approval” (essentially unpaid items)<sup>142</sup>. In contrast to the banking directives, which employ the terms “original own funds” and “additional own funds” to qualify the different layers of eligible capital, the current insurance directives do not use any specific terminology in this respect. Despite the distinct terminologies, however, the capital elements that are qualified as “elements eligible without limits” and “elements eligible with limits” in the insurance sector closely equate to those which are covered by “original own funds” and “additional own funds” in the banking sector.<sup>143</sup>

As of 1 November 2010, the current solvency margin requirements will be replaced by the provisions of the Solvency II Directive (2009/138/EC). Whereas the current regime mainly focuses on the liability side (technical risk), the newly adopted Solvency II Directive (2009/138/EC) takes account of the asset-side risks and will require that insurance undertakings also hold capital against market, credit and operational risk.<sup>144</sup> The new Solvency II regime will hence introduce a “total balance sheet” approach where all the risks and their interactions are considered for measuring solvency.<sup>145</sup> Under the Solvency II Directive (2009/138/EC), insurance undertakings will have to hold sufficient capital to cover two requirements, namely the *Solvency Capital Requirement* (SCR) and the *Minimum Capital Requirement* (MCR). The SCR covers all risks that an insurer faces (i.e. technical, credit, operational and market risk) and is based on a Value-at-Risk<sup>146</sup> measure calibrated to a 99.5 % confidence level over a 1-year time horizon, i.e. it ensures that the probability of an insurance undertaking being ruined during the year is no more than 0.5 %.<sup>147</sup> As soon as the SCR is breached, supervisors are required to intervene and take measures to restore the financial position of the concerned insurance undertaking.<sup>148</sup> The MCR ensures a minimum level of security below which the amount of financial resources should not fall. It should be calculated in a clear and simple manner, including a linear

<sup>136</sup> European Commission (1997), p. 3.

<sup>137</sup> Defined under Article 1.1(q) Recast Life Directive (2002/83/EC).

<sup>138</sup> Article 28 Recast Life Directive (2002/83/EC).

<sup>139</sup> Article 16a First Non-Life Directive (73/239/EEC), as amended.

<sup>140</sup> Article 27(2) Recast Life Directive (2002/83/EC), Article 16(2) First Non-life Directive (73/239/EEC), as amended.

<sup>141</sup> Article 27(3) Recast Life Directive (2002/83/EC), Article 16(3) First Non-life Directive (73/239/EEC), as amended.

<sup>142</sup> Article 27(2) Recast Life Directive (2002/83/EC), Article 16(2) First Non-life Directive (73/239/EEC), as amended.

<sup>143</sup> JCFC (2007a), para. 26.

<sup>144</sup> Article 101(4)(d)-(f) Solvency II Directive (2009/138/EC) (2009/138/EC).

<sup>145</sup> European Commission (2009), p. 1.

<sup>146</sup> A measure used to assess the risk associated with a portfolio of assets and liabilities. It measures the worst expected loss under normal conditions over a specific time interval at a given confidence level.

<sup>147</sup> Article 101 Solvency II Directive (2009/138/EC) (2009/138/EC).

<sup>148</sup> Article 136 Solvency II Directive (2009/138/EC) (2009/138/EC).

function calibrated to the Value-at-Risk of the basic own funds subject to a confidence level of 85 % over a 1-year period and different absolute floors for different types of insurances.<sup>149</sup>

The Solvency II Directive (2009/138/EC) will also introduce specific terminologies in respect of eligible capital elements in the insurance sector. It distinguishes between “basic own funds”<sup>150</sup>, which include (i) excess of assets over liabilities and (ii) subordinated liabilities, and “ancillary own funds”<sup>151</sup>, which include (i) unpaid share capital or initial fund that has not been called up, (ii) letters of credit and guarantees and (iii) any other legally binding commitments received by insurance and reinsurance undertakings. It further categorises own funds as tier 1, 2 and 3.<sup>152</sup> The classification as tiers depends on the distinction between “basic own funds” and “ancillary own funds” and further relies on characteristics such as permanent availability and subordination.

Unlike banking groups, insurance groups are currently not subject to consolidated supervision but to a mere supplementary supervision under the Insurance Group Directive (98/78/EC). The Insurance Group Directive (98/78/EC) provides for supplementary supervision of EU-authorized life or non-life insurance undertakings<sup>153</sup> with at least one subsidiary<sup>154</sup>, which must be an EU-authorized life, non-life insurance undertaking, reinsurance undertaking<sup>155</sup> or a non-EU insurance undertaking<sup>156</sup>. Or it must hold participations<sup>157</sup> in any such entity or must be linked by a horizontal structure with any such entity.<sup>158</sup> The current insurance group supervision regime has been criticised for the lack of a group supervisor, a clear definition of rights and duties of the supervisors and clear guidance on how cooperation between supervisors (e.g. exchange of information, consultations, verification of information) should be organised.<sup>159</sup> The European legislator has tackled these weaknesses by modernising and simplifying the requirements and by introducing a dedicated “group supervisor”<sup>160</sup> with powers and responsibilities to organise the group supervision; the group supervisor will set the SCR for the group, validate any group internal model and act as the central point for an effective supervision of the group.<sup>161</sup>

### 3. Sectoral commonalities and differences

The main business activities and risk exposures of banks and insurance undertakings are substantially disparate and managed differently as presented above. While banks mainly engage in

<sup>149</sup> Article 127 Solvency II Directive (2009/138/EC) (2009/138/EC).

<sup>150</sup> Article 87 Solvency II Directive (2009/138/EC) (2009/138/EC).

<sup>151</sup> Article 88 Solvency II Directive (2009/138/EC) (2009/138/EC).

<sup>152</sup> Articles 93 et seq. Solvency II Directive (2009/138/EC) (2009/138/EC).

<sup>153</sup> *Insurance undertaking* means an undertaking which has received official authorisation in accordance with Article 6 Directive 73/239/EEC or Article 6 Directive 79/267/EEC (Article 1(a) Insurance Group Directive (98/78/EC)).

<sup>154</sup> *Subsidiary undertaking* means a subsidiary undertaking within the meaning of Article 1 of Directive 83/349/EEC and any undertaking over which, in the opinion of the competent authorities, a parent undertaking effectively exercises a dominant influence. All subsidiaries of subsidiary undertakings shall also be considered subsidiaries of the parent undertaking which is at the head of those undertakings (Article 1(e) Insurance Group Directive (98/78/EC)).

<sup>155</sup> *Reinsurance undertaking* means an undertaking, other than an insurance undertaking or a non-member-country insurance undertaking, the main business of which consists in accepting risks ceded by an insurance undertaking, a non-member-country insurance undertaking or other reinsurance undertakings (Article 1(c) Insurance Group Directive (98/78/EC)).

<sup>156</sup> *Non-member-country insurance undertaking* means an undertaking which would require authorisation in accordance with Article 6 of Directive 73/239/EEC or Article 6 of Directive 79/267/EEC if it had its registered office in the Community (Article 1(b) Insurance Group Directive (98/78/EC)).

<sup>157</sup> *Participation* means participation within the meaning of Article 17, first sentence, of Directive 78/660/EEC (9) or the holding, directly or indirectly, of 20 % or more of the voting rights or capital of an undertaking (Article 1(f) Insurance Group Directive (98/78/EC)).

<sup>158</sup> Article 2(1) Insurance Group Directive (98/78/EC). A horizontal structure essentially exists if there is control in the absence of an equity investment, due to management on a unified basis or cross-membership of governing boards, see Gruson (2004), p. 23.

<sup>159</sup> European Commission (2009), p. 10.

<sup>160</sup> Article 251 Solvency II Directive (2009/138/EC) (2009/138/EC).

<sup>161</sup> European Commission (2009), p. 10.



deposit taking and lending, the main business activity of insurance undertakings consists in risk taking by collecting capital through underwriting and investing it. Banks predominantly incur credit and funding liquidity risks and to a less extent market and operational risks while insurers mainly bear risks related to their underwriting business (technical risk) and asset and liability management. Banks seem to focus rather on individual risks at first and monitor them with a broader view while insurance undertakings apply a reverse approach.

The capital requirements for banks and insurance undertakings differ substantially. Most strikingly, capital requirements for banks are determined on the basis of an institution's risk-weighted assets while solvency requirements for insurance undertakings are based on criteria that are related to an insurer's overall business volume as a risk proxy. To a great extent, the regulatory differences can be attributed to the disparate nature and characteristics of the sectoral business activities and risks as well as the different ways in which risk is managed and assessed by the firms.<sup>162</sup> Nonetheless, the banking and the insurance sectors share some commonalities in respect of capital regulation. Regulatory capital is intended to fulfil the same fundamental objective in both sectors, namely to absorb unexpected losses incurred by the risks of operations on a going concern basis and in a winding up situation.<sup>163</sup> Both sectoral capital regimes partially deal with identical risks (e.g. market and operational risks) and provide for similar eligibility criteria of capital elements. In both sectors, permanence, loss absorption and flexibility of payments are regarded as core elements that are required for the eligibility of regulatory capital.<sup>164</sup> The Solvency II Directive (2009/138/EC) will bring the different capital requirements more into line in the near future. The new insurance solvency regime will take a total balance sheet approach, considering both the liability and the asset sides, and include credit, market and operational risk in the solvency margin requirements. The Solvency II Directive (2009/138/EC) will also introduce a classification of eligible capital elements according to tiers similar to the categories of own funds in the banking sector and harmonise group supervision.

In developing an adequate capital regulatory framework for financial conglomerates, the differences derived from the disparate nature of the sectoral businesses and risks and consequently the distinct prudential approaches are acknowledged to be necessary.<sup>165</sup> In contrast, the differences which are not rooted in the sectoral differences are of concern to financial authorities because they provide regulatory arbitrage opportunities and can hamper an effective cross-sectoral capital regulation. As a principle, same risks should be treated same while different risks require different treatment. It has been identified in the past that supervisory authorities often face major problems with regard to the varying sectoral definitions of capital, varying sectoral approaches to asset and liability valuation, differing sectoral risks to which they are exposed and different sectoral ways in which risk is managed by the firms and assessed.<sup>166</sup> Hence, it seems important to eliminate cross-sectoral regulatory differences where appropriate and to strive for harmonised definitions and prudential approaches in relation to capital elements and risks, to the extent possible. In view of the currently ongoing legislative changes in the banking sector and the implementation of the Solvency II Directive (2009/138/EC), the level and adequacy of harmonisation of both sectoral capital requirements remain to be examined in the future.

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<sup>162</sup> Joint Forum (2001a), p. 12, para. 6; European Commission (2000), p. 19.

<sup>163</sup> JCFC (2007a), para. 38.

<sup>164</sup> JCFC (2007a), para. 38.

<sup>165</sup> European Commission (2001), p. 5; Scott (2005), p. 4.

<sup>166</sup> Joint Forum (2001a), p. 12, para. 6.

### III. Capital regulation of financial conglomerates

The intensification of links between distinct sectoral business fields allows financial conglomerates to transfer capital cross-sectorally more easily and use the capital linkage to take advantage of regulatory gaps. In the absence of a group-wide capital regulation, financial conglomerates can use regulatory gaps to assume higher risks without providing an adequate financial base commensurate with the actual risks taken. The weaknesses of a mere sectoral capital regulation in respect of financial conglomerates are various, including the risk of multiple use of the same capital for regulatory purposes, the failure to address unregulated financial sector entities, the inconsistency arising from the different treatment of same risks based on where the transaction is booked and the failure to take account of risk concentrations or diversification across different business lines.<sup>167</sup>

#### 1. Weaknesses inherent in sectoral capital regulation

The asymmetries between the different sectoral capital regulatory frameworks constitute one of the major weaknesses with regard to an adequate capital regulation of financial conglomerates. They provide for regulatory arbitrage opportunities, which enable financial conglomerates to capitalise on the misalignment between their actual risks taken and the sectoral regulatory requirements that they need to comply with. Regulatory arbitrage effects can be achieved through the techniques of double/multiple gearing and excessive leveraging, which result in an overstatement of a group's capital but in an undercapitalisation of the group in reality. In this context, the involvement of unregulated entities (e.g. unregulated holding company at the top level) may even bolster the effect of these techniques.

##### 1.1. Double and multiple gearing

A substantially distorted effect in the financial state of a financial conglomerate can be achieved by the so-called double and multiple gearing techniques. These techniques allow a financial conglomerate to count the same capital simultaneously for two or more regulated entities without an actual correspondent increase in the level of regulatory capital.<sup>168</sup> They can therefore give a false impression of the overall financial solidity of a group. The following simplified example shows how double gearing can impact the calculation of the capital of a financial conglomerate:

Assume A-Bank is the parent company of B-Insurance with a participation of 100 %. The sectoral capital requirement for A-Bank amounts to 1000 while B-Insurance must maintain a capital of at least 600 under the sectoral capital regime. The capital linkage and the level of capital of both companies are reflected in the following balance sheets.

Parent (A-Bank)				Subsidiary (B-Insurance)			
Assets		Liabilities		Assets		Liabilities	
Participation of 100% in B-Insurance	800	Capital	1200			Capital	800
Capital Requirement: 1000				Capital Requirement: 600			

Figure 5<sup>169</sup>

The above balance sheets show that both companies meet their capital requirements on a stand-alone basis. The parent company holds a capital of 1200 while it is only required to maintain 1000. The subsidiary holds a capital of 800 while its regulatory capital amounts to 600. However, the

<sup>167</sup> Oliver, Wyman & Company (2001), pp. 6-7.

<sup>168</sup> Joint Forum (2001a), p. 13, para. 18; European Commission (2000), p. 19.

<sup>169</sup> Mione (2006), p. 135.

financial solidity of A-Bank and B-Insurance is compromised on a group-wide basis. The overall capital requirement for the group would be 1600 (1000 for the parent company and 600 for the subsidiary) while the actually maintained capital only amounts to 1200. This results from the fact that the participation of the parent company in the subsidiary represents an asset for the parent on the one hand while it is reused as the capital of the subsidiary on the other hand. An accurate assessment of a financial conglomerate's group-wide capital level needs to exclude intra-group holdings of regulatory capital as only capital issued to external (i.e. non-group) investors provides support to the group.<sup>170</sup> The financial conglomerate in the above example is undercapitalised as the same capital is counted twice for regulatory purposes.

The technique of multiple gearing is applied where the same capital is counted multiple times to meet the sectoral capital requirements. It can be illustrated on the basis of the above example as follows: Assume that B-Insurance on its part has a 100 % participation in an investment firm (C-Investment Firm) whose regulatory capital requirement equals 250. B-Insurance invests an amount of 300 in C-Investment Firm. In this case, all three entities would meet their respective sectoral capital requirements on a stand-alone basis. However, the exemplified financial conglomerate is undercapitalised and fails to meet the aggregated capital requirements at the group-wide level as the same capital is levered three times.

It follows from the above example that the techniques of double and multiple gearing enable financial conglomerates to take on additional risks without accordingly increasing their regulatory capital charges at the group level. They undermine the function of an adequate capital regulation. Regulated single entities within a financial conglomerate may appear financially solid from a sectoral perspective while in reality the concerned financial conglomerate as a whole may additionally bear substantial but unattended risks.

### **1.2. Excessive leveraging**

Financial conglomerates can further attempt to avoid burdensome regulatory capital requirements and reduce their costs through excessive leveraging. Excessive leveraging refers to cases where a parent company issues debt and downstreams the proceeds as equity to its subsidiaries in order to satisfy sectoral capital requirements.<sup>171</sup> Such practice results in an increase in prudential risks as the received proceeds are derived from a liability position (debt) of the parent company which does not constitute an eligible constituent of regulatory capital. Further, although this kind of capital leveraging in itself must not be unsafe or unsound, the parent company could place undue pressure on the recipient subsidiary in times of financial stress in view of its own obligation to service the concerned debt - for instance by withdrawing capital from the subsidiary or by forcing the subsidiary to undertake an uneconomical transaction with related parties.<sup>172</sup> Another possible scenario of excessive leveraging is where a parent company issues capital instruments of one quality and downstreams them as instruments of a higher quality eligible to serve as regulatory capital. Excessive leveraging is another exercise that can lead to an overstatement of regulatory capital as it enables individual group entities to comply with their respective sectoral capital requirements while no sufficient capital is provided at the conglomerate level.

### **1.3. Unregulated group entities**

Another problem financial supervisors face in respect of an adequate capital regulation of financial conglomerates is where a financial conglomerate can demonstrate sufficient capital to support its regulated activities but the size and nature of its unregulated activities are such as to question the overall capital adequacy of the group.<sup>173</sup> Unregulated entities in financial groups generally present a problem for financial authorities and make an effective supervision cumbersome as they do not fall under the scope of financial supervision. One of the difficulties in carrying out supervisory tasks in this context lies in the fact that supervisory power to access information

<sup>170</sup> Joint Forum (2001a), p. 13, para. 19.

<sup>171</sup> Joint Forum (2001a), p. 14, para. 23; European Commission (2000), p. 19.

<sup>172</sup> Joint Forum (2001a), p. 14, para. 23; Jackson (2005), p. 125.

<sup>173</sup> Tripartite Group (1995), para. 45.

regarding unregulated entities is limited.<sup>174</sup> Despite their unregulated status, such entities can still have a substantial impact on the stability of the entire group and play an important role. They can carry out similar activities to regulated entities and take up relevant risks. Moreover, regulated group entities may transfer their risks to unregulated group entities in order to avoid supervisory constraints. A concrete example of the importance of unregulated entities in relation to the capital regulation of financial conglomerates can be demonstrated where an unregulated holding company at the top of a financial conglomerate creates the effects of excessive leveraging by down streaming debts to a regulated subsidiary which in turn are used to meet the subsidiary's regulatory capital requirements. In such a case, the competent authority needs to ascertain that the unregulated holding company is capable of servicing its external debt in order to assess the adequacy of the group capital. In general, the competent authority can attempt to obtain information either through the regulated entities or make use of public information sources. Such limited access to relevant information, however, may often not be sufficient to make an accurate and comprehensive assessment of the capital adequacy of the concerned financial conglomerate. As unregulated entities have the potential to facilitate the impairment and the circumvention of prudential supervision, they principally need to be considered in the capital assessment of financial conglomerates.

#### **1.4. Other conglomerate risks**

In addition, there are other risks that can potentially hamper an adequate capital regulation of financial conglomerates and may need to be tackled through an adequate group-wide capital regulation of financial conglomerates. A unique conglomerate risk which may require a higher amount of capital at the group level concerns the possibility that a financial conglomerate's collective exposure to a certain risk may be greater than the exposure of each subsidiary firm.<sup>175</sup> It is also argued that the usually large size and complexity of financial conglomerates pose greater amounts of systemic risk to the economy in general and therefore require higher capital reserves than ordinary financial intermediaries with a single line of business.<sup>176</sup> Furthermore, one could possibly think of reputational risk which refers to the potential that a negative publicity of one group member in a financial conglomerate may affect the whole group. While the merits of these claims can be disputed, they underline the importance of a group-wide regulation of capital for financial conglomerates as it is only at the group level that certain risks and gaps may be detected and can be properly attended to.

## **2. Capital requirements under the Financial Conglomerates Directive**

The rapid growth of financial conglomerates worldwide induced financial supervisors to establish an international working group in 1993, the Tripartite Group, in order to identify and to consider ways to address the supervisory challenges financial conglomerates pose. The Tripartite Group consisted of banking, insurance and securities supervisors from different countries, acting in a personal capacity but drawing on their supervisory experiences. It published a significant report in 1995, which inter alia highlighted the importance and the necessity of a group-wide capital assessment of financial conglomerates.<sup>177</sup>

In 1996, the Tripartite Group was superseded by the Joint Forum, which was established to take forward the work of the Tripartite Group. The Joint Forum released several reports on the supervision of financial conglomerates<sup>178</sup>, in which it emphasised inter alia that measurement techniques for assessing the capital adequacy of financial conglomerates need to be able to detect and provide for situations of double/multiple gearing and excessive leveraging, including situations where such effect can be created through unregulated intermediate holding companies.<sup>179</sup> The measurement techniques should be designed to address the risks taken by unregulated entities

<sup>174</sup> Tripartite Group (1995), para. 84.

<sup>175</sup> Jackson (2005), p. 127.

<sup>176</sup> Jackson (2005), p. 126.

<sup>177</sup> Tripartite Group (1995), para. 6.

<sup>178</sup> See Joint Forum (2001a).

<sup>179</sup> Joint Forum (2001a), p. 11, para. 2.

within a financial conglomerate, which carry out activities similar to the activities of regulated group entities for solvency purposes.<sup>180</sup> The Joint Forum also stressed the importance of the underlying sectoral capital requirements upon which the group-wide capital regulation should be implemented as a top-up.<sup>181</sup>

Considering the necessity of a group-wide capital regulation of financial conglomerates, the international working groups had to deal with the question as to how such regulation could be implemented in practice. Given that each financial sector generally provides for different definitions of regulatory capital and different capital requirements, it was necessary to determine which method could best ensure an adequate group-wide capital assessment and eliminate intra-group elements. Two principle methodical approaches were put forward in this respect, namely (i) capital regulation on a consolidated basis and (ii) a solo-plus approach to capital regulation.<sup>182</sup> Capital regulation on a consolidated basis views a financial group as a single economic entity with all intra-group exposures netted out and requires that all balance sheets of the group members are consolidated into one (accounting consolidation). This approach requires that assets and liabilities of all companies are totalled and set against the parent company's capital. Subsequently, capital requirements are applied to the consolidated entity at the parent company level and the result is compared with the parent's capital.<sup>183</sup> It generally assumes that the surplus capital in the individual group entity is available to the group as a whole.<sup>184</sup> This is generally a technique applied by banking supervisors in assessing capital adequacy of homogeneous banking groups. In comparison, the solo-plus approach focuses on individual group entities which are supervised on a stand-alone basis under their sectoral regime. The solo supervision is then complemented by a quantitative group-wide assessment of the adequacy of capital and a general qualitative assessment.<sup>185</sup>

The FCD provides for a supplementary group-wide capital framework for financial conglomerates which is applied in addition to the sectoral capital requirements. The supplementary capital regulation ensures that the overall capital at the conglomerate level is sufficient to meet the total of capital requirements of all entities within the group after elimination of intra-group elements.<sup>186</sup> The group-wide capital assessment is performed by comparing the aggregate of the different sectoral requirements with the sum of the group-wide capital. In this respect, the FCD partly provides for the applicability of both the consolidation and the solo-plus methods in calculating the group-wide capital. If a financial conglomerate must consolidate its accounts due to existing sectoral rules with regard to a homogeneous group structure (banking/investment services) within the financial conglomerate, it can calculate its group-wide capital on the basis of the consolidated accounts.<sup>187</sup> In the absence of consolidated accounts, the FCD allows for a solo-plus supervision by means of aggregation and deduction.<sup>188</sup>

The supplementary capital adequacy test for financial conglomerates is laid down in Article 6 and Annex I of the FCD.<sup>189</sup> The FCD includes unregulated financial entities in the scope of supplementary supervision, which may not be subject to capital regulation on a stand-alone basis.<sup>190</sup> A notional solvency requirement is calculated for the unregulated entity, which equals the hypothetical capital requirement such an entity would have to comply with under the relevant sectoral rules if it were a regulated entity of that particular financial sector. In order to ensure that

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<sup>180</sup> Joint Forum (2001a), p. 11, para. 2.

<sup>181</sup> The efficient sectoral supervision on a stand-alone basis is considered to be a compulsory prerequisite for an efficient supervision of financial conglomerates, *cf.* also European Commission (2000), p. 19.

<sup>182</sup> Tripartite Group (1995), para. 43.

<sup>183</sup> Tripartite Group (1995), para. 43.

<sup>184</sup> Tripartite Group (1995), para. 107.

<sup>185</sup> Tripartite Group (1995), para. 43.

<sup>186</sup> Annex I, Section I. 1(i) FCD; European Commission (2001), p. 4.

<sup>187</sup> Article 6(4) FCD and Method 1 (accounting consolidation) in Annex I FCD.

<sup>188</sup> Methods 2 and 3 in Annex I FCD.

<sup>189</sup> In Germany, the relevant norms are: § 10b Banking Act (*Kreditwesengesetz*) and § 104q Insurance Supervision Act (*Versicherungsaufsichtsgesetz*) in conjunction with the Regulation on the adequacy of own funds of financial conglomerates (*Verordnung über die Angemessenheit der Eigenmittelausstattung von Finanzkonglomeraten*).

<sup>190</sup> For instance, mixed financial holding companies pursuant to Article 6(3)(d) FCD.

financial conglomerates maintain sufficient capital at the group level, a coordinator<sup>191</sup> is appointed and entrusted with the task to oversee the maintenance of the group-wide capital at least once per year.

The FCD provides for four technical methods for the calculation of the group-wide regulatory capital. The calculation methods have been largely developed by the Joint Forum in its capital adequacy study of 1999<sup>192</sup> and have been adopted by the FCD with slight differences in terminology.<sup>193</sup> The calculation methods comprise the *accounting consolidation method* (Method 1), the *deduction and aggregation method* (Method 2), the *book value and/or requirement deduction method* (Method 3) and lastly a *combination of all methods* (Method 4). It remains at the discretion of the coordinator to determine which calculation method shall be applied in practice.

The group entities included in the scope of the computation of regulatory capital are as follow<sup>194</sup>: (i) credit institutions, financial institutions or ancillary banking services undertakings within the meaning of the CRD; (ii) insurance undertakings, reinsurance undertakings or insurance holding companies within the meaning of Article 1(i) of Directive (98/78/EC); (iii) investment firms or financial institutions within the meaning of Article 4(1)(1) of the Directive (2004/39/EC); and (iv) mixed financial holding companies<sup>195</sup>.

All FCD calculation methods should in principle yield broadly equivalent results if applied to any financial conglomerate. The following example intends to examine the adequacy of the first three calculation methods in the FCD. The fourth calculation method allows competent authorities to combine the first three methods in certain cases, which allows for national discretion and can differ largely depending on the individual conglomerate structure. As the objective of this analysis is not to address the differences in national rules and options but to assess the general adequacy of the FCD capital requirements, the fourth method will be excluded in this exercise. The assessment is carried out on the basis of the following example:

Assume A-Bank is the parent company of B-Bank and C-Insurance (ABC Group). A-Bank owns 100 % of B-Bank and owns 80 % of C-Insurance. The actually maintained capital and the required sectoral regulatory capital are as indicated below.

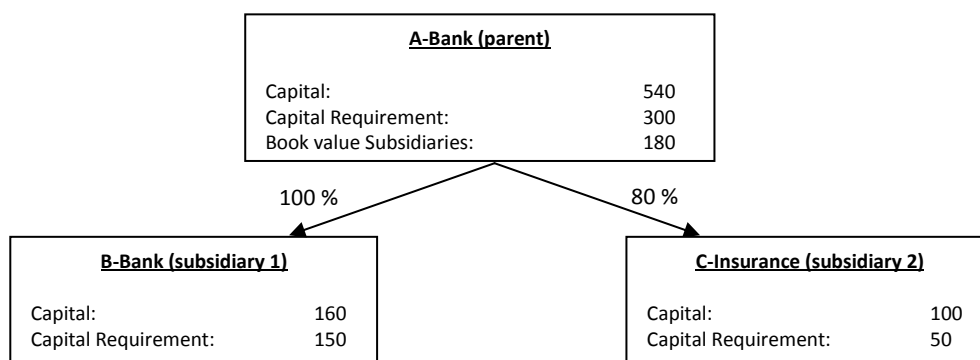


Figure 6<sup>196</sup>

<sup>191</sup> Under the FCD, the supplementary supervision of financial conglomerates is mainly exercised by the so-called *coordinator*, who will be appointed from among the competent authorities of the Member States concerned in accordance with the criteria set out in the Directive. The tasks of the coordinator include *inter alia* the assessment of the financial conglomerate's compliance with the supplementary rules on capital adequacy (Articles 10 and 11 FCD).

<sup>192</sup> Included in Joint Forum (2001a).

<sup>193</sup> European Commission (2000), p. 19.

<sup>194</sup> Pursuant to Article 6 (3) FCD in the manner and to the extent defined in Annex I of the FCD.

<sup>195</sup> A *mixed financial holding company* means an unregulated parent undertaking, which together with its subsidiaries, at least one of which is a regulated entity with its head office in the EU, and other entities, constitute a financial conglomerate.

<sup>196</sup> Barth/Maaser (2003), p. 67.

## 2.1. Accounting consolidation method

The accounting consolidation method essentially compares the consolidated capital of a financial conglomerate to the sum of the regulatory capital requirements for each group member. Under this method, the capital of a financial conglomerate is calculated on the basis of its consolidated accounts by applying the corresponding sectoral rules on the form and extent of consolidation (Article 6(4) FCD). The supplementary capital requirement for a financial conglomerate is that *(a) the own funds of the financial conglomerate calculated upon the consolidated position of the group must be **at least equal to** (b) the sum of the capital requirements for each different financial sector calculated in accordance with the corresponding sectoral rules*, including notional requirements for non-regulated financial sector entities in the calculation.<sup>197</sup> The difference between the consolidated capital and the aggregated sectoral capital requirements may not be negative.

Under European legislation, this method represents a technique which is applied to banking groups comprising investment firms. An undercapitalisation under this method will occur if the capital of a financial conglomerate will substantially diminish due to the consolidation. A prerequisite of this method is, however, that the financial conglomerate holds consolidated accounts. The application of the accounting consolidation method to the above example results in the following calculation:

<b><u>Accounting Consolidation Method</u></b>		
	Capital Parent	540
+	Capital Subsidiary 1	160
+	Capital Subsidiary 2	100
–	Book value Subsidiaries 1 and 2	180
=	<b>Consolidated capital</b>	<b>620</b>
	Capital requirement Parent	300
+	Capital requirement Subsidiary 1	150
+	Capital requirement Subsidiary 2	50
=	<b>Sum of all sectoral capital requirements</b>	<b>500</b>
⇒	<b>Difference of both sums</b>	<b>+120</b>

Figure 7<sup>198</sup>

The accounting consolidation method allows the inclusion of third-party shares in the capital of subsidiaries. The difference between the consolidated capital of the financial conglomerate (= 620) and the sum of the sectoral capital requirements (= 500) equals 120. Under this calculation method, the exemplified financial conglomerate meets its capital requirements both at the sectoral as well as the group level, holding a capital excess of 120.

## 2.2. Deduction and aggregation method

The calculation of the capital adequacy under the deduction and aggregation method is carried out on the basis of the individual accounts of each entity in a financial conglomerate. The supplementary capital adequacy requirement is that *(a) the sum of the own funds of each regulated and non-regulated entity in the financial conglomerate is **at least equal to** (b) the sum of the capital requirements of each regulated and non-regulated entity and the book value of participations in other entities of the group*, again including notional requirements for non-regulated financial sector entities in the calculation.<sup>199</sup> The application of this method to the above example results in the following calculation:

<sup>197</sup> Method 1 in Annex I FCD.

<sup>198</sup> Barth/Maaser (2003), p. 67.

<sup>199</sup> Method 2 in Annex I FCD.

### Deduction and Aggregate Method

	Capital Parent	540
+	Capital Subsidiary 1	160
+	Capital Subsidiary 2 (proportional)	80
–	Book value Subsidiaries 1 and 2	180
=	<b>Sum of all capital</b>	<b>600</b>
	Capital requirement Parent	300
+	Capital requirement Subsidiary 1	150
+	Capital requirement Subsidiary 2 (proportional)	40
=	<b>Sum of all sectoral capital requirements</b>	<b>490</b>
⇒	<b>Difference of both sums</b>	<b>+110</b>

Figure 8<sup>200</sup>

Under the deduction and aggregation method, the difference between the aggregated sum of capital held by all group entities (= 600) and the aggregated sum of all sectoral capital requirements (= 490) equals 110. Again, the exemplified financial conglomerate meets its capital requirements both at the sectoral and the group level and holds a capital excess of 110.

### 2.3. Book value and/or requirement deduction method

The calculation of regulatory capital under the book value and/or requirement deduction method is based on separate accounts of each entity in a financial conglomerate. Under this method, *(a) the own funds of the parent undertaking or the entity at the head of the financial conglomerate must be at least equal to the sum of (b) the capital requirement of the parent undertaking or the head as referred to above and the higher of either (i) the book value of the former's participation in other entities in the group or (ii) those entities' capital requirements.*<sup>201</sup> The latter is to be considered proportionally and again, a notional solvency requirement for non-regulated financial sector entities shall be calculated. The application of this method to the above example results in the following calculation:

### Book Value/Requirement Deduction Method

	<b>Capital Parent</b>	<b>540</b>
	Capital requirement Parent	300
+	Capital requirement Subsidiary 1	150
+	Capital requirement Subsidiary 2 (proportional)	40
=	<b>Sum of all sectoral capital requirements</b>	<b>490</b>
⇒	<b>Difference of both sums</b>	<b>+50</b>

Figure 9<sup>202</sup>

As the capital requirements for the subsidiaries (= 150+40) are higher than the book value of the parent's participation in the subsidiaries (= 180), the subsidiaries' capital requirements were used in this calculation. Under this method, the difference between the parent's capital and the sum of the parent's capital requirements and the subsidiaries' capital requirements equals 50. The exemplified financial conglomerate again meets its capital requirements both at the sectoral and the group level. However, the capital excess at the group level only amounts to 50, which presents less than half of the excess amount available to the group under the previous two calculation methods.

<sup>200</sup> Barth/Maaser (2003), p. 68.

<sup>201</sup> Method 3 in Annex I FCD.

<sup>202</sup> Barth/Maaser (2003), p. 67.



## **2.4. Adequacy of the methods**

All three FCD calculation methods are intended to be equal in applicability. It is at the discretion of the coordinator to decide, after consultation with the other relevant competent authorities and the concerned financial conglomerate itself, which method shall be applied in each individual case.<sup>203</sup>

The purpose of the above calculation test is to determine the adequacy of the calculation methods stipulated in the FCD. This can be answered in the affirmative if the application of all three methods to any financial conglomerate would yield broadly equivalent and consistent results. From the above calculations, however, it is evident that the methods do not lead to identical results. While the computed amount of capital excess at the group level under Method 1 (= 120) and Method 2 (= 110) are similar and comparable, the calculation result of Method 3 (= 50) is less than half of the results computed under the other two methods respectively. Method 3 therefore raises concerns as to its adequacy for the assessment of capital at the group-wide level of a financial conglomerate. Method 1 appears to be advantageous as it allows accounting for third-party shares in the capital of subsidiaries when computing the consolidated capital of the group, which has the effect of increasing the amount of regulatory capital held by the conglomerate.

## **3. JCFC's advice on capital regulation of financial conglomerates**

The transposition process of the FCD into national law has shown that the application of the supplementary FCD rules can be difficult due to the disparate underlying regulatory requirements of the banking and the insurance sectors. In order to further facilitate and improve the application of the FCD, the European Commission has requested technical advice from the JCFC on three topics since 2007.<sup>204</sup> The first call for technical advice on capital adequacy of financial conglomerates has resulted in (i) a comparison report of the capital instruments that are eligible as regulatory capital in the banking, securities and insurance sectors (the first JCFC Report)<sup>205</sup>, (ii) an impact assessment of sectoral differences for the supervision of financial conglomerates (the second JCFC Report)<sup>206</sup> and (iii) recommendations for actions which the JCFC considers appropriate to address the consequences of the differences identified in the preceding analyses (the third JCFC Report)<sup>207</sup>.

### **3.1. The first JCFC report**

The first JCFC report of January 2007 aimed at identifying the similarities and differences between the capital instruments eligible for the European banking, securities and insurance sectors. It concluded that while the eligible capital elements in the distinct financial sectors share a lot of commonalities, in particular as regards the principles (e.g. goal, purpose, main characteristics), there still remains a high level of differences which can generally be divided into two types. The first reflects differences that derive from the distinct nature of the traditional business and risks prevalent in the respective financial sector. For instance, unrealised profits and revaluation reserves are considered to belong to this category. While they qualify as eligible capital instruments in both the banking and the insurance sector, the extent to which those reserves are included in the computation of the regulatory capital differ substantially. Revaluation reserves are considered as additional own funds and accepted to a certain limit in the banking sector, while there is no limit to their inclusion in the insurance sector.<sup>208</sup> Capital elements which are truly specific to each sector such

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<sup>203</sup> Annex I FCD.

<sup>204</sup> Supra p. 8.

<sup>205</sup> JCFC (2007a).

<sup>206</sup> JCFC (2007b).

<sup>207</sup> JCFC (2008).

<sup>208</sup> JCFC (2007a), para. 144.

as profit reserves for life insurers or short-term subordinated loan capital for banks also fall into this category of difference. The different treatment of such capital elements is acknowledged to be necessary, reasoned by the different nature of business and risk management methods applied in the distinct sectors.<sup>209</sup> The second type of difference is unrelated to the sectoral business or risk profiles and therefore regarded as dispensable and detrimental, potentially leading to regulatory arbitrage opportunities.<sup>210</sup>

The JCFC identified four key differences with regard to the sectoral rules on the eligibility of capital instruments as regulatory capital. They concern the treatment of *unrealised profits* and *revaluation reserves*, the treatment of *hybrids*, the *thresholds for deductions*, and the *consolidation approaches and methods*. At the time of the publication of this report, hybrid capital instruments, i.e. capital elements that have features of both equity and debt, had not yet been explicitly addressed by sectoral EU directives but were considered relevant due to their growing importance.<sup>211</sup> In the absence of an EU-wide regulation, hybrids used to be recognised as eligible for original own funds of banks in some Member States up to 15 % in accordance with the Sydney Press Release<sup>212</sup> on the basis of three main criteria, namely permanence, loss absorption and flexibility of payments.<sup>213</sup> In the insurance sector, hybrids were only considered as eligible capital instruments where they were in excess of the required solvency margins. The absence of any international or European accepted minimum requirements comparable to the Sydney Press Release in the insurance sector had induced some Member States to adopt the principles established in the Sydney Press Release as a basis for the treatment of hybrids in insurance undertakings.<sup>214</sup>

As regards the capital computation methods for homogeneous financial groups, the JCFC established that a large degree of commonalities can be found in the principles of group supervision of the different sectors. The fundamental objective of group capital regulation is identical for both banking and insurance sectors, namely the elimination of double or multiple gearing and intra-group creation of capital.<sup>215</sup> Nonetheless, substantial differences were identified in respect of the scope of consolidation and the method of calculation.<sup>216</sup> Banking groups are subject to consolidated supervision and the group capital is generally computed on the basis of consolidated financial statements prepared for statutory accounting<sup>217</sup> while insurance groups are subject to supplementary supervision.<sup>218</sup>

### 3.2. The second JCFC report

In its second report of August 2007, the JCFC aimed at assessing the extent to which the identified four key differences can impact the composition and the amount of regulatory capital of financial conglomerates. The JCFC undertook a quantitative analysis based on a set of hypothetical numerical examples which covers the aforementioned three calculation methods of the FCD. The fourth method, which allows a combination of the three calculation methods, was excluded. Further, the study did not account for differences that can occur at national level due to different

<sup>209</sup> JCFC (2007a), para. 40.

<sup>210</sup> JCFC (2007a), para. 41.

<sup>211</sup> The treatment of hybrids as eligible capital instrument within original own funds was introduced in the EU in the context of the CRD II Review, *supra* p. 11, footnote 76.

<sup>212</sup> BIS Press release of 27 October 1998 on “Instruments eligible for inclusion in Tier 1 capital”, available at: <http://www.bis.org/press/p981027.htm>.

<sup>213</sup> JCFC (2007a), paras. 155-164.

<sup>214</sup> JCFC (2007a), para. 166.

<sup>215</sup> JCFC (2007a), paras. 316-317.

<sup>216</sup> JCFC (2007a), para. 319.

<sup>217</sup> See Articles 71, 133 Banking Directive (2006/48/EC) and Article 2 Capital Adequacy Directive (2006/49/EC); JCFC (2007a), paras. 365-366.

<sup>218</sup> The disparate approach with regard to group supervision has been harmonised to a great extent by the Solvency II reform.

transposition of the relevant sectoral directives and different interpretations of the FCD. The JCFC applied the banking capital requirements and the insurance solvency margin requirements to a hypothetical simplified balance sheet of a financial conglomerate. Two “building blocks” were designed to capture potential basic structures of a financial conglomerate: The first building block dealt with a “mother-daughter” conglomerate structure in order to find out to what extent the situation differs where a bank or an insurance undertaking is at the top of a financial conglomerate respectively. The second building block was designed to examine how participations were accounted for in a “step-mother” relationship in view of the different thresholds for participation deductions in each sector.

The report established that the key sectoral differences identified in the first JCFC report can indeed have an impact on the composition and the amount of regulatory capital of a financial conglomerate. In addition, it clarified that all three calculation methods of the FCD do not increase, alleviate nor eliminate the differences in capital which are driven by the sectoral differences.<sup>219</sup> The following sectoral differences were flagged in the context of the calculation of a financial conglomerate’s group capital:

(i) *Hybrids* (also referred to as *innovative instruments*) in the banking sector are recognised as eligible original own funds in some Member States up to 15 % in accordance with the Sydney Press Release while they are not explicitly recognised in the insurance sector. *Subordinated loans* are recognised up to 100 % of original own funds of a bank while they are only recognised up to 50 % of the required or available solvency margin in the insurance sector. As a result, a higher amount of hybrids and subordinated loans may be used in the banking sector for the composition of regulatory capital.

(ii) *Unrealised gains on assets* (e.g. latent gains on real estate) are not recognised as eligible capital instruments in the banking sector at all or in some cases only to a limited extent. However, they are recognised as eligible elements without limit (subject to prior supervisory approval) in the insurance sector. *Revaluation reserves* are subject to a limit as additional own funds in the banking sector while they are included in the insurance sector without any limit. These differences were considered to be justified by the different nature of the sectoral business.

(iii) It was clarified that the different sectoral treatment of *holdings* in other financial institutions within the conglomerate also has an impact on the calculation of the capital of a financial conglomerate. A holding in a bank between 10 % and 20 % is not automatically deducted if it is held by an insurance undertaking while it would be deducted if it were to be held by a bank within a financial conglomerate.

(iv) The study showed that the sectoral differences in *consolidation approaches and methods* can impact the results under the FCD Method 1 and Method 2.<sup>220</sup> The JCFC flagged that when comparing all three FCD calculation methods, Method 3 produced distorted results depending on whether the parent of a financial conglomerate is an insurance undertaking or a bank while under the first two methods this did not have an impact on the outcome of the computation.<sup>221</sup>

It was suggested that the identified sectoral differences in types of eligible capital elements and the differences in the limits on the inclusion of eligible items may influence the placing of assets and transactions within a financial conglomerate. However, this assumption was repudiated by industry participants and no strong evidence could be established that financial conglomerates actually take advantage of the existing differences in order to realise regulatory arbitrage.<sup>222</sup>

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<sup>219</sup> JCFC (2007b), para. 7.

<sup>220</sup> JCFC (2007b), para. 8.

<sup>221</sup> JCFC (2007b), para. 9.

<sup>222</sup> JCFC (2007b), paras. 8, 12.

Industry participants advocated a more consistent approach within sectors and pointed out that the differences in national implementation of the sectoral directives may be greater than the differences between the sectoral directives themselves. They indicated that they did not consider sectoral differences to be the main drivers for capital management and communicated no strong opinion on the priorities for cross-sectoral harmonisation.<sup>223</sup>

### 3.3. The third JCFC report

The JCFC published a third report in April 2008, in which it focused on the four main differences identified in the previous studies and offered the following recommendations:

(i) As regards *hybrids*, the JCFC proposed a cross-sectorally harmonised treatment of hybrid instruments as an eligible capital element and to maintain the principles and requirements for eligibility common, unless required by sectoral specificities.<sup>224</sup>

(ii) The different sectoral treatment of *revaluation reserves* and *unrealised gains* is considered to be justified by sectoral differences. The JCFC therefore recommended focusing on consistent implementation of the sectoral directives at the national level for the time being.<sup>225</sup>

(iii) The underlying sectoral rules for banks and insurance undertakings are identical with regard to the mandatory *deduction of holdings* if the held entity is an insurance undertaking but contain different limits when the held entity is a bank. If the parent company is an insurance undertaking, its holding, either in a bank or an insurance, will be mandatorily deducted if it exceeds 20 % of the held entity's capital or, if less, in case of a durable link. If the parent company is a bank, its holding in a bank is deducted if it exceeds 10 % of the held entity's capital or, if less, as far as the aggregated amount of smaller holdings exceeds 10 % of the parent's capital. The JCFC did not provide any specific explanation for the regulatory gap in the treatment of holdings or participations and recommended to still further gather evidence of potential regulatory arbitrage.<sup>226</sup>

(iv) Finally, the JCFC proposed Method 1 of the FCD (accounting consolidation method) as the default method. This approach would be consistent with the banking sector and also with the insurance sector as the accounting consolidation method was proposed in the Solvency II reform. However, the supervisory authorities should have the discretion to require the application of Method 2 in certain cases. As regards Method 3, the JCFC concluded that it is too simplistic and can deliver doubtful results.<sup>227</sup>

## 4. Legislative changes towards a more effective capital regulation

In view of the above findings of the JCFC, it seems important to examine whether the currently ongoing review work of the CRD and the newly adopted Solvency II Directive (2009/138/EC) take the recommendations of the JCFC into account and offer more harmonised sectoral rules where necessary and appropriate.

*Hybrids* have gained large popularity in recent years because they allow banks and insurances to raise funds in a cost-efficient and less dilutive way.<sup>228</sup> The previous lack of legislation on hybrids at the EU level has led to diverging eligibility criteria and limits for hybrids across sectors as well as borders. The JCFC pointed out in its studies that the non-harmonised treatment of hybrids can impede an effective capital regulation of financial conglomerates.

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<sup>223</sup> JCFC (2007b), para. 12.

<sup>224</sup> JCFC (2008), paras. 12, 13, 57.

<sup>225</sup> JCFC (2008), para. 68.

<sup>226</sup> JCFC (2008), para. 89.

<sup>227</sup> JCFC (2008), paras. 91, 105.

<sup>228</sup> JCFC (2008), para. 42. The volume of hybrids in the banking sector was estimated at around 213 billion EUR, which represents about 11.5 % of total eligible own funds as of 31 December 2006 (source: CEBS (2008a), para. 2).

In the banking sector, the European legislator has recently adopted a new directive<sup>229</sup> in the context of the CRD II Review which introduces explicit rules with regard to the inclusion of hybrids into banks' original own funds. The new provisions are largely based on the CEBS's advice<sup>230</sup> to the European Commission on a common EU definition of tier 1 hybrids. It is not by a list of specific instruments but by means of principles that hybrids are defined eligible. The new Article 63a of the Banking Directive (2006/48/EC) stipulates the key criteria for the eligibility of hybrids as original own funds to be permanence<sup>231</sup>, loss absorbency<sup>232</sup> and flexibility of payments<sup>233</sup>. The new Article 66(1a) sets out limits for the inclusion of such instruments.<sup>234</sup> Following the adoption of the new rules on hybrids in the CRD, the CEBS released implementation guidelines for hybrid capital instruments on 10 December 2009.<sup>235</sup> The guidelines aim at complementing the new CRD provisions and provide for more detailed instructions on the key criteria (permanence, loss absorption and flexibility of payments), on the limits as well as on hybrids issued through a special purpose vehicle which has not been addressed in the CRD.

In the insurance sector, the newly adopted Solvency II Directive (2009/138/EC) has introduced a new classification system of own funds based on a three-tier system. Eligible capital elements are defined according to the criteria loss absorbency on a going-concern basis and in liquidation, permanence, subordination as well as absence of incentives to redeem, absence of mandatory servicing costs and absence of encumbrances.<sup>236</sup> According to these criteria, which resemble the key eligibility criteria of the banking sector, hybrids can be included as eligible capital and classified as tier 1, 2 or 3 basic own funds or tier 2 or 3 ancillary own funds depending on their financial characteristics. In order to meet the highest quality of own funds, i.e. tier 1 basic own funds, capital instruments must be permanently available and subordinated in case of liquidation.<sup>237</sup> It is interesting to note that in the Fourth Quantitative Impact Study (QIS4)<sup>238</sup> it was established that the majority of hybrid capital instruments in practice was reported as tier 2 capital and not tier 1 mainly because they did not satisfy the loss absorbency requirements and criteria relating to permanence.<sup>239</sup> In contrast to the amended CRD, the Solvency II Directive (2009/138/EC) does not expressly regulate the treatment of hybrids but they are captured by the general provisions regulating own funds. The *Committee of European Insurance and Occupational Pensions Supervisors* (CEIOPS) is involved in the work related to the development of level 2 implementing measures and level 3 supervisory guidance

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<sup>229</sup> Supra footnote 76.

<sup>230</sup> CEBS (2008a).

<sup>231</sup> The instrument must be permanently available so that there is no doubt that it can support depositors and other creditors in times of stress (source: European Commission (2008), Accompanying document, SEC(2008) 2533, p. 4, footnote 10).

<sup>232</sup> The instrument must be available to absorb losses, both on a going concern basis and in liquidation, and to provide support for depositors' funds if necessary (source: European Commission (2008), Accompanying document, SEC(2008) 2533, p. 4, footnote 8).

<sup>233</sup> The instrument must contain features permitting the noncumulative deferral or cancellation of payment of coupons or dividends in times of stress (source: European Commission (2008), Accompanying document, SEC(2008) 2533, p. 4, footnote 9).

<sup>234</sup> Hybrids which are convertible into equity capital in emergency situation or at the request of competent authority can be included up to 50 % of original own funds while all other hybrid instruments cannot exceed a maximum limit of 35 %. Hybrids with a moderate incentive to redeem are limited to 15 % of an institution's original own funds.

<sup>235</sup> The newly amended CRD explicitly requests CEBS to elaborate guidelines for the convergence of supervisory practices with regard to hybrids (Article 63a(6) Banking Directive (2006/48/EC), as newly amended). The guidelines are available at: <http://www.c-ebs.org/documents/Publications/Standards---Guidelines/2009/Hybrids/Guidelines.aspx>.

<sup>236</sup> Article 93 Solvency II Directive (2009/138/EC) (2009/138/EC).

<sup>237</sup> Articles 94(1) and 93(1)(a)/(b) Solvency II Directive (2009/138/EC) (2009/138/EC).

<sup>238</sup> QIS are simulations, performed by insurers on a voluntary basis, of the impact of the proposed new requirements on their financial resources. These have been run by CEIOPS on the request of the European Commission.

<sup>239</sup> QIS4 Report (2008), p. 140.

of the Solvency II Directive (2009/138/EC) in the context of the Lamfalussy procedure.<sup>240</sup> It remains to be examined to what extent the requirements in the insurance sector will be consistent with those of the banking sector in order to provide for a harmonised cross-sectoral treatment of hybrids in the EU. At this point in time, it can be concluded that the principles in relation to the inclusion of hybrids in the banking and insurance sectors seem to have been sufficiently aligned.

As already indicated in the third JCFC report, the Solvency II Directive (2009/138/EC) has adopted the accounting consolidation-based method as the default method for the calculation of the solvency of insurance groups.<sup>241</sup> The deduction and aggregation method has been adopted as an alternative method.<sup>242</sup> The adoption of these calculation methods is positive as it brings the solvency calculation methods of insurance groups in line with those of the banking sector and thereby provides a common ground for the FCD's top-up calculation methods.

#### IV. Conclusion

The key objective of financial regulation and supervision is to ensure that financial institutions operate in a safe and sound manner, which allows to protect their customers and creditors and to safeguard the stability of the financial system. Only a stable financial system is capable of fulfilling its function of efficient and low-cost transformation and provision of financial resources. One of the key instruments financial authorities have at hand in regulating financial activities is to require financial institutions to maintain an adequate level of capital. The regulation of capital in each financial sector deals with different supervisory approaches, different definitions of capital, different types of risks and different capital requirements.

Recent developments and changes in the financial landscape have induced the emergence of financial conglomerates which unify banking/investment and insurance businesses under one roof. The cross-sectoral activities of financial conglomerates and the risks resulting thereof require that they are subject to a special supervision in addition to the sectoral supervision of individual group entities. In particular, several studies have identified that the lack of cross-sectoral capital regulation of financial conglomerates gives rise to prudentially relevant risks, which primarily arise from the use of double/multiple gearing, the use of excessive capital leveraging technique and the employment of unregulated entities. In order to capture those risks, a group-wide capital regulation is necessary, which can prevent financial conglomerates from taking advantage of the asymmetries between the sectoral capital requirements.

The EU legislator adopted the FCD in 2004, which provides for a supplementary supervisory framework for financial conglomerates, including additional capital requirements. The FCD provides three calculation methods for the computation of an adequate level of regulatory capital of financial conglomerates, namely the accounting consolidation method (Method 1), the deduction and aggregation method (Method 2) and the book value and/or requirement deduction method (Method 3). As indicated in Part 2 III 2. 2.3., Method 3 raises concerns as to its accuracy and adequacy for the assessment of the group-wide capital of a financial conglomerate. In line with this result, the JCFC highlighted in its studies that Method 3 of the FCD is too simplistic and delivers distorted results and assessed it to be an inadequate calculation method. The JCFC recommended Method 1 as the default method while Method 2 should be kept as an alternative method for certain cases. Consistent with this recommendation and with the calculation method for banking groups, the Solvency II Directive (2009/138/EC) has adopted the accounting consolidation-based method as the default method for the calculation of the solvency margin of insurance groups while the deduction and aggregation

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<sup>240</sup> The time table for the development of the level 2 implementing measures and level 3 guidelines is available at: [http://ec.europa.eu/internal\\_market/insurance/solvency/index\\_en.htm](http://ec.europa.eu/internal_market/insurance/solvency/index_en.htm).

<sup>241</sup> Article 230 Solvency II Directive (2009/138/EC) (2009/138/EC).

<sup>242</sup> Article 233 Solvency II Directive (2009/138/EC) (2009/138/EC).

method has been adopted as an alternative method. The adoption of these calculation methods for insurance groups contributes to a harmonised cross-sectoral approach of group capital requirements in the EU and to an enhanced application of capital requirements of financial conglomerates.

Another important sectoral difference which can potentially have a negative impact on the capital regulation of financial conglomerates concerns the different cross-sectoral treatment of hybrids. The JCFC proposed a cross-sectorally harmonised treatment of hybrid instruments as eligible capital instruments and to maintain the principles and requirements for eligibility common unless required by sectoral specificities. The CRD II Review and the Solvency II Review have taken account of this lack of regulation and introduced similar principles as regards the inclusion of hybrids in the composition and the amount of regulatory capital. Unlike the newly amended CRD, the Solvency II Directive (2009/138/EC) does not expressly regulate hybrids. As the implementing work at the level 2 and level 3 (Lamfalussy procedure) is currently ongoing, it remains to be examined whether the sectoral rules on hybrids will be sufficiently harmonised at the cross-sectoral level. A cross-sectorally harmonised approach will certainly contribute to a more enhanced capital regulation of financial conglomerates.

Overall, the FCD's capital regulatory framework seems capable of capturing and eliminating the core risks that are associated with the capital regulation of financial conglomerates. It accounts for the risk of regulatory arbitrage and includes unregulated entities in the computation of regulatory capital. Other conglomerate unique risks such as systemic risk or concentration risk, however, are not taken into account in the capital regulatory framework. It remains to be further examined whether those risks can have a substantial impact on the financial solidity of financial conglomerates to the extent that they need to be covered by the regulatory capital of financial conglomerates.

An adequate capital regulatory framework alone seems not sufficient in order to ensure the safety and soundness of financial institutions. The 2007-2009 crisis has demonstrated that a heavy reliance on capital requirements can be misleading. It has in particular highlighted the importance of liquidity and risk management. In order for financial institutions to understand and adequately manage their risks, they need to have an appropriate risk measurement and management in place. For financial conglomerates specifically, a group-wide central risk management system seems essential, which can implement appropriate mechanisms to quantify all risks that are assumed by the group. Other qualitative elements such as enhanced cooperation between supervisors and better exchange of information, both cross-sectorally and cross-border, seem vital in any attempt to suppress regulatory arbitrage.<sup>243</sup> The recent developments in the creation of a unified financial supervisor at the national level which integrates all financial sectors in one supervisory instance<sup>244</sup> was motivated by the goal to create a more efficient supervisory body which can make use of its universal knowledge of the financial industry. Such institutional consolidation may possibly contribute to a better supervision over financial conglomerates as a whole.

Capital adequacy regulation of financial conglomerates is a highly complex issue which requires the consideration of the underlying sectoral capital requirements at the entity level as well as the inclusion of both quantitative and qualitative supervisory elements at the group level. It also requires a cross-sectoral and oftentimes a cross-border perspective. Capital adequacy regulation of financial conglomerates in the EU also needs to consider different national implementation of the conglomerate directive and the sectoral directives as well as different supervisory approaches and institutional set-up at the national level. Keeping these diverse levels and aspects in mind, it can be concluded that the capital framework of the FCD addresses the risks associated with an adequate

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<sup>243</sup> Tripartite Group (1995), pp. 34-35.

<sup>244</sup> The British Financial Services Authority (FSA) set up under the Financial Services and Markets Act 2000; the Finanzmarktaufsichtsbehörde (FMA) in Austria since 2001; the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) in Germany since 2002.

capital regulation of financial conglomerates and provides a suitable legal ground for the capital regulation of financial conglomerates in the EU. As the FCD serves as a top-up framework to the capital requirements at the sectoral level, sectoral harmonisation seems important, where necessary and appropriate, in order to ensure an adequate capital regulation of financial conglomerates.



## REFERENCES

- Barth, Andreas/Maaser, Andreas (2003). "Offene Fragen: Die EU-Finanzkonglomeratsrichtlinie geht in die richtige Richtung, hat aber Schwächen" in: Bank-Information und Genossenschaftsforum, 30 (2003), 12, pp. 66-69.
- Basel I (1988). "International convergence of capital measurement and capital standards", Basel Committee on Banking Supervision, July. Version updated to April 1998, available at: <http://www.bis.org/publ/bcbsc111.pdf?noframes=1>.
- Basel II (2004). "International convergence of capital measurement and capital standards: A revised framework", Basel Committee on Banking Supervision, June. Comprehensive version of June 2006, available at: <http://www.bis.org/publ/bcbs128.pdf?noframes=1>.
- BCBS (2008). "Principles for Sound Liquidity Risk Management and Supervision", September.
- BoJ (2005). "The Expansion of Corporate Groups in the Financial Services Industry: Trends in Financial Conglomeration in Major Industrial Countries", Bank of Japan, December 28.
- CEBS (2006). "First part of CEBS technical advice to the European Commission on own funds; Survey of the implementation of the current rules on own funds across Member States", Committee of European Banking Supervisors, 23 June.
- CEBS (2008a). "Proposal for a common EU definition of Tier 1 hybrids", Committee of European Banking Supervisors, 26 March.
- CEBS (2008b). "Second part of CEBS's technical advice to the European Commission on liquidity risk management", Committee of European Banking Supervisors, CEBS 2008 (147), 18 September.
- CEPS Task Force Report (2008). "Basel II Implementation: In the midst of turbulence", Centre for European Policy Studies, June.
- Crockett, Andrew (2001). "Issues in global financial supervision", speech held at the 36<sup>th</sup> SEACEN Governors' Conference in Singapore on 1 June. Available at: <http://www.bis.org/speeches/sp010601.htm>.
- Crouhy, Michel/Galai, Dan/Mark, Robert (2006). "The essentials of risk management".
- Deutsche Bundesbank (2002). "Credit institutions' capital viewed from a business and a regulatory perspective", Monthly Report January, pp. 39-57.
- Dierick, Frank (2004). "The supervision of mixed financial services groups in Europe", European Central Bank Occasional Paper Series No. 20, August.
- Doff, René (2007). "Risk management for insurers. Risk control, economic capital and Solvency II".
- European Commission (1997). "Report to the Insurance Committee on the need for further harmonisation of the solvency margin", COM (97) 398 final, 24 July.
- European Commission (1999). "Financial Services: Implementing the Framework for Financial Markets: Action Plan", COM (1999) 232, 11 May.
- European Commission (2000). "Towards an EU directive on the prudential supervision of financial conglomerates", Consultation document, MARKT/3021/2000.
- European Commission (2001). "Proposal for a directive of the European Parliament and of the Council on the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate and amending Council Directives 73/239/EEC, 79/267/EEC, 92/49/EEC, 92/96/EEC, 93/6/EEC and 93/22/EEC, and Directives 98/78/EC and 2000/12/EC of the European Parliament and the Council", COM (2001) 213, 24 April.
- European Commission (2007). "Proposal for a directive of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance - Solvency II", COM (2007) 361, 10 July.

- European Commission (2008). "Proposal for a directive of the European Parliament and of the Council amending Directives 2006/48/EC and 2006/49/EC as regards banks affiliated to central institutions, certain own funds items, large exposures, supervisory arrangements, and crisis management", COM (2008) 602 final, 1 October.
- European Commission (2009). "Solvency II: Frequently Asked Questions", available at: [http://ec.europa.eu/internal\\_market/insurance/docs/solvency/solvency2/faq\\_en.pdf](http://ec.europa.eu/internal_market/insurance/docs/solvency/solvency2/faq_en.pdf).
- Filipova, Tatyana (2006). "The concept of integrated financial supervision and regulation of financial conglomerates in Germany and the United Kingdom".
- Greuning, Hennie van/Brajovic Bratanovic, Sonja (2003). "Analyzing and managing banking risk: a framework for assessing corporate governance and financial risk", 2<sup>nd</sup> edition.
- Gruson, Michael (2004). "Consolidated and supplementary supervision of financial groups in the European Union", ILF Working Paper Series No. 19.
- Half, Cameron (2002). "Evolving trends in the supervision of financial conglomerates: A comparative investigation of responses to the challenges of cross-sectoral supervision in the United States, European Union, and United Kingdom", April.
- Herring, Richard J./Santomero, Anthony M. (1990). "The Corporate Structure of Financial Conglomerates" in: Journal of Financial Services Research, Vol. 4, pp. 471-497.
- Jackson, Howell E. (2005). "Consolidated capital regulation for financial conglomerates" in: Capital Adequacy beyond Basel: Banking, Securities and Insurance, Hal S. Scott (ed.), pp. 123-145.
- JCFC (2007a). "Comparison of the sectoral rules for the eligibility of capital instruments into regulatory capital", Interim Working Committee on Financial Conglomerates (IWCFC), IWCFC-DOC-07/01, 3 January.
- JCFC (2007b). "Report on the impact of the differences in sectoral rules on the calculation of own funds of financial conglomerates", Interim Working Committee on Financial Conglomerates (IWCFC), IWCFC/DOC/07/04, August.
- JCFC (2008). "Recommendations to address the consequences of the differences in sectoral rules on the calculation of own funds of financial conglomerates", Interim Working Committee on Financial Conglomerates (IWCFC), IWCFC/DOC/08/03, April.
- Joint Forum (2001a). "Compendium of documents produced by the Joint Forum", July.
- Joint Forum (2001b). "Core principles – cross-sectoral comparison", November.
- Joint Forum (2001c). "Risk management practices and regulatory capital – Cross-sectoral comparison", November.
- Kremers, Jeroen/Schoenmaker, Dirk/Wierds, Peter (2003). "Cross-sector supervision: which model?" in: Brookings-Wharton Papers on Financial Services, pp. 225-243.
- Mälkönen, Ville (2004a). "Capital adequacy regulation and financial conglomerates" in: Journal of International Banking Regulation, Vol. 6, No. 1, pp. 33-52.
- Mälkönen, Ville (2004b). "The efficiency implications of financial conglomeration", Bank of Finland Discussion Papers No. 17.
- Maycock, James (1986). "Financial conglomerates: The new phenomenon".
- Mione, Andrea (2006). "Conglomerati finanziari: una analisi evolutiva e comparativa".
- Mishkin, Frederic S./Eakins, Stanley G. (2009). "Financial Markets and Institutions", 6<sup>th</sup> edition.
- MTG (2005). "Implementation and interpretation of Directive 2002/87/EC - the Financial Conglomerates Directive", Mixed Technical Group on the supervision of financial conglomerates, 14 November.
- Oliver, Wyman & Company (2001). "Study on the risk profile and capital adequacy of financial conglomerates", February.
- QIS4 Report (2008). "CEIOPS' Report on its fourth Quantitative Impact Study (QIS) for Solvency II", CEIOPS-SEC-82/08.
- Schilder, Arnold (2007). "Pragmatic regulation for financial conglomerates - A European supervisory perspective", speech held at Dublin Finance Conference on 26 March. Available at: <http://www.c-ebs.org/News--Communications/Speeches/2007.aspx>.

- Tarullo, Daniel K. (2008). "Banking on Basel – the future of international financial regulation".
- Tripartite Group (1995). "Report on the supervision of financial conglomerates", Tripartite Group of Bank, Securities and Insurance Regulators, July.
- Walker, George Alexander (2001). "International banking regulation: law, policy, and practice".
- Warth, Wolfgang P. (2003). "Bancassurance in Europa weiter auf dem Vormarsch" in: *Die Bank*, pp. 410-416.

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