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FINANCING THE REAL ECONOMY IN THE CAPITAL MARKETS

UNION ERA — RECOMMENDATIONS FOR POLICY ACTION

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1 Executive Summary

This report deals with the significance of the Capital Markets Union (CMU) for corporate finance. It begins by evaluating the status quo with regard to capital market-oriented and bank-based corporate finance in Germany. The subject matter and background of the CMU are then illuminated and the CMU is subjected to a qualitative analysis. The last section of the assessment features recommendations for action derived from the analysis.

The main results of the empirical section can be summarized as follows:

- (1) **There is a noticeable trend towards greater equity capital financing in Germany.** Calculated as a portion of their total balance sheet, the equity ratio of German companies has risen approximately ten percentage points over the last 15 years. This trend is even more pronounced for SMEs than for large companies.
- (2) The importance of bank credit and provisions for pensions has concurrently declined. The capital market-based share of financing has indeed risen; however, this increase has been restricted to capital market-oriented companies. **For SMEs bank loans remain the primary source of external financing.**
- (3) German companies are not as unique as commonly claimed. A sample of capital market-oriented companies in Germany analyzed by us demonstrates that during the 2002-2014 period bank loans amounted on average to nearly 8% of their balance sheets. This ratio is similar to those prevailing in countries with capital market-based corporate financing. **A look at German SMEs, however, reveals that bank loans amount to between 27% and 31% of their balance sheets. This is thus somewhat higher than the rates – which range between 17% and 25% - in France, Spain and Italy.** This means that bank-based financing is of great importance to SMEs in all of these countries.
- (4) An examination of the aggregate EU economy demonstrates that financial- and other capital markets have become progressively more important over the last 15 years. This trend has affected both Germany and other EU member

countries. It is, however, noteworthy that the countries with more capital market-oriented corporate finance (Denmark, Great Britain, the Netherlands, and Sweden) have recorded significantly higher growth in corporate lending since the financial crisis. We interpret this as an indication that banking- and capital markets are complementary. This implies that the growth of one sector facilitates that of the other.

The main findings of our assessment of the background and ramifications of a CMU are as follows:

- (5) The CMU is part of a larger-scale initiative being undertaken to improve financing conditions in the Single Market, especially with respect to long-term financing. Due to the conspicuous vulnerability of the banking sector that was revealed during the financial crisis, as well as the realization that the regulatory measures undertaken in its aftermath will impact the ability of the banking sector to provide long-term funding, the endeavor to improve the framework conditions for capital market-based corporate financing has not solely been anchored in the Commission's efforts.
- (6) With regard to the macroeconomic function of banks and capital markets, a complementarity and reciprocity between the two is described to the effect that the greater the positive effects on one sector, the greater they also are for the other sector. In this respect, the Bank- and Capital Markets Union must be assessed from an integrated perspective.
- (7) The securitization market constitutes one of the most important links between banks and capital markets. A broad consensus has emerged that this market must be strengthened.
- (8) **The success of these efforts is countered by the danger that the complex interaction of regulations governing capital markets, banks, and insurance companies creates the risk of liquidity drying up in bond markets.** The European Central Bank publicized its concerns in this area in its Financial Stability Report for 2014.
- (9) **Aside from the specific details of financial market regulation, it can be observed that European markets for financial services remain very**

fragmented. This fragmentation primarily has regulatory causes, with cultural and technical aspects also bearing responsibility. **Corporate law** is an example of this stark fragmentation, especially as it applies to corporate governance. **Insolvency law** provides an even more powerful example. We show that insolvency proceedings – when evaluated in terms of their effectiveness – exhibit an extensive heterogeneity in the EU.

- (10) In contrast, our assessment does not find much evidence to support the contention that the lack of depth in European capital markets is the result of higher standards of investor protection. It can be presumed that a softening of the prospectus obligations would not substantially foster the orientation of SMEs towards capital markets, although the establishment of a clear legal framework for private placements could have a broad positive impact. In contrast, the effect of consumer protection in the financial services area has given rise to a conflict of objectives requiring further investigation.
- (11) **It also cannot be assumed that the introduction of a slimmed-down version of IFRS financial reporting standards for SMEs will lead to a noticeable increase in their capital market orientation.** The danger even exists that this measure would negatively impact local investors, because they would then be confronted with three different accounting standards.
- (12) The growth effects of the CMU are intrinsically linked to the further development of bank regulation. The banking union project, which is by now fairly advanced, was conceived primarily to enhance the stability of financial markets. The crucial role of banks in the acquisition and evaluation of private information about SMEs is not sufficiently taken into account.
- (13) **The short-term orientation of insurers' capital adequacy regulation conflicts with the long-term nature of pension provisions.** Solvency II might therefore impact the willingness of these investors to entrust their funds to capital markets on a long-term basis. Relief has been formulated for the capital requirements in the area of high-end securitizations and for investments in infrastructure. In contrast, there has been no indication of a willingness to discuss other asset classes, such as corporate bonds and shares and private equity capital.

- (14) With regards to the financing conditions for medium-sized companies, the success of the CMU hinges on the extent to which bank-based financing for medium-sized companies will be improved. A prerequisite is the willingness of banks to continue to utilize only locally available, private information about SMEs in making decisions to extend credit. A strongly centralized **bank supervision, which is expected to be implemented via the banking union, could hinder the further development of local banking markets.**

These analyses have been used to identify, among other things, the following fields in which actions are to be undertaken:

- (15) The Action Plan on the CMU intends to consider the option of allowing the exemption of credit unions from equity capital regulations imposed by banking supervisory authorities (“CRR-lite approach”). This gives rise to the generally-applicable question of whether banks whose operations are limited to a specific region and whose size is below a certain threshold should be partially or entirely exempted from the Banking Union. It is conceivable that the supervision of these banks would once again be assigned to national authorities and carried out solely on the basis of national regulations. A similar procedure could be employed to credit funds as long as these funds do not engage in maturity- or liquidity transformation.
- (16) To further **strengthen the securitization market**, relief within the context of Solvency II and LCR should be considered. Greater integration of the European market for **covered bonds** would likewise be promoted. Due to the clearly divergent importance and organization of the existing national markets, this integration should initially occur **at the market infrastructure level** and not via a uniform legal structure for the instruments themselves.
- (17) The introduction of new asset classes of qualified infrastructure facilities within the Solvency II framework is definitely sensible. However, this approach is clearly much too narrow, because the **fundamental problem of a supervision oriented towards monitoring short-term solvency issues** for what is basically a long-term investment remains. This requires a thorough review of the overall regulatory approach, including **national regulations for retirement savings.**

- (18) The numerous barriers that exist for an integration of Europe's capital markets must be dismantled one at a time. This applies to the existing market infrastructure, to the inadequate harmonization of company and insolvency statutes, and also to the concrete- and taxation-imposed hurdles to pan-European sales channels.
- (19) **Early-stage and equity financing must be strengthened** to improve capital market access for SMEs. This will particularly require legislation at the national level. On the other hand, the impact of the reduction in prospectus requirements, the introduction of uniform SME accounting standards or the mandatory disclosure of sensitive loan data is dubious to counterproductive. In contrast, an unambiguous legal framework for private placements would certainly have favorable effects. The taxwise discrimination of equity capital should also be on the table.
- (20) Against the backdrop of financial market regulation which has become very complex in the EU, comprehensive analysis of the reciprocal and cumulative effects is urgently needed.

2 Financing structure of German companies

The subject of this report is the issue of how to fit the proposals for a CMU into the overall structure of the current landscape in corporate finance. To create a base of evidence for the discussion of this question in Sections 4 and 5, the structure of corporate financing in Germany will be described in greater detail in this section. Specifically, the following questions should be addressed:

- (1) How important is equity- and debt financing for German companies?
- (2) What can be deduced from (a) the historical development of the past 25 years or, as the case may be, from (b) a cross-national comparison about the future significance of ways to allocate capital?
- (3) How capital market-oriented are German companies?

Because company financing is ultimately only a reflection of the overall financial market structure, we want to additionally consider the topic of financing structure from the perspective of the aggregate economy. To do this, the following question will be answered:

- (4) How is the financial market structure in Germany currently constituted- also in comparison to other European countries?

2.1 Financing structure of German companies

The capital structure of German companies is examined in this section. First, the current situation will be analyzed, and then historical developments briefly considered. Consistent with other studies, it can definitively be said that there is a clear upward trend in German companies' equity-to-assets ratio in the past 15 years.¹

2.1.1 Equity capitalization

To analyze the role played by equity financing for German companies, Figure 1 displays the equity capitalization of German companies in 2013. This is divided into two sections. In the first, the left axis deals with the companies as a whole as well as

¹ For a more detailed treatment, cf. (Kaserer & Rapp, 2014) and (Beck, Kaserer, & Rapp, 2015)

the balance sheet weighted average. In the middle of the diagram, the companies are segmented by revenue into three size classifications, namely companies with greater than 50 million euros in revenue, between 10 and 50 million euros, and less than 10 million euros. To analyze the role of equity financing for German companies, Figure 1 presents the equity capitalization of German companies in the year 2013. It is divided in two, with the left side displaying the total number of companies examined and the right side presenting the weighted average of total assets (as the *representative company*), the median (as the *median company*), as well as the 25%- and 75% quantiles. The purpose of the latter is to display the breadth of the empirically observable values.² In the middle of Figure 1, the companies are subdivided into three size categories, i.e., companies with more than 50 million euros in revenue, those with revenue between 10 and 50 million euros, and those with revenue of under 10 million euros.³ The representative company, the median company, and the quantiles are displayed anew.

Three fundamental results can be noted:

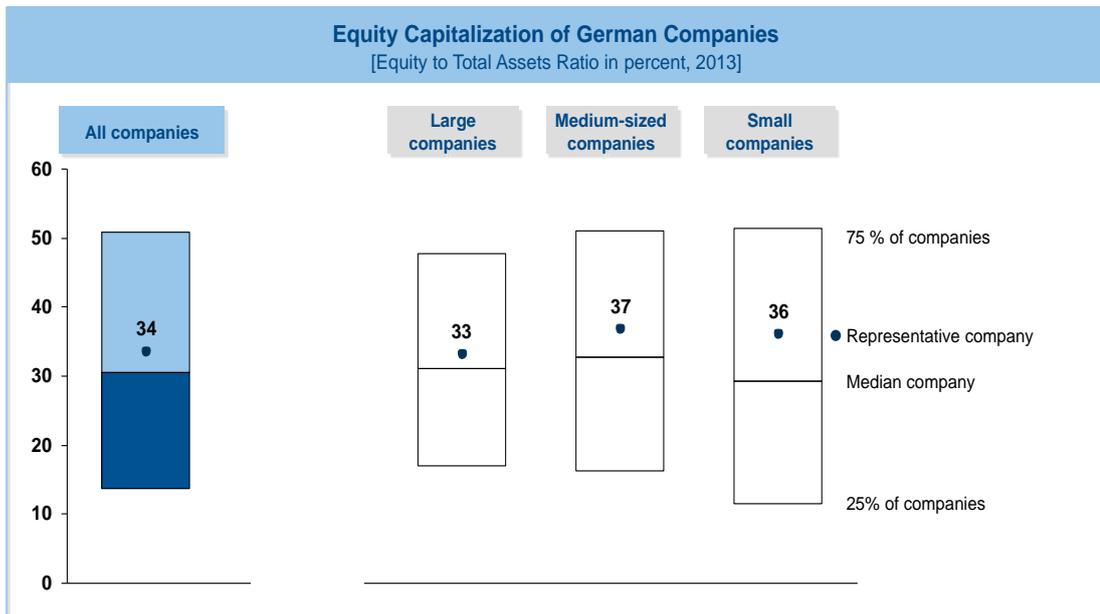
- First, the equity capitalization of the representative German company in 2013 amounts to 34 percent of the total balance sheet. Put differently: around one-third of the assets of German firms are currently financed with equity capital. Moreover, it illustrates that the disparities among the various size classifications are very narrow.
- There is, however, also a substantial dispersion: in a quarter of the companies analyzed, the current equity capitalization amounted to less than 15 percent, and for a further quarter it was greater than 50 percent.

This dispersion becomes even more pronounced the smaller the companies become.

² The 25% quantile indicates the value which 25% of companies do not exceed, whereas the 75% quantile specifies the value which is surpassed by 25% of companies.

³ This size categorization is in accordance with the Commission Recommendation of 6 May 2003 concerning the definition of micro, small, and medium-sized enterprises, whereby a company with fewer than 250 employees and either a maximum annual revenue of 50 million euros or a total balance sheet of no more than 43 million euros is classified as an SME. Concurrently, in accordance with this recommendation, companies with fewer than 50 employees and either an annual revenue of at least 10 million euros or a total balance sheet of at least 10 million euros are considered small companies. To simplify matters, the companies are solely categorized by revenue.

Around a quarter of the companies with sub-10 million euro revenues have an equity capitalization of only a little more than 10 percent.



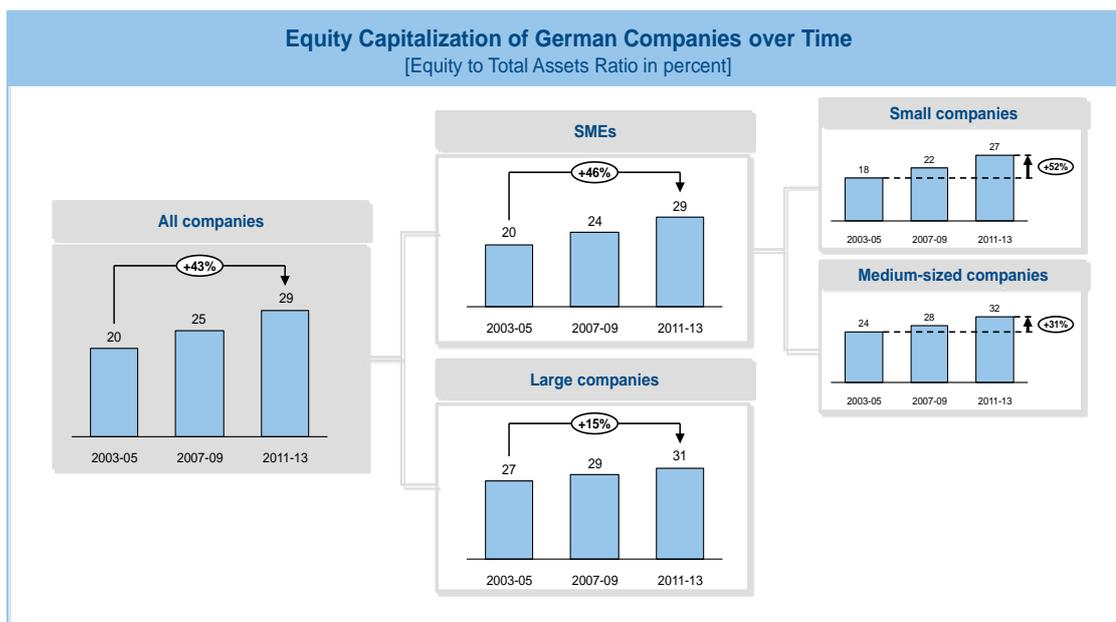
Comments: The diagram displays the equity capitalization for German companies, defined as the percentage share of equity in the total balance sheet (Variable E according to the BACH nomenclature) for the year 2013. The data basis is all companies (Sector Zc in the BACH nomenclature, i.e., Total NACE without holding companies (K642) and head offices (M701)). Large companies (medium-sized or small companies) are defined as companies with over 50 million EUR (between 10 and 50 million or less than 10 million EUR) in revenue. A total of 31,652 company observations were input, of which 4,079 firms were classified as large companies. Values for 2013 are provisional.

Source: Own analysis based on data from the European Committee of Central Balance Sheet Data Office’s BACH Database (as of June 2015). For a description of the data collected by the respective central banks see the aforementioned BACH document in the bibliography (Chapter 6).

Figure 1: Equity capitalization of German companies

2.1.2 Changes in equity capitalization over time

In the second step, the growth in equity capitalization between 2003 and 2013 is illustrated in Figure 2. Once again, there is differentiation by revenue in various size categories.



Comments: This figure displays the equity capitalization for German companies, defined as the percentage share of equity in the total balance sheet (Variable E according to the BACH nomenclature) for the years 2003-2013. The base data basis is comprised of all companies (Sector Zc in the BACH nomenclature, i.e., Total NACE without holding companies (K642) and head offices (M701)). Large companies (medium-sized or small companies) are defined as companies with over 50 million EUR (between 10 and 50 million or less than 10 million EUR) in revenue. The average of the median value over each respective three-year period is displayed. The number of companies input in the analysis for each year vary from 39,467 in 2003 to 55,008 in 2013. Values for 2013 are provisional.

Source: Own analysis based on data from the European Committee of Central Balance Sheet Data Office's BACH Database (as of June 2015). For a description of the data collected by the respective central banks see the BACH document cited in the bibliography (Chapter 6).

Figure 2: Equity capitalization of German companies over time

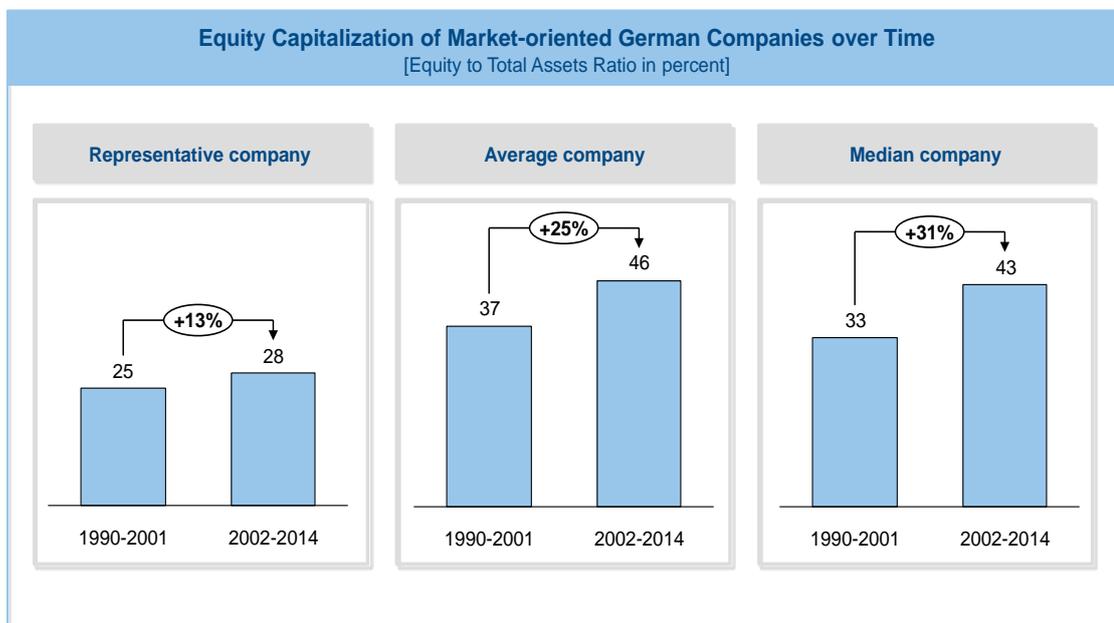
Similar to Figure 1, it can be seen that the median company currently has an equity capitalization of 29 percent, with only a small variation depending on size. Of greater importance is the recognition that, regardless of company size, the equity capitalization of the median company has increased over time.⁴ For example, large companies display an increase in equity capitalization of around 15 percent. However, for small companies, i.e., firms with less than 10 million euros in annual revenue, an increase of 52% has been observed since the 2003-2005 period.

There are two noteworthy observations. First of all, it reflects that this trend can also be found within the "market-oriented" group of companies, as displayed in Figure 3.⁵

⁴ This is a finding that coincides with those from other studies. See, e.g., the monthly report from the German Federal Bank (Deutsche Bundesbank) from December 2014, p. 37-48, on the profitability and financing conditions for German companies.

⁵ Every company listed in the OSIRIS database is defined by us as capital market-oriented, although the database provider has stated that listed and important non- or formerly-listed companies are included in the database. Unfortunately, a more precise distinction is not available.

One could draw the careful conclusion that the rise in the equity ratio is not only a consequence of a financing restriction that SMEs may be subject to, but may also be the result of a deliberate financing decision by management.



Comments: The figure presents the equity capitalization for German companies classified by Bureau van Dijk as "capital market-oriented", which is defined as the share of the total balance sheet in percent over the period from 1990-2014. The criteria for the data are non-overindebted companies from outside the financial services sector, for which certain variables (revenue, balance sheet, and equity capital) are available. A total of 13,379 annual observations from 1,232 companies were input.

Source: Own analysis based on data from the Bureau van Dijk ORBIS Database.

Figure 3: Equity capitalization of German companies over time

Second, we hypothesize that the rising equity ratios cannot be explained by an increased utilization of external financing sources, particularly capital markets. It may rather be related to an increased retention of profits. In fact, deeper analyses indicate that a company's equity capitalization is strongly correlated with its annual profit, and this correlation becomes even more strongly pronounced the smaller the firm is. This was investigated by carrying out a regression analysis of a comprehensive aggregate data set comprised of all non-financial limited-liability German companies of at least a minimum size.⁶ The regression analysis studied the equity capitalization of companies by i) annual profit as a source of internal equity financing and (ii)

⁶ This condition is due to the data availability from the utilized database. To be precise, the companies have to fulfill one of the following criteria: revenue \geq 10 mil. EUR or a total balance sheet \geq 20 mil EUR or at least 150 employees.

company size as a benchmark of access to capital markets. The results of this analysis are presented in Table 1.

Regression Analyses of Equity Capitalization of German Companies					
Model	(I.1)	(I.2)	(II.1)	(II.2)	(II.3)
Dependent Variable	Equity Capitalization		Change in Equity Capitalization		
Net Income (NI)	0,398*** [68,35]	0,478*** [11,18]	0,515*** [90,51]	0,642*** [15,48]	0,606*** [15,32]
Interaction (NI, Size)		-0,008* [-1,91]		-0,013*** [-3,09]	-0,010** [-2,56]
Size (ln)	0,005*** [20,57]	0,005*** [18,10]	0,032*** [29,68]	0,033*** [29,45]	0,028*** [25,88]
<i>Equity capitalization(lag)</i>	yes	yes	no	no	no
<i>Leverage (lag)</i>	no	no	no	no	yes
<i>Firm effects</i>	no	no	yes	yes	yes
<i>Industry effects</i>	yes	yes	no	no	no
<i>Year effects</i>	yes	yes	yes	yes	yes
Observations	112.715	112.715	112.715	112.715	112.715
Companies	24.370	24.370	24.370	24.370	24.370
Adj. R ²	0,876	0,876	0,167	0,167	0,207

Comments: This table presents the results of regression analyses of the equity capitalization of German companies. Starting from a universe of German non-financial companies, the relationship between the equity capitalization and i) net income (NI) as a source of internal equity financing and ii) company size as a benchmark for capital market access is examined with the assistance of five different models. Models (i.2), (II.2) and (II.3) in particular allow for interaction effects between both variables. The table also presents the coefficients as well as the t-values, with the latter being estimated using standard errors, which allow heteroskedasticity and autocorrelation at the company level. ***, **, * indicates that the corresponding coefficients at the 1%-, 5%-, and 10% significance level are not significantly different from zero. 24,370 companies with 112,715 annual observations from the years 2005-2013 were input into the analyses.

Source: Own analysis based on data from the Bureau van Dijk ORBIS Database.

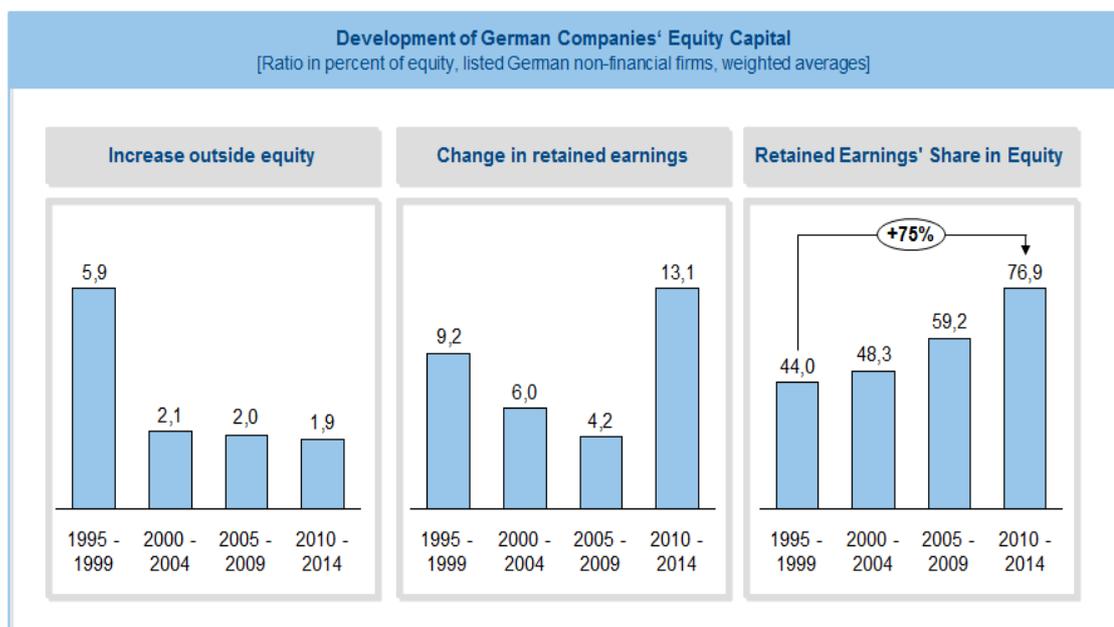
Table 1: Regression analyses of the equity capitalization of German companies

These results tangibly indicate that (a) net income is highly correlated with (and, furthermore, statistically highly significant) a company's equity capitalization; however, this relationship is b) *moderated* by company size in the sense that it is less strongly pronounced for larger companies. These results signify that smaller companies' equity capital is particularly fed from internal sources, i.e., especially retained profits.⁷ This finding is consistent with the widespread assumption that

⁷ This finding is supported by the commonly known fact that larger companies are more likely to pay dividends. The Dips/DSW dividend study 2014 notes, for example, that 81 percent of companies listed in the DAX, MDAX, SDAX and TecDAX indices paid a dividend in 2013, whereas only 37 percent of other Prime Standard companies could bring themselves to or wanted to; see <http://www.dsw-info.de/DSW-dips-Dividendenstudie-2014.1998.0.html>. As part of a comprehensive study of German companies, (Kaserer, Rapp, & Trinchera 2012) show that both the dividend payment as well as the total distribution of a company is positively related to company size.

small companies in Germany neither have access to capital markets nor, to any appreciable extent, other ways of obtaining equity capital, for instance, via private equity or venture capital. It remains unresolved as to what degree they are deliberately leaving them unused as sources of equity capital procurement and to what extent they are non utilizing them due to hurdles in accessing capital markets.

However, it is also evident that a significant part of the increase in equity capital of listed companies is also derived from retained earnings. Figure 4 shows that from 1995 to 1999, an average of 44% of these companies' equity capital originated from retained earnings, whereas this percentage rose on average to just under 77% during the 2010-2014 time period. At the same time, we see that the growth in equity capital which was raised externally has steadily declined since the 1990s.



Comments: This figure presents the trend in outside equity and retained earnings, measured as a share of equity, for German listed companies during the 1995-2014 period. Beginning with a population of all listed German non-financial companies, for which there is a minimum level of information available (total balance sheet, revenue, equity), the equity-weighted average (in percent) over the period is presented. 11,702 annual observations were analyzed.

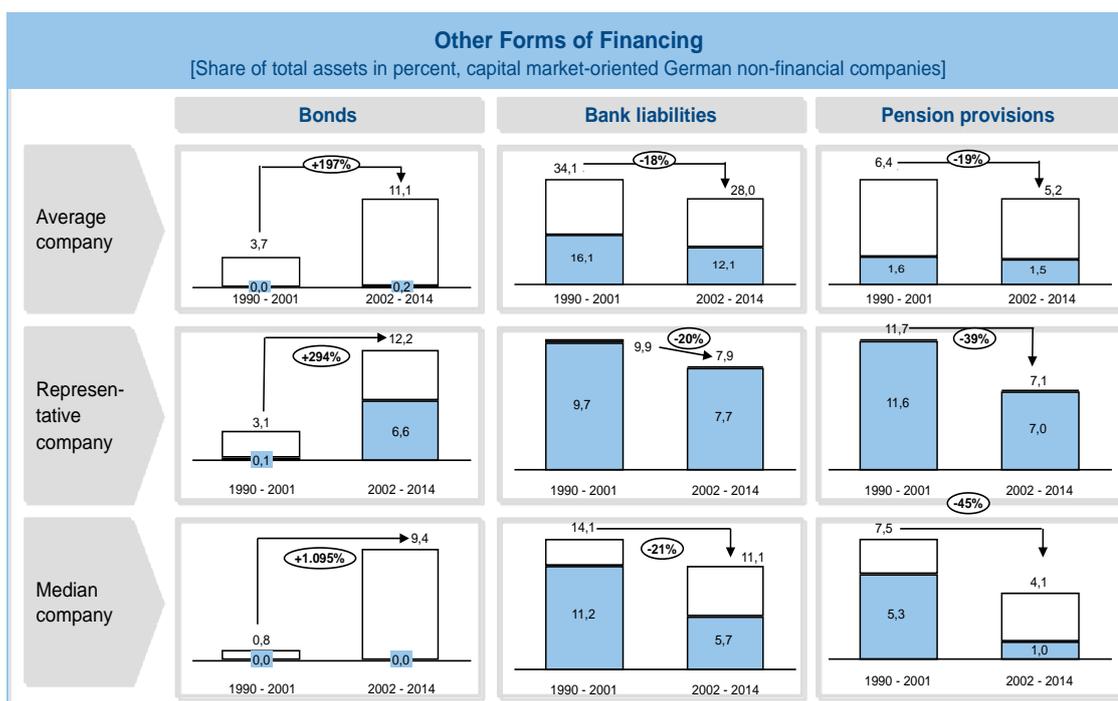
Source: Own analysis based on data from Thomson/Reuters Worldscope.

Figure 4: Development of German companies' equity capital

2.1.3 Other forms of financing

The analysis of company equity capitalization already suggests that debt financing is losing importance within the corporate finance context.

Nevertheless, it is interesting to examine how the individual components of debt financing are affected to varying degrees. Because information about the structure of debt financing for small businesses is either unavailable or limited, we will access the OSIRIS database, which provides information about capital market-oriented companies.⁸ The following diagram illustrates the three core elements of corporate debt financing: bonds, bank liabilities, and, of particular relevance for German companies, provisions for pensions.⁹



Comments: The figure presents different financing forms as a share of total assets for German non-financial companies classified by Bureau van Dijk as "capital market-oriented", over the period from 1990-2014. The criteria for the data are non-overindebted companies from outside the financial services sector, for which certain variables (revenue, balance sheet, and equity capital) are available. The values displayed in light blue refer to all companies, whereas the total values refer to the companies that actually have access to the respective source of financing. A total of 13,379 annual observations from 1,232 companies were input.

Source: Own analysis based on data from the Bureau van Dijk OSIRIS Database.

Figure 5: Other forms of financing for German companies

⁸ Regarding this, see 5, page 11. It must be noted that this database provides information about over 1,200 German companies, thus a considerable portion of German medium-sized companies are represented here.

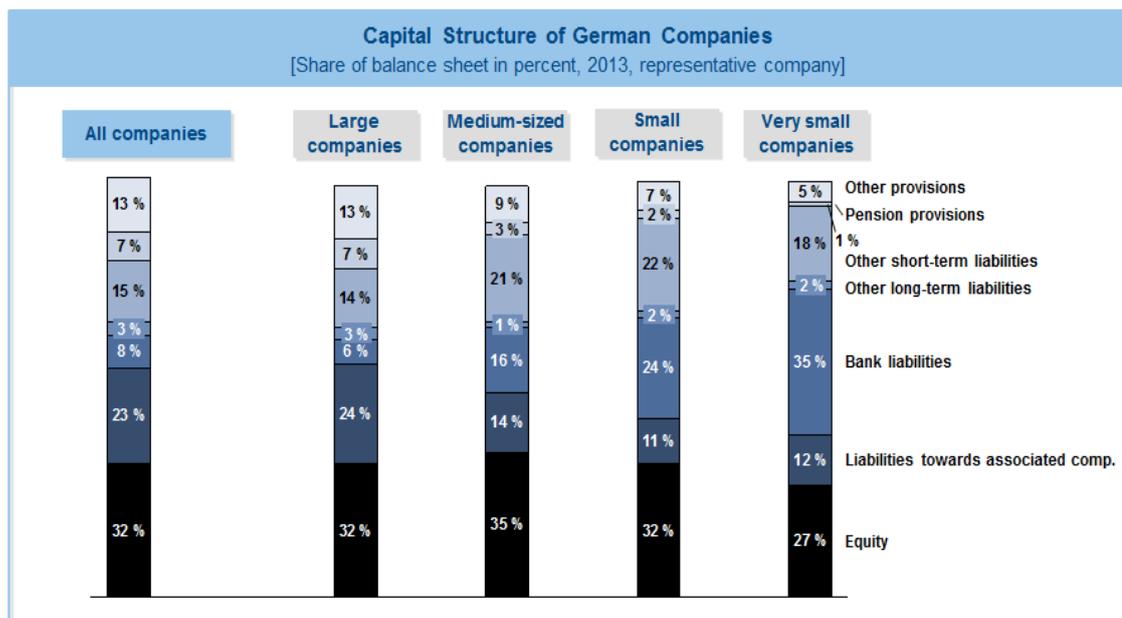
⁹ Using capital market-oriented companies is due to the fact that here the transparency allows differentiation among the elements of debt financing. In addition, it can be assumed that for non capital market-oriented firms bank loans are the only way to raise external debt.

Figure 5 presents a consistent picture for the average, representative, and median company: first we see, in comparison to the 1990s, that bank financing declined in importance in the 2000s. The weighted share fell from 9.9. to 7.9 percent of the total balance sheet and the average share from 16.1 to 12.1 percent. Pension provisions are also declining in importance for company financing, which in view of the trends observed in the last several years towards increased external funding of pension obligations, is hardly surprising.

We see simultaneously that capital market-oriented companies, including those that utilize bonds, are substituting capital market-based forms of external financing for bank loans and pension provisions. Referring to Figure 5, take only those companies that utilize bond financing, and in doing so assume that they are the representative company. The share of bond financing on their total balance sheet has risen from 3.1 to 12.2 percent.

However, as previously mentioned, this is only applicable to companies that already use this instrument. Because they are generally large companies, it is evident that the median company continues to refrain from using bonds as a financing instrument.

Because the above analysis is based on a sample of large companies, another data source should be used to determine the extent to which there may be systematic differences between SMEs and large companies. For this purpose, we will utilize data from the Bundesbank, which contains an analysis of balance sheet data from over 47,000 German companies. As can be seen in Figure 6, the weighted average of bank liabilities for all companies is 8% of the total balance sheet, which is consistent with the results presented in Figure 5. Its share for medium-sized companies is already 16 percent and 35 percent for the smallest firms. It is clear that bank financing remains by far the most important pillar of external financing for SMEs.



Comments: The figure presents the capital structure for German non-financial companies, divided into equity capital, liabilities, and provisions in percent of the total balance sheet for the year 2013. Large companies (medium, small, or the very small companies) are defined as companies with over 50 million EUR in revenue (between 10 and 50 million EUR, between 2 and 10 million EUR, or less than 2 million EUR). The data set consists of 47,476 companies.

Source: Own analysis based on data from the German Central Bank (Deutsche Bundesbank (2015), 72nd monthly report (as of 18.8.2015), XI. Economic conditions in Germany, Chapter 10 Assets and liabilities of listed non-financial business groups.

Figure 6: Capital structure of German companies

This result is no way surprising. The importance of bank credits for SMEs is already derived from lot size considerations alone. To quantify this assertion, consider the KfW Development Bank survey of medium-sized companies. This is a recurring written survey of 9-15,000 companies with an annual revenue of up to 500 million euros that collects diverse data on the medium-sized companies in Germany. Among other information derived from this data is that in the years 2010 and 2013, an average of 43% of the companies needed loan financing of up to 20,000 EUR and 64% needed up to 50,000 EUR. A mere 5% of the companies had borrowing requirements greater than 500,000 EUR. At these levels, the associated fixed costs alone eliminate the use of capital market financing by the majority of medium-sized companies.

There are, unfortunately, no reliable statistics on the level of these fixed costs; however, they can reach the upper five digits even for basic bond issues. For German medium-sized companies' bond issues, (Bösl & Hasler, 2012), page 224, report that the costs for creating the prospectus alone amount to between 30,000 EUR and 100,000 EUR. There are additional expenses for due diligence, the rating, the

roadshow, miscellaneous consulting, as well as listing fees and additional fees owed to the German Federal Financial Supervisory Authority (BaFin). Furthermore, there are the variable bank placement commissions as well as expenses for the **paying agent**. Even for a small issue, these issuing costs amount to a considerable expense burden. (Kaserer & Schiereck, 2011), page 68, calculate that when German medium-sized companies' bonds issue volume is at least 15 million EUR, they face an average cost burden of 4.51%. A similar figure of 4.4% was calculated by (Lee, Lochhead, & Ritter, 1996) for bond issues in the United States up to 10 million USD. It should be noted that the figures for average cost burdens are considerably affected by economies of scale.¹⁰ Even if the fixed cost burden for securities issues would sink due to technological advances, which is currently unlikely, for a large number of the medium-sized companies direct capital market financing will not be considered on cost grounds alone.

Overall the studies in this section have shown that there is certainly a smaller group of companies that have visibly broadened their capital market-based debt financing in the previous 15 years. This has led to a share of 6.6 percent on the total balance sheet for corporate bonds, which is not a negligible sum.¹¹ At the same time, it is also accurate to state that capital market-based debt financing has not until now played a considerable role for the majority of German companies. Bank financing will, therefore continue to remain by far the most crucial pillar of external financing.

2.1.4 European comparison

This section examines the development of the above mentioned financing structure of German companies, but it is presented within a European context. Figure 7 compares the situation in Germany with that of market- or bank-based European countries. Due to greater data availability, capital market-oriented companies are analyzed here. This follows the distinction between market- and bank-based

¹⁰ The economies of scale in equity issues are well documented, e.g., (Altinkilic & Hansen, 2000), (Bühner & Kaserer, 2002) and (Kaserer & Steiner, 2004).

¹¹ This figure, must, however, be interpreted with caution. When using the BACH database, the result is a share of 2..2 percent (see Figure 8). There may be a certain selection bias for the companies in the OSIRIS database.

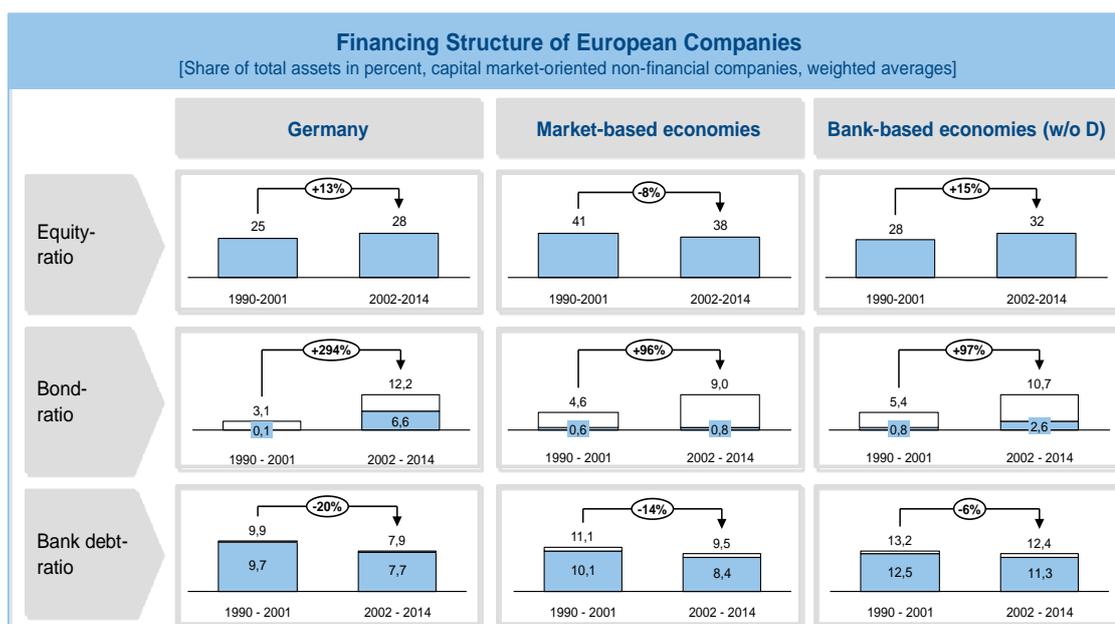
companies established in the literature, which originated with the classification developed by (Demirguc-Kunt & Levine, 1999). This classification divides countries based on their financial market structure and the size and activity of individual financial or capital markets and rates them as either market-oriented or bank-oriented. Capital market-oriented corporate financing is predominant in a capital market-oriented system, whereas loan-oriented corporate financing is preponderant in a bank-based system. Within the EU, Denmark, Great Britain, the Netherlands, and Sweden are rated as rather capital market-oriented, and the other countries are classified as bank-oriented.

In Figure 7, the equity ratio as well as the importance of capital market- and bank-based debt for a large sample of 10,000 European companies are presented. The following findings can be stated:

- First of all, it indicates that the German trend in rising equity ratios has also been observed in the other EU countries. The equity ratio of companies located in the traditionally bank-based countries in the EU-15 has clearly increased during the period of review. Starting from a low level, the weighted equity ratio for German companies has risen approximately 13 percent. In the other bank-based countries, the increase was around 15 percent. In contrast, countries with traditional capital market-oriented corporate financing, a decrease of 8 percent was recorded.
- It can likewise be stated that there was an increase for all countries in the importance of capital market-oriented debt securities (bonds) within the corporate finance framework. If only companies that have access to bonds and debentures are taken into account, German firms have seen an above-average rise of almost 300% over the period of review, albeit from a small base. The average in all countries is around 100%. Of additional interest is the finding that the share of capital market-oriented debt financing instruments on the total balance sheet of all companies is very low in both market- and bank-based

countries.¹² If the weighted average is considered instead of the arithmetic average, the share for bonds would even be more negligible.

- Furthermore, the importance of bank loans has been declining for both groups of countries. However, the decline in other countries is not as pronounced as in Germany. For the bank-based countries in particular, once Germany is removed the decrease is very low. The decline in the group of market-based countries is markedly greater.
- Finally, Figure 7 indicates that the importance of bank-based company financing remains high in all countries. In particular, it can be ascertained that in all 15 of the EU countries the share of bank credit on the balance sheet ranges from one-eighth to one-twelfth, hence it is significantly more important than the share of capital market-based financing.



Comments: This figure presents the financing structure for European companies classified by Bureau van Dijk as "capital market-oriented", defined as a share of the total balance sheet in percent over the period from 1990-2014. The results for German firms are displayed first, then the situation in the rest of Europe, subdivided into market- or bank-based economies in accordance with the classification suggested by (Demirguc-Kunt & Levine, 1999). The criteria for the data are non-overindebted

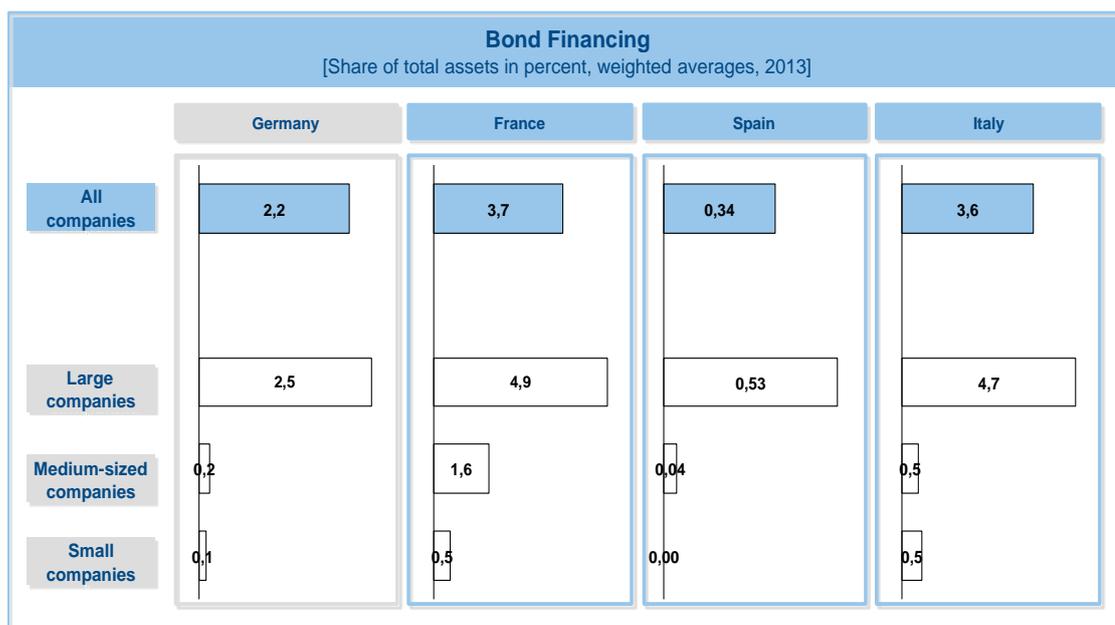
¹² For Germany, Figure 7 presents a weighted share of bonds on the total balance sheet of 6.6 percent. This ranks relatively high in international comparisons. It should be noted that this could be the result of selection bias because the database provider's definition of "capital market-oriented" is not transparent. As a result, some distortion cannot be ruled out because there is a tendency to select large German companies.

companies from outside the financial services sector, for which certain variables (revenue, balance sheet, and equity capital) are available. The values displayed in light blue refer to all companies, whereas the total values refer to the companies that actually have access to the respective source of financing. Here, Europe consists of Austria, Belgium, Denmark, Finland, France, Great Britain, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and Switzerland. Of these countries, Denmark, Great Britain, the Netherlands, and Sweden are classified as market-based. A total of 108,954 annual observations from 11,464 companies were input.

Source: Own analysis based on data from the Bureau van Dijk OSIRIS Database.

Figure 7: Financing structure of European companies

The necessity to resort to capital market companies, due to greater data availability, raises the question of whether the picture would have been systematically altered if smaller companies had been incorporated into the analysis. To accomplish this, we refer back to the BACH data which was utilized above, where the percentage share of bonds and similar debts on the total balance sheet is taken into account. The results are then collated in Figure 8. It is evident that the significance of bond financing declines when the larger sample of companies is taken into account. Nevertheless, at 2.2 percent, while still not unremarkable, in comparison with countries such as France and Italy, Germany clearly lags behind. If it is possible to segment the companies by size, it can be determined that bond financing is almost exclusively utilized by larger companies. Only in France do medium-sized companies use an appreciable amount of bond financing.



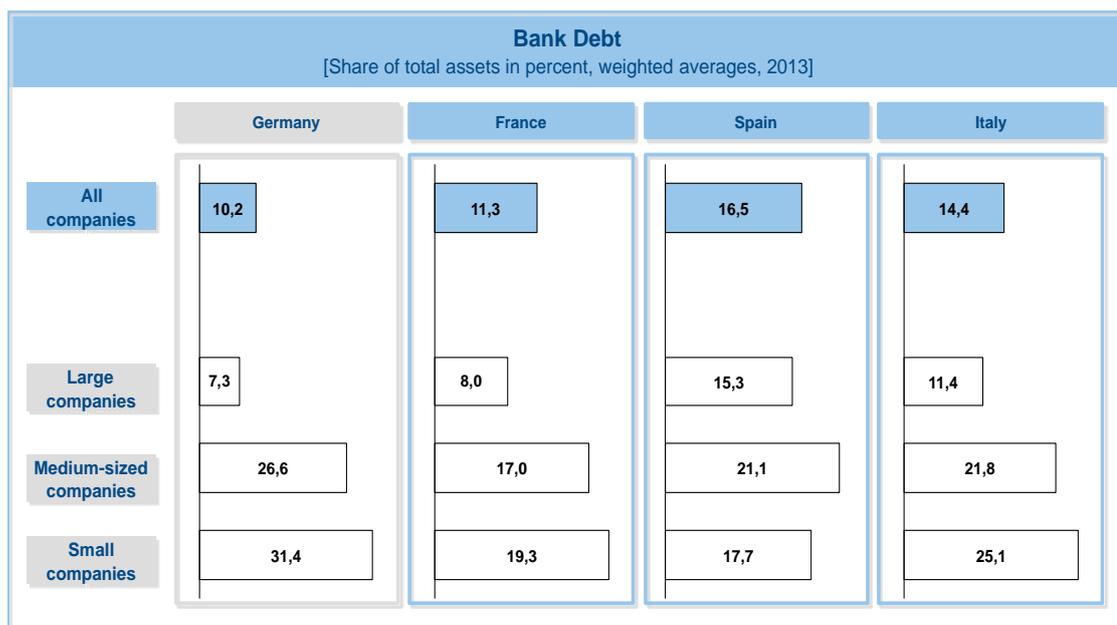
Comments: This figure presents bond and similar debt, defined as the percentage share of total assets (variable L1 according to the BACH nomenclature) for the year 2013. The data set is comprised of all companies (Sector Zc in the Bach nomenclature, i.e.,

"Total NACE without holding companies (K642) and head offices (M701)". Large companies (medium-sized or small companies) are defined as companies with more than 50 million EUR in annual revenue (between 10 and 50 million EUR or less than 10 million EUR).

Source: Own analysis based on data from the European Committee of Central Balance Sheet Data Office's BACH Database (as of June 2015). For a description of the data collected by the respective central banks see the aforementioned BACH document in the bibliography (Chapter 6).

Figure 8: Bond financing in selected countries

We will also use the BACH data to complement the diagram in Figure 7, which displays the significance of bank financing. As is evident in Figure 9, SMEs make heavy use of bank financing not only in Germany, but also France, Spain, and Italy. In the latter three countries, its share of the total assets ranges from 17 to 25 percent. Although the corresponding range is 27 to 31 percent for German SMEs, it does confirm the hypothesis expressed above that bank financing continues to represent a central pillar of financing for SMEs also outside of Germany.



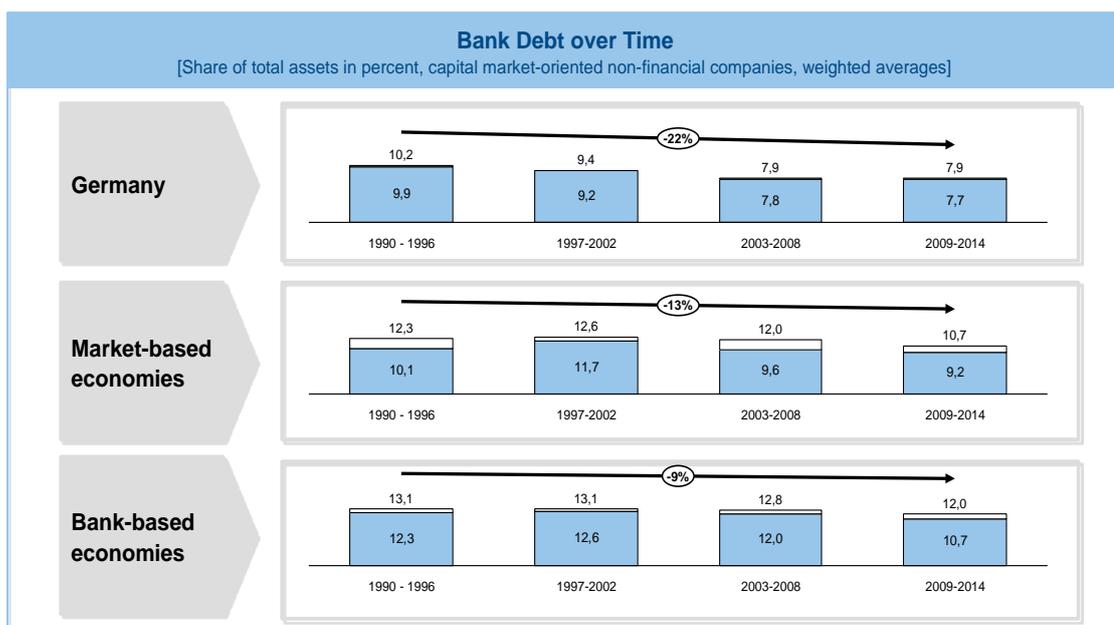
Comments: This figure presents liabilities to financial institutions, defined as the percentage share of the total balance sheet (variable L2 according to the BACH nomenclature) for the year 2013. The data set is comprised of all companies (Sector Zc in the Bach nomenclature, i.e., "Total NACE without holding companies (K642) and head offices (M701)"). Large companies (medium-sized or small companies) are defined as companies with more than 50 million EUR in annual revenue (between 10 and 50 million EUR or less than 10 million EUR). Technical note: the base data refers to liabilities to financial institutions and thus also comprises liabilities from lease financing and similar instruments.

Source: Own analysis based on data from the European Committee of Central Balance Sheet Data Office's BACH Database (as of June 2015). For a description of the data collected by the respective central banks see the aforementioned BACH document in the bibliography (Chapter 6).

Figure 9: Bank debt in selected countries

Regarding the trend in bank financing, in conclusion it is possible to ask to what extent the decrease is a consequence of the financial market crisis. For that purpose

Figure 10 compares four different time periods. It is evident that this evaluation does not support the claim that the decline in bank financing was exclusively a consequence of the financial crisis. In fact, a downward trend can be observed as far back as 2003. This applies in particular to Germany, but is also the case for the group of market-based economies. It is only for the group of bank-based countries, with the exception of Germany, that there is a particularly significant drop in bank financing after the financial crisis. Overall, it must be noted that, in addition to problems in company financing which are related to the financial crisis and therefore to the accompanying increase in regulatory activity, additional reasons could be given which lead to the substitution of other financing sources for bank financing. Technological changes and shifts in market risks could also be significant factors.¹³



Comments: This figure presents the bank liabilities for European companies classified by Bureau van Dijk as "capital market-oriented", defined as the share of the total balance sheet in percent over the period from 1990-2014. The results for German firms are displayed first, then the situation in the rest of Europe, subdivided into market- or bank-based economies in accordance with the classification suggested by (Demirguc-Kunt & Levine, 1999). The criteria for the data are non-overindebted companies from outside the financial services sector, for which a certain amount of data (revenue, balance sheet, and equity capital) is available. The values displayed in light blue refer to all companies, whereas the total values refer to the companies that actually have access to the respective source of financing. Here, Europe consists of Austria, Belgium, Denmark, Finland, France, Great Britain, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and Switzerland. Of these countries, Denmark, Great Britain, the Netherlands, and Sweden are classified as market-based.

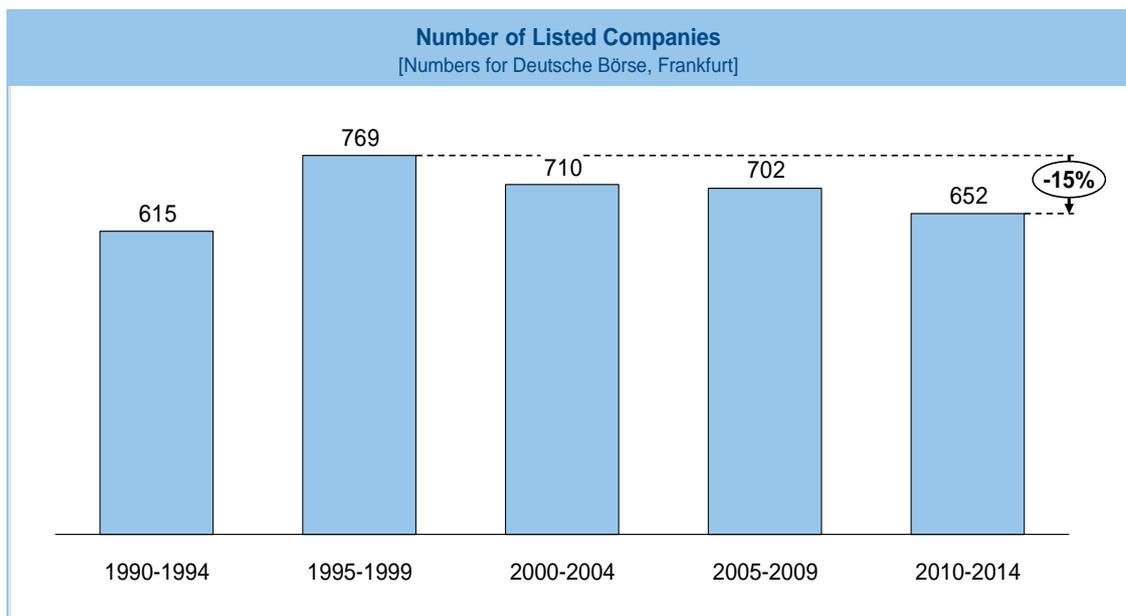
Source: Own analysis based on data from the Bureau van Dijk OSIRIS Database.

¹³ Regarding this, see (Kaserer & Rapp, 2014) for a more detailed discussion.

Figure 10: Development of bank debt over time

2.2 Capital market orientation of German companies

After discussing financing structure, we now turn our view to the capital market orientation of German companies. Figure 11 displays the number of German companies listed on the Deutsche Börse over the 1990-2014 period.



Comments: This figure represents the number of German companies listed on the Deutsche Börse over the 1990-2014 period. For the purposes of simplification, average values over the respective five-year period were displayed.

Source: Own analysis using data from the World Federation of Exchanges (WFE)

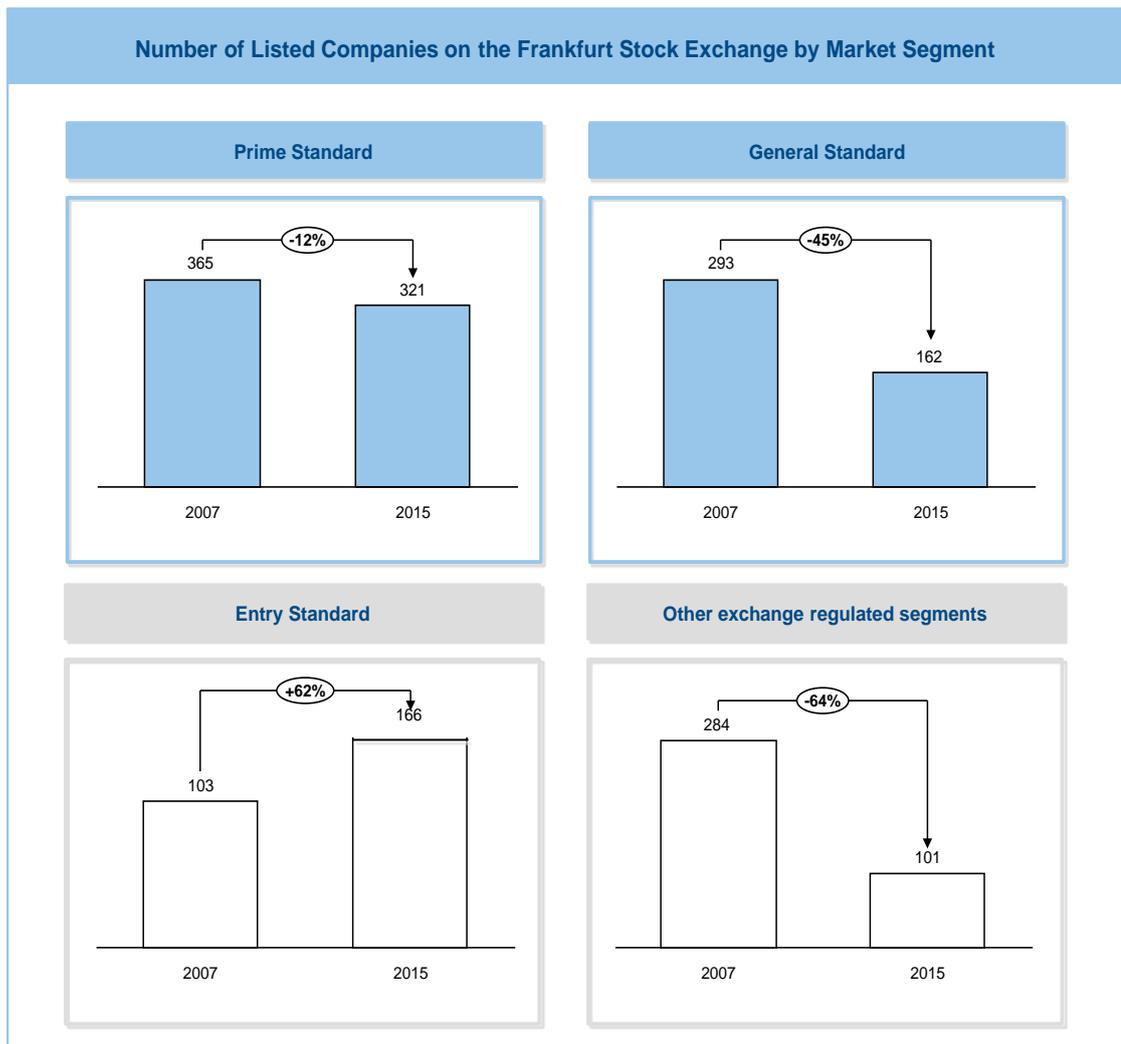
Figure 11: Number of listed companies on the Frankfurt Stock Exchange over time

It reflects that the number of listed German companies has declined since the end of the 1990s.¹⁴ This is tangibly expressed by the 15% decrease from 769 to 652 when the 2010-2014 period is compared to 1995-1999. This decline supports the hypothesis expressed above that the increase in German companies' equity was not particularly due to an increase in new equity capital; more likely, it was to a significant extent from the retention of profits. The distribution of this decline by market

¹⁴ An analysis of the data from the (WFE) derives similar results for other countries, among them the United States. Regarding this, also see (Doidge, Karolyi, & Stulz, 2015).

segment can be seen in Figure 12. Although a clear decrease in the regulated market (prime and general standard) stands out, the picture in exchange-regulated market segments can be assessed differently. It is evident that there is a clear increase in the number of listed companies in the Entry Standard. However, this decline can be explained by a restructuring of the Frankfurt Securities Market, which led to the closing of the so-called First Quotation Board at the end of 2012. Although several companies did in fact subsequently switch to the Entry Standard, there were, however, a considerable number of delistings. The extent to which these companies listed on the Over-the-Counter segment of other German stock exchanges cannot be determined from the available statistics. In addition, Figure 12 does not address the evolution of the Open Market segments on the regional exchanges. For example, on the Munich Stock Exchange since July 1, 2005, the medium-sized company segment has had access to m:access. According to the Munich Stock Exchange, there are currently 56 companies listed with a total market capitalization of around 12.6 billion euros. Within the framework of secondary listings, these companies are, for the most part, also listed on one of the exchange-regulated segments at the Frankfurt Stock Exchange.

It can also be definitively stated that there is undoubtedly an overall downward trend in the number of listed companies. On the other hand, in the exchange-regulated market segment a counter-trend can be discerned for the Entry Standard at the Frankfurt Stock Exchange. In that regard, the presumption that a slight trend towards delistings from regulated markets is connected to the high disclosure and transparency mandates, cannot be completely dismissed out of hand. The role played by the prospectus requirements alone is not completely clear, because the Frankfurt Stock Exchange has since 2012 also required a prospectus for being listed at the Entry Standard.

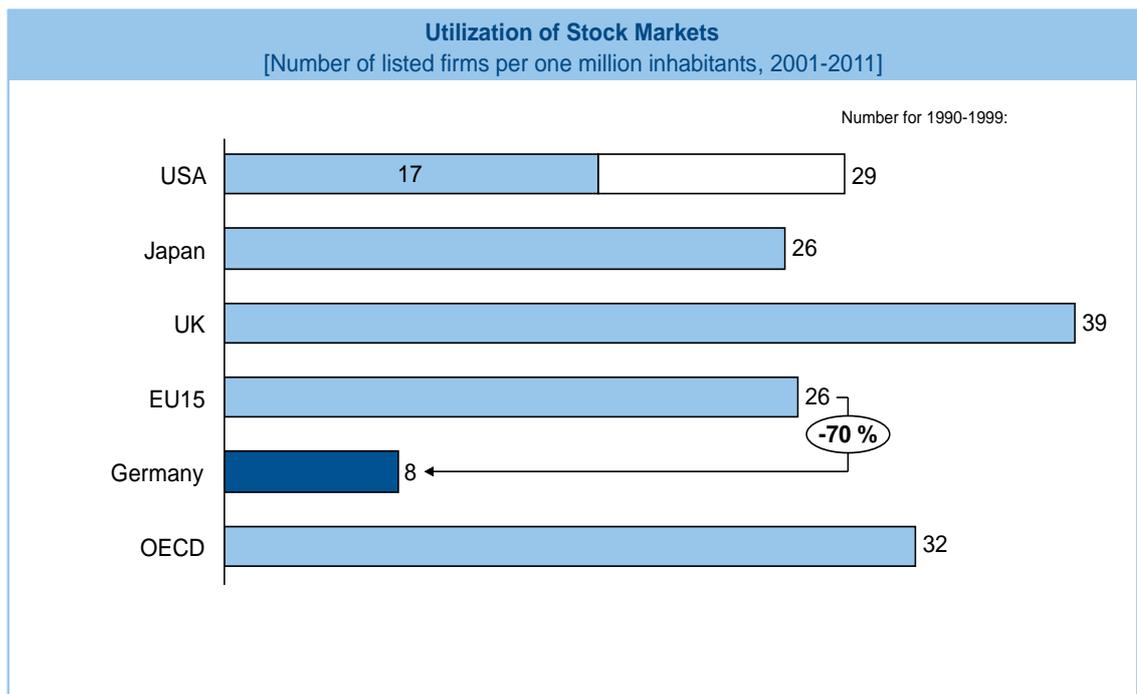


Comments: This figure presents the number of companies whose shares traded in the respective market segments of the Frankfurt Stock Exchange at the corresponding times. The OTC was restructured in 2012, which particularly affected the First Quotation Board and resulted in a significant decline in the number of companies whose shares were listed on the OTC market of the Frankfurt Stock Exchange.

Source: Data for 2007 comes from the DAI Factbook 2013, data from the end of September 2015 comes from the Deutsche Börse.

Figure 12: Number of listed companies on the Frankfurt Stock Exchange by market segment

In comparison to other countries, Germany has relatively few listed companies. This is illustrated in Figure 13. If the "Listed companies per 1 million inhabitants" index is used as a benchmark, Germany appears far behind the US and Japan, as well as the average OECD or EU-15 country. The gap amounts to around 70% in an intra-European comparison.



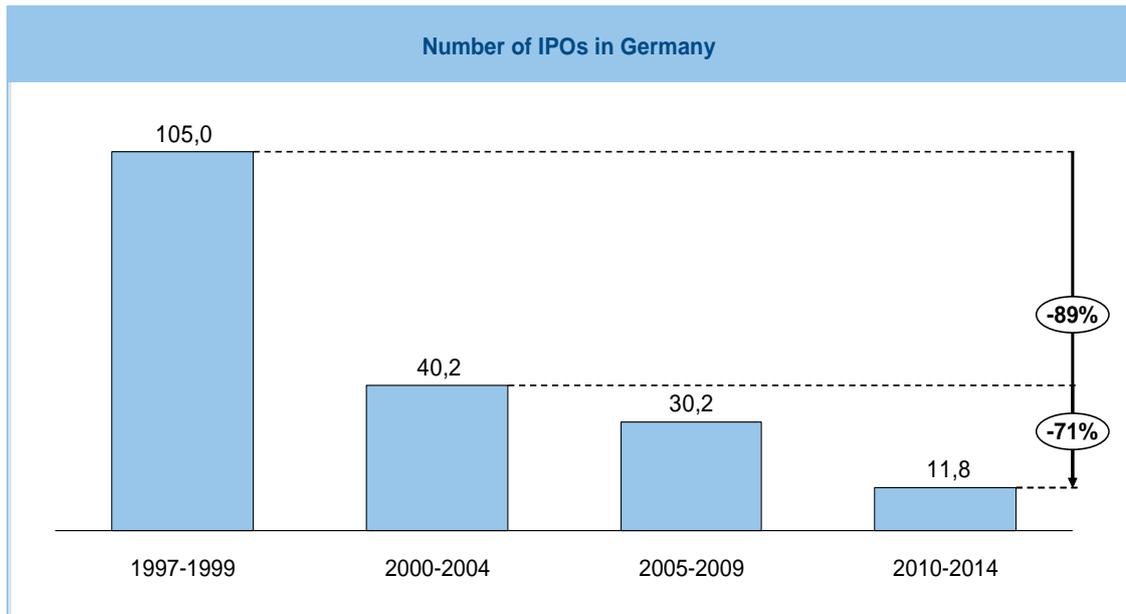
Comments: The graph depicts the number of listed companies per 1 million inhabitants for Germany, the United States, Japan, the United Kingdom, the EU 15, and the OECD over the 2001-2011 period. A transnational average is indicated for the EU 15 and the OECD.

Source: Own analysis based on the Financial Development and Structure Dataset.

Figure 13: Utilization of stock markets by German companies in international comparison

The reluctance of German firms to orient themselves towards the utilization of stock markets is expressed by a low and, since the end of the 1990s, declining number of listed companies. Figure 14 indicates that the average number of IPOs has fallen back from over 100 per year at the end of the 1990s to little more than 10 per year.

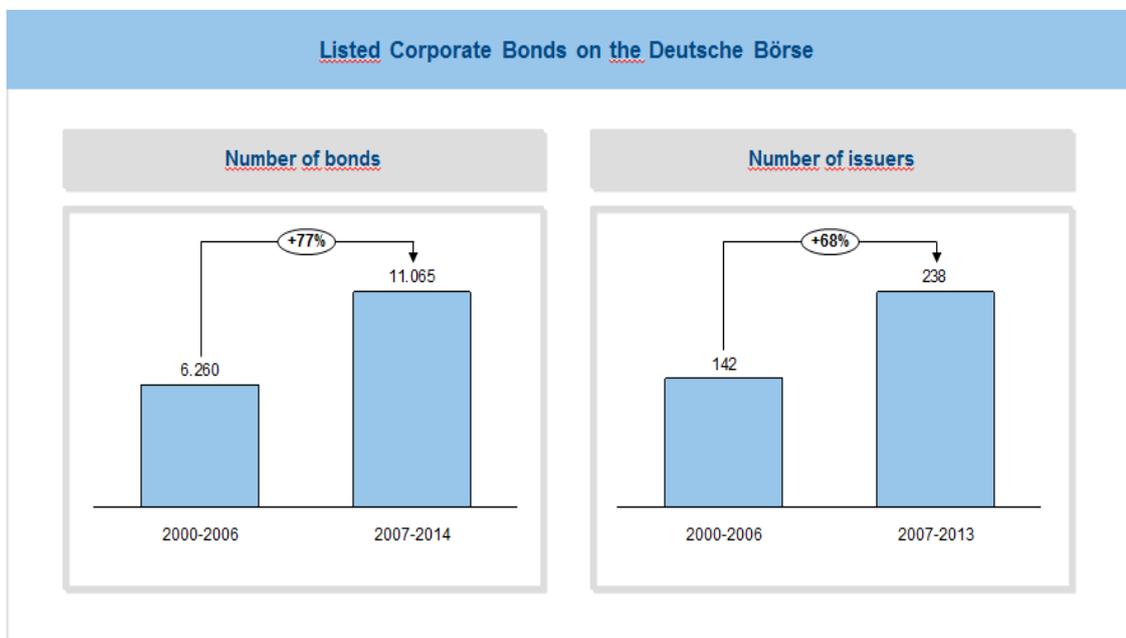
However, when observing market-traded bonds a somewhat different picture is evident: in the 2000-2014 period, the number of private issuers significantly increased as well as the number of bonds traded by these issuers. This matches the above mentioned finding of a trend among German companies towards a strong regression in the use of capital market-focused external financing instruments.



Comments: This figure depicts the average number of IPOs in Germany.

Source: Own analysis based on data from various sources (values from 1997-2013: Leaflet "Financial Advisory quoted from DAI " (2014), Growth engine fortifying the stock exchange: mobilize capital- relax regulation (Wachstumsmotor Börse stärken: Kapital mobilisieren – Regulierung entschlacken). German Equities Institute (Deutschen Aktieninstituts) Position Paper from 16 December 2014. 2014 values " Value for Deutsche Börse Prime and General Standard" (Wert für Deutsche Börse Prime und General Standard): PWC (2015), German IPO market (Emissionsmarkt Deutschland) - Q4-2014 Year in Review (Jahresrückblick) [Online: http://www.pwc.de/de/finanzierung/assets/Emissionsmarkt_Deutschland_Q4_2014.pdf]).

Figure 14: Number of IPOs in Germany



Comments: The number of bonds traded on Deutsche Börse as well as the number of private sector issuers. Due to data problems in the time series, the graphs are limited to the years 2000-2013, or, as the case may be, 2014.

Source: World Federation of Exchanges (WFE), own analysis.

Figure 15: Listed corporate bonds

2.3 Financial market structure in Germany

The previous analyses have given an overview of financing decisions at the company level which were of a microeconomic nature. However, financing decisions made by companies can also be observed in the aggregate. Depending on how strongly companies utilize loan financing or a capital market-related type of financing, a difference in the size of the banking sector, or as the case may be, the capital markets should be observable. Of course, the fact that the size of both sectors is also influenced by financial decisions made by governments and private households must also be taken into account. The higher the level of sovereign debt and the more it is financed through publicly-traded bonds, the larger the capital market will be. Depending on its extent and organization, private property mortgage financing also affects the size of banking- and capital markets.

Due to the fact that our focus is on company financing, we will disregard the effects of sovereign financing decisions. In concrete terms, this means that government bonds will not be considered when the size of the capital market is measured. The financing decisions made by households unfortunately cannot be disregarded so easily because a demarcation with commercial real estate financing is difficult. We will, therefore, also take the financing activities of private households into account.¹⁵

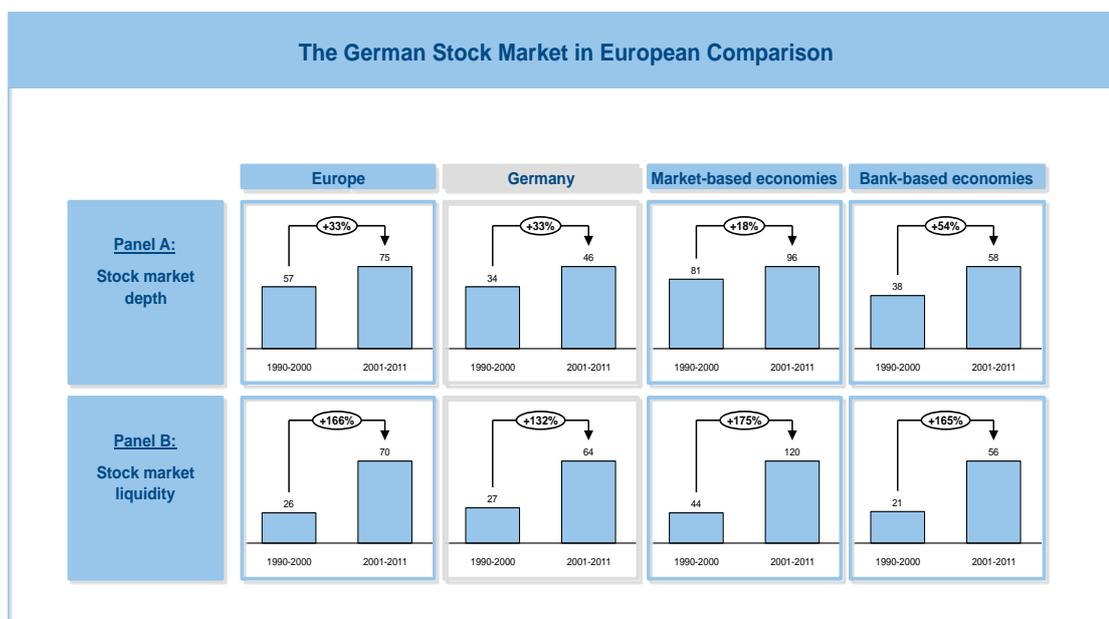
In this manner we can, using private financing activities (all non-governmental sectors), convey a conditional financial market structure. It gives information about the importance of the capital market, which is understood as the sum of the equity- and bond markets, relative to the significance of the banking sector as a financing source for companies and private households.

2.3.1 The stock market

We will begin by looking at the equity market. Here two figures are of particular interest: the size or the *depth of the market*, understood as the aggregate market capitalization, and the liquidity of the market, which is measured by trading activity.

¹⁵ For a comprehensive and detailed analysis of the structure of Germany's financial markets compared to its European peers, see (Beck et al., 2015).

Figure 16 analyzes the development and status the quo of the German stock market along both of these dimensions within the context of a European-wide comparison over the years 1990-2011.¹⁶ To ensure comparability, all sizes are expressed as a percentage of Gross Domestic Product (GDP).



Comments: The diagram displays the development in European stock markets with respect to depth, calculated using market capitalization, and liquidity, calculated using trading volumes (each as a percentage of GDP) during the 1990-2011 period. The overall European situation is presented first and then Germany's, followed by the situation in market- or bank-based European countries. The survey comprises 15 European countries (the EU members prior to April 2004) and the distinction between market- and bank-based countries conforms to the classification presented in (Demirgüç-Kunt & Levine, 1999).

Source: Own analysis based on the World Bank-provided "Financial Development and Structure Dataset" by authors Asli Demirgüç-Kunt, Martin Čihák, Erik Feyen, Thorsten Beck und Ross Levine.

Figure 16: Development of the German stock market in European comparison

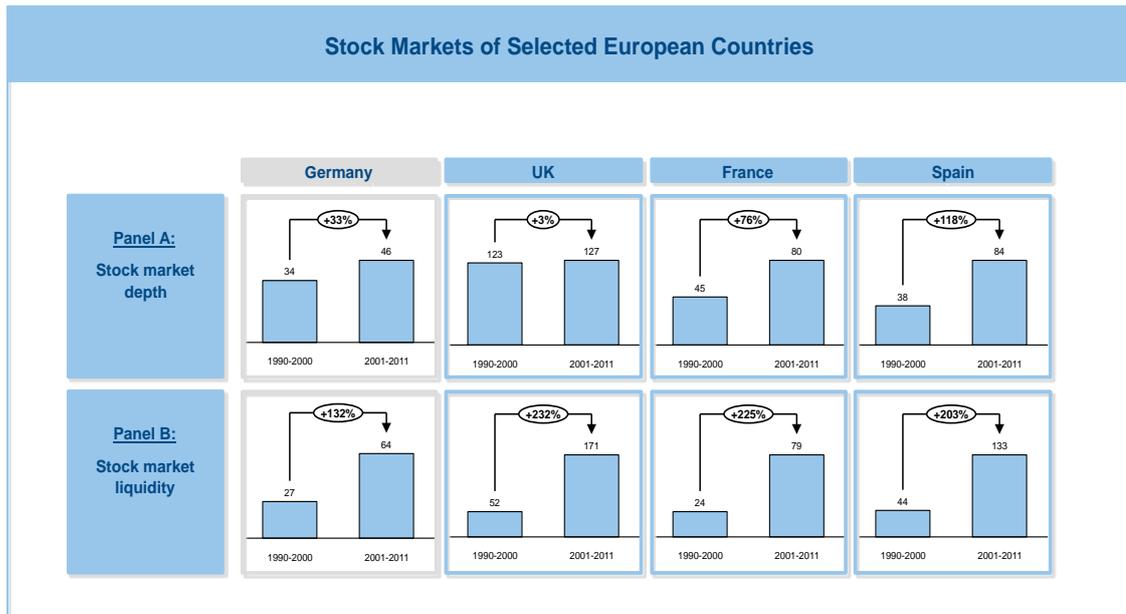
First of all, it shows that, with respect to size and liquidity, European stock markets clearly grew during the observation period. The average depth of the stock market rose from 57 to 75 percent of GDP (33 percent growth), and liquidity from 26 to 70 percent (a 166 percent increase). Germany lies in the middle, after a low starting point. The depth of its stock market increased from 34 to 46 percent of GDP (a rise of 33 percent), and liquidity from 27 to 64 percent (an increase of 132 percent). It is interesting to note that bank-oriented European countries started from a very low

¹⁶ The restriction to a period ending in 2011 is due to data availability.

level with regards to both dimensions, yet experienced significantly higher growth rates in the depth of their stock markets. The average stock market in bank-based countries grew approximately 54 percent in comparison with 18 percent in the market-based countries.

In addition, the enormous growth in liquidity in all countries, as measured by trading volume on the stock exchanges, is notable. Germany also saw a very strong growth in liquidity, although its growth rate is below the international average

This analysis is deepened further in Figure 17 by comparing Germany's stock market depth with that of Great Britain, France, and Spain. It illustrates that though Germany had medium-level growth, it experienced below-average growth with respect to liquidity. This led Germany having a stock market whose capitalization was 46% of GDP during the 2001-2011 time period. In Great Britain and France, these values were, respectively, 127 and 80%. Spain itself has a relatively larger equity market than Germany. Similar results can be observed with regards to stock market liquidity. This finding is at least partially undermined by the analysis of the market concentration in individual markets presented below in Figure 18. It can be seen that Germany has a relatively high level of market concentration as measured by the market capitalization of the 10 largest, or as the case may be, liquid stocks. Taken together, these findings support the hypothesis that there is definitely only a small number of large companies in Germany that make heavy use of the stock market. On the other hand, there is a large number of medium-sized and small companies that are either unlisted or, if they are listed, are overshadowed by the larger companies.

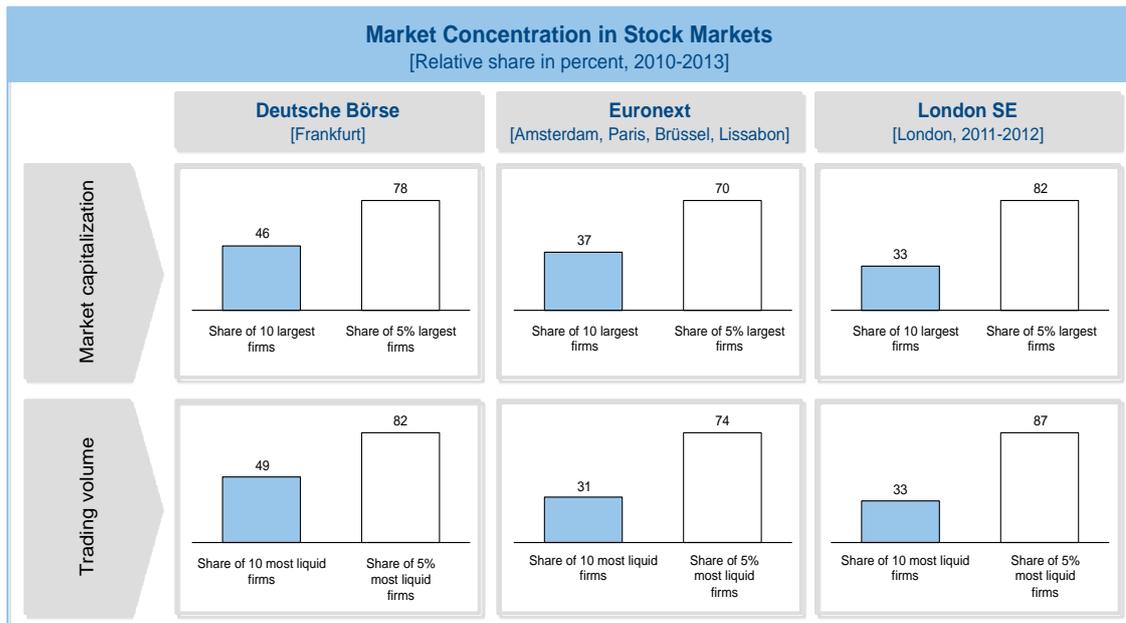


Comments: This figure displays the development in European equity markets with respect to depth, calculated using market capitalization, and liquidity, calculated using trading volumes (each as a percentage of GDP) during the 1990-2011 period.

Source: Own analysis based on the World Bank-provided "Financial Development and Structure Dataset" by authors Asli Demirgüç-Kunt, Martin Čihák, Erik Feyen, Thorsten Beck und Ross Levine

Figure 17: Development of stock markets in selected European countries

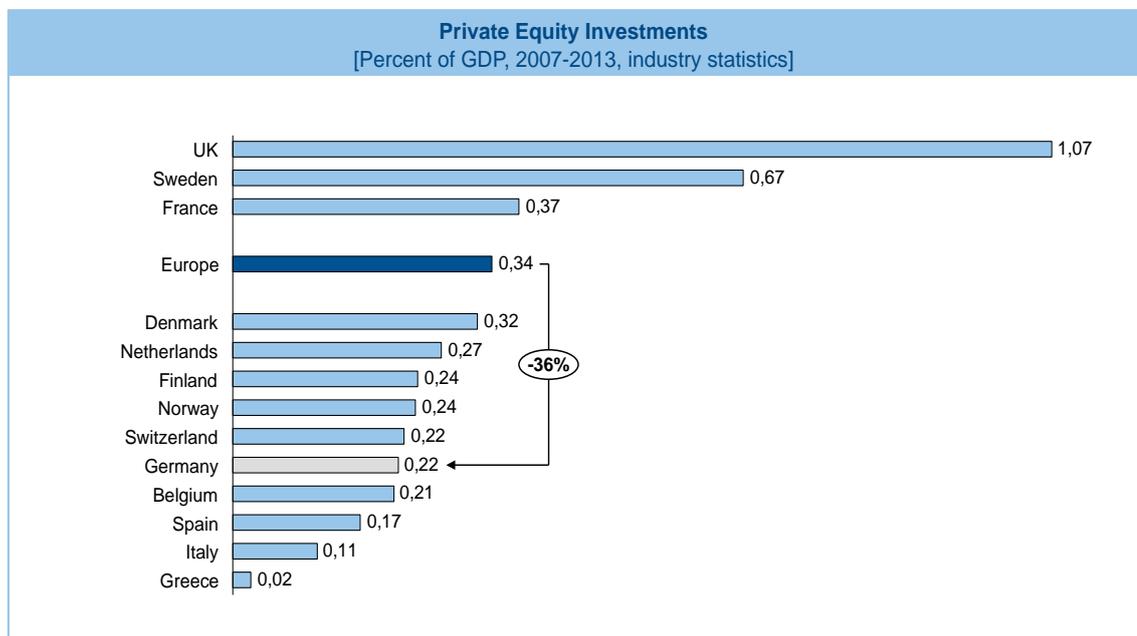
Moreover, it is hardly surprising that the lack of size in the regulated secondary market for equity capital is also reflected in a lack of size for private equity. For this purpose, a brief glance at private equity follows. Figure 19 presents total private equity investments for selected countries over the 2007-2013 period. The relative underdevelopment of the German market is also indicated here: at 0.22% of GDP, the investment volume of Germany-based private equity investors is only a fifth of the corresponding volume in Great Britain. Sweden and France also have much larger markets for private equity.



Comments: The figure presents the concentration on different exchanges (Deutsche Börse, Euronext, London SE) for the years 2010-2013 based on market capitalization and trading volumes. In both cases, the share held by the 10 largest companies as well as the 5% most important companies are examined.

Source: Own analysis based on data from the World Federation of Exchanges (WFE).

Figure 18: Market concentration in stock markets



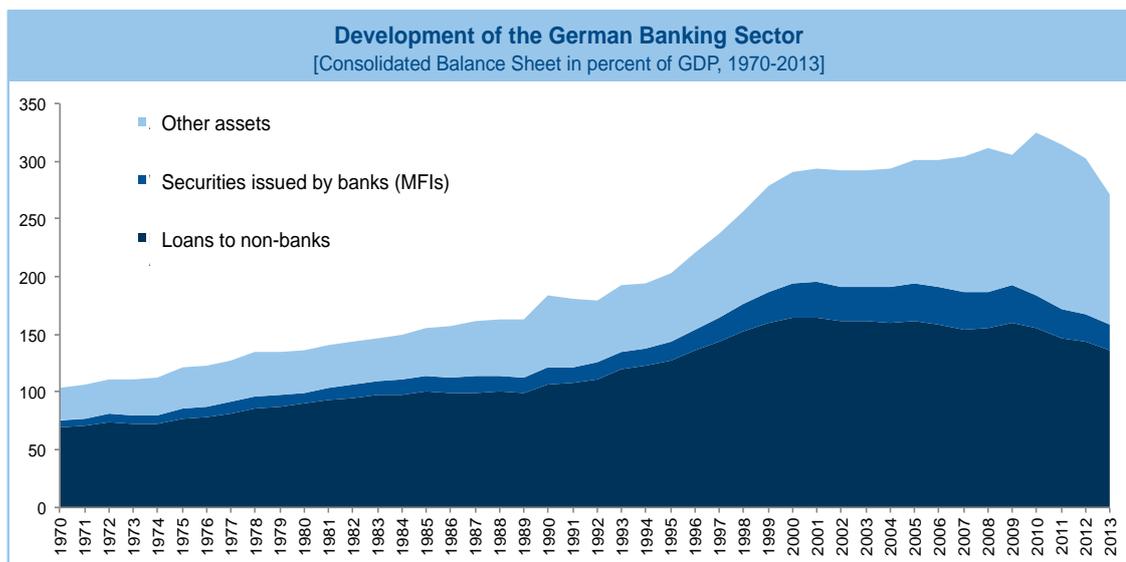
Comments: This figure presents private equity investments (private equity, incl. venture capital) for selected countries using the amount of funds invested by investors domiciled in the country relative to Gross Domestic Product (GDP).

Source: Own analysis based on data from the EVCA.

Figure 19: Private Equity Investments

2.3.2 Banks and bond markets

A fundamental source of company financing is loans from financial institutions, particularly banks. Figure 20 displays the development of the German banking market by aggregated total balance sheets (by percent of GDP) from 1970 until 2013.



Comments: This figure illustrates the development of the German banking sector from 1970 to 2013 using the consolidated total balance sheets of financial institutions (in percent of GDP).

Source: Own analysis based on data from the German Bundesbank and the World Bank.

Figure 20: Development of the German banking sector

First of all, it shows that the aggregate total balance sheets of German banks increased relatively steadily until the year 2010. Nevertheless, a distinction can be drawn between various components of a bank's balance sheet, which reflect that the individual components can develop divergently over time. Taking into consideration, for example, *loans to non-banks*, i.e., in particular company loans (but also loans to private households), we observe that they reached their apex at 165 percent of GDP in the year 2000 and have since then fallen back approximately 17 percent to 136 percent of GDP in 2013.¹⁷ Insofar as this reflects the finding presented in Section 2.1 of a fallback in bank financing at German firms, we can show at the same time that

¹⁷ In contrast, other assets have increased sharply, e.g., derivatives positions. Also compare in this regard, for example (Langfield & Pagano, 2015).

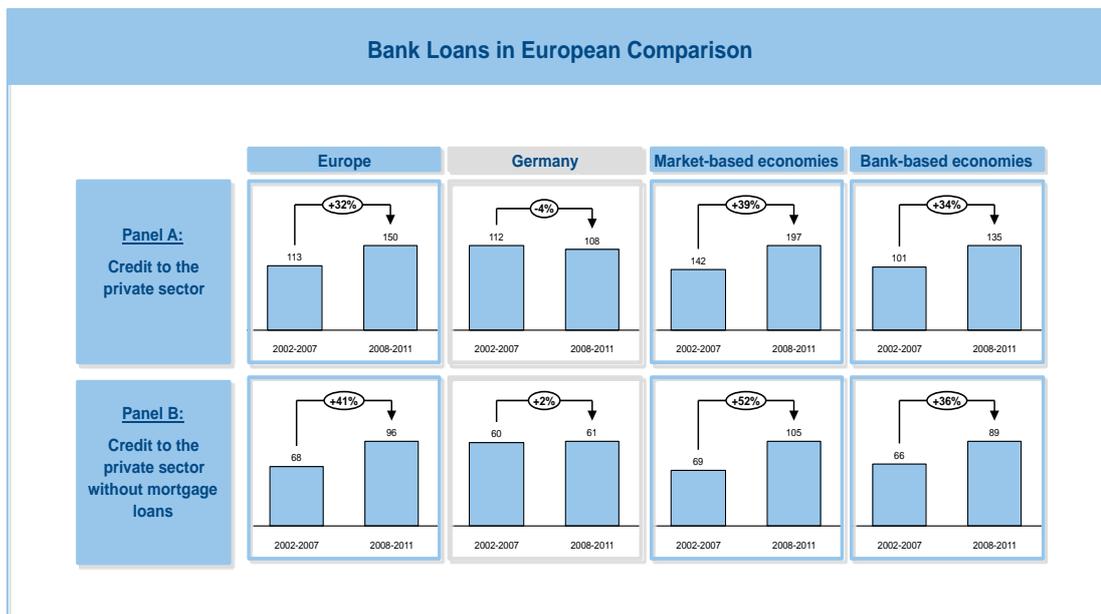
total assets managed by German banks have nevertheless rapidly grown. However, the growth was not driven by the extending company loans, rather in particular by the increase in risk transfer instruments (derivatives).

The following two graphs (Figure 21 and Figure 22) place this observation into a European context and take into account that the bank balance sheet components analyzed above comprise "Loans to non-banks", along with business loans and, in particular, mortgage loans, which have a considerable volume. To establish international comparability, the benchmark is not the Bundesbank-designated "Loans to non-banks" analyzed above, instead it is loans to the private sector.¹⁸

Two of these results are worth noting. First, it is evident that, with regards to company financing, bank loans also play a comparably large – if not even greater – role in countries with capital market-oriented company financing than in countries with traditional bank-based financing. This is a crucial finding, because it shows that capital market- and bank-based financing should be seen as complements rather than substitutes. If the banks have the option of re-financing bank loans in sufficient mass via the capital market, they are also willing to allocate them under favorable conditions. The second indicates that, with the exception of Germany, in most European countries there was a not-inconsiderable growth in bank loans directly after the financial crisis. This is generally consistent with the finding in Section 2.1.4, which reflected that fallback in bank financing for German firms was more pronounced than in other European countries. What is of particular interest here is that there was already an especially strong increase in bank loans in the 2008-2011 period. In addition to the fact that these countries were possibly affected to a lesser degree by the financial market- and euro crises than the countries with bank-oriented financing, the factor that may play a role here is that in these countries, bank re-financing via the capital market is clearly more pronounced. Because the availability of these re-financing options returned shortly after the crisis, the

¹⁸ It should be noted that the analysis of the base data set does not take the German specialty of promissory notes into account. It is possible that any distortions are in fact low, if the analysis of (Jensen, Tappy, & Fichtner, 2015) is taken at face value. The annual issue volume of corporate promissory notes during the period from 2012 to 2014 comprised around 0.4 percent of GDP. The outstanding volume of corporate promissory notes at the beginning of 2015 was estimated by the authors to be 2.4 percent of GDP.

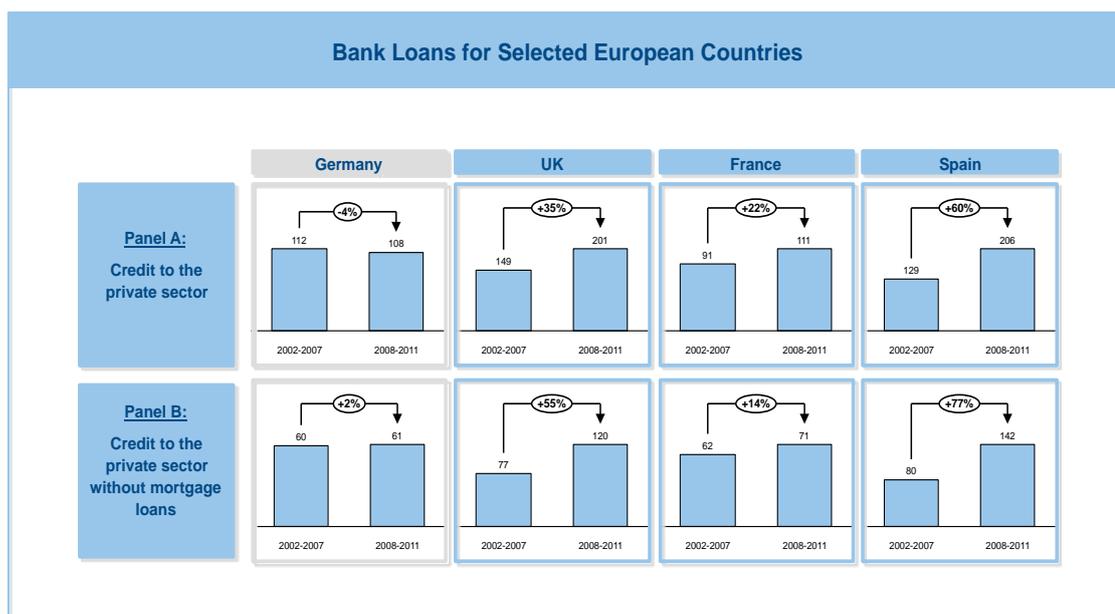
readiness of banks to extend credit to companies may have been greater than in countries where these markets were less absorptive.



Comments: This figures presents the development of loan volumes both with and without mortgage loans to the private sector (each as a percentage of GDP) during the years 2002-2011. The overall European situation is presented first and then Germany's as well as in market- or bank-based European countries. The survey comprises 15 European countries (the EU members prior to April 2004) and the distinction between market- and bank-based countries conforms to the classification presented in (Demirguc-Kunt & Levine, 1999).

Source: Own analysis based on data from the European Mortgage Foundation and the World Bank's "Financial Development and Structure Dataset" from authors Aslı Demirgüç-Kunt, Martin Čihák, Erik Feyen, Thorsten Beck, and Ross Levine.

Figure 21: Bank loans in European comparison

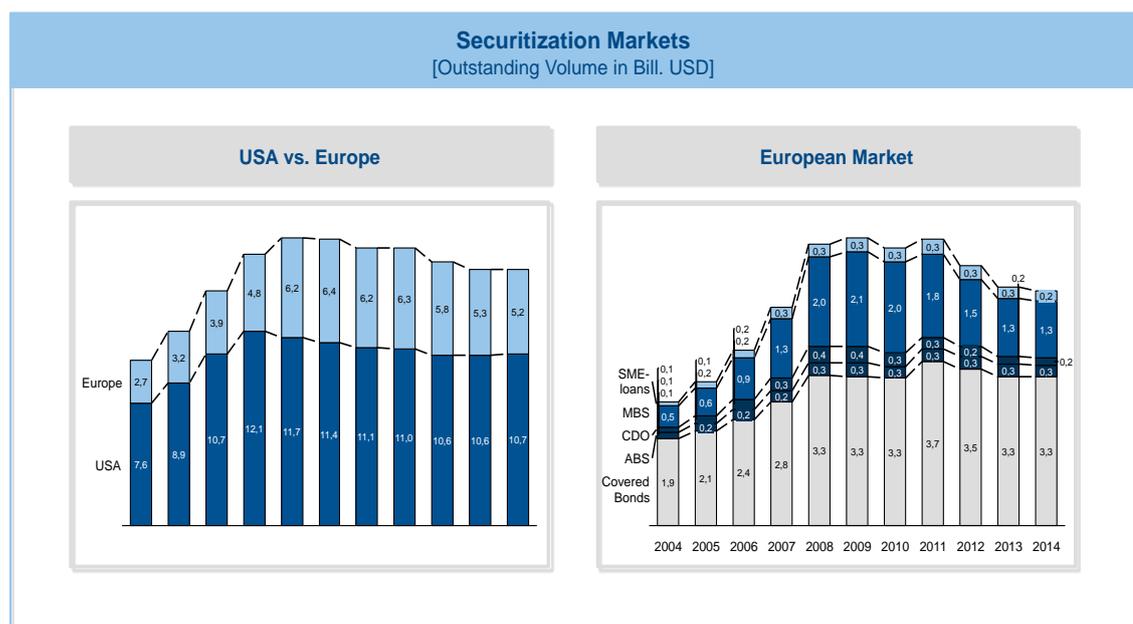


Comments: The figure displays the development of loan volumes both with and without mortgage loans to the private sector for selected European countries (each as a percentage of GDP) during the years 2002-2011.

Source: Own analysis based on data from the European Mortgage Foundation and the World Bank's "Financial Development and Structure Dataset" from authors Asli Demirgüç-Kunt, Martin Čihák, Erik Feyen, Thorsten Beck, and Ross Levine.

Figure 22: Bank loans for selected European countries

The last observation indirectly refers to the importance of the securitization market as an instrument of the complementarity of the banking sector and the capital market. It can therefore be noted that the securitization market, beyond covered bonds such as *Pfandbriefe* (German mortgage bonds) which are known since a very long time, has really emerged only since the early 2000s. As displayed in Figure 23, the market grew strongly until 2008, but has declined sharply since then. In comparison to the US, we see on one hand that the securitization market in Europe is much smaller, and on the other hand that retrenchment since the financial crisis has been much more pronounced. The outstanding volume of covered bonds in 2014 was itself was no higher than in 2008. Taking into consideration the aforementioned complementarity between the capital market and banking sectors, this is a dangerous development which could result in restricted refinancing options for the banking sector. In addition to this, the securitization market in Europe is strongly dominated by securitization which is unrelated to company financing, for example, car financing or mortgage loans, whereas securitization from company loans continues to constitute a very small portion.

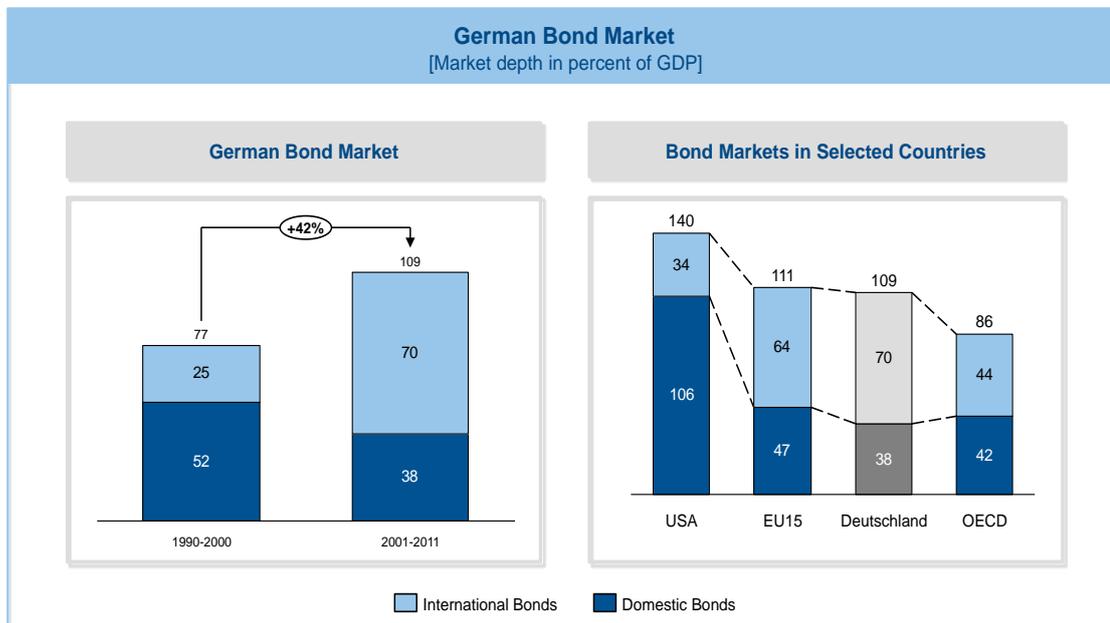


Comments: This figure presents the outstanding volume of securitized instruments (in billions of US dollars) in the United States and Europe (including covered bonds). The development in the overall market for both regions is displayed on the left and on

the right the European market is segmented by various types of securities.

Source: Own analysis based on data from the SIFMA/AFME/ECBC.

Figure 23: Development of the securitization markets



Comments: This figure illustrates the development of the German bond market (excluding sovereign bonds) measured as a percentage of GDP over the 1990-2011 period and makes an international comparison. The market depth is defined as the aggregate bond volume in percent of GDP. EU15 and OECD refer to the average country. OECD countries to the extent that data is available.

Source: Own analysis based on data from the World Bank’s Global Financial Development Dataset.

Figure 24: Development of the German bond market

It is finally time to take a glance at bond markets. When considering the market for these instruments, as presented in Figure 24, two essential results are evident. On one hand, there has been substantial growth in the German market over the past 25 years, which has been supported in particular by bonds issued internationally, while on the other side, the development of the German bond market is only average in comparison with the other European countries. It is worth noticing that the size of this market is very much due to bonds issued by bank, including mortgage bonds and securitizations. However, this finding is consistent with the above mentioned development of an increasing role for bonds in corporate finance.

2.4 Preliminary conclusion

The following statements can be made as a preliminary conclusion regarding the empirical observations presented in this section.

- There is definitely an observable trend in Germany towards greater equity financing. The **equity ratio** of German companies has risen approximately 10 percentage points. This trend is even more pronounced for SMEs than for large companies.
- At the same time it has also been demonstrated that the importance of bank loans and pension reserves has declined. The share financed via capital-market-oriented debt financing instruments has still grown, but only for capital market-related firms. The majority of German companies still do not use this financing instrument. On the contrary, bank financing continues to be the central pillar of external financing.
- The finding of an increasing equity financing cannot be interpreted to the effect that a significant expansion of capital market-based financing has come to German firms. It can instead be assumed that the largest share of the growth in equity capital is derived from retained earnings. Overall, it must be stated there has not been a massive change to the lack of a capital market orientation in German companies within the past 15 years.
- In this regard, German companies are less unique than commonly claimed. The equity capital of companies in countries with a stronger capital market orientation, such as Great Britain or the Netherlands, is indeed actually on average higher. The significance of the differences concerning debt securities on one side and bank loans on the other is not inordinately large. In the survey of capital-market related companies we reviewed, the share of bank liabilities on the balance sheets of German companies from 2002 to 2014 was almost 8 percent on average, which was similar in magnitude to the countries with capital market-based financing. Before the financial crisis, this figure was 10 percent, which is hardly any different from countries with greater capital market-oriented financing. However, if SMEs are analyzed it is observed that the share of bank

loans for German SMEs is between 27 and 31 percent, whereas it ranged from 17 to 25 percent for companies from France, Spain, and Italy.

- Similar results are obtained when viewed from a general economic perspective. This indicates that financial- and capital markets have grown strongly in the past 15 years not only in Germany, but also in other EU countries. This is especially true for stock markets, although Germany clearly lags here in international comparisons. Because we have utilized a 10-year average for this analysis, it is unlikely that this result was solely caused by fluctuating valuations. It is, however, noteworthy that the countries with capital market-based company financing had already recorded stronger growth in business loans so that their volume measured as a percentage of GDP is now clearly over the level for Germany. We interpret this to mean that loan- and capital markets complement each other so that growth in one sector is hardly possible without growth in the other.

3 Long-term financing and the Capital Markets Union

3.1 Essential points of the Capital Markets Union

3.1.1 Green Paper on the Capital Markets Union

On February 18, 2015, the Commission published the Green paper on Building a CMU and the associated plan of action was made public on September 30, 2015.¹⁹ This is part of a larger initiative to improve the financing conditions in the Single Market, in particular with regard to long-term financing. This ongoing initiative is described in greater detail in Section 3.2. The entire initiative is sustained by the recognition that, in international comparisons, European companies are to an above-average extent financed by the banking sector.

Due to the vulnerability of the banking sector which became evident during the financial crisis as well as the awareness that the regulatory measures taken in the aftermath of the financial crisis seriously impair the capability of the banking sector

¹⁹ See the European Commission, Green Paper Building a Capital Markets Union COM(2015) 63 final, from 18 February 2015. The Action Plan is discussed in Section 0.

to provide long-term financing, the effort has not only been anchored in the Commission to improve the framework conditions for capital market-based corporate finance.

The Commission specifically justifies the necessity of creating a CMU to strengthen the development and integration of capital markets with the aim of (i) improving access to financial resources for businesses (especially SMEs), (ii) an expansion and diversification of sources of financing, as well as (iii) the creation of more efficient capital- and financial markets.²⁰ The Commission further identified numerous potential shortcomings, several of which will be referred to in the following section. The Commission simultaneously stipulated short-term steps that can be taken as well as long-term measures intended to promote the long-term development and integration of European capital markets.

Insofar as short-term measures are concerned, four specific stipulations were made. First, a review should be conducted to examine the extent to which the prerequisites for access to the capital market mentioned in the Prospectus Directive contain unnecessary obstacles for companies. To accomplish this, a second consultation was conducted in parallel to the one for the Green Paper on Building a CMU.²¹

Second, the availability of credit-relevant information about SMEs should be improved, so that it becomes easier for these companies to obtain lines of credit outside the banking sector. Third, a consultation was undertaken to implement a framework for simple, transparent, and standardized securitizations in order to sustainably strengthen the market for high-value securitizations.²² This will be accompanied by the adoption of the relevant delegated legislation within the framework of Solvency II and the CRR. Fourth, company access to the unregulated capital market should also be facilitated. In this case, however, the Commission appears less likely to enact legal measures, instead opting to conduct an information

²⁰ See the European Commission, Green Paper Building a Capital Markets Union COM(2015) 63 final, from 18 February 2015. The Action Plan is discussed in Section 0.

²¹ Cf. European Commission, Consultation Document – Review of the Prospectus Directive, 18th February 2015.

²² Cf. European Commission, Consultation Document – An EU framework for simple, transparent and standardised securitisation, 18 February 2015.

campaign. In fact, a handbook created by trade associations and industry representatives for pan-European private placements was published in February 2015.²³ It remains to be seen if the initiative will be successful.

As regards the measures which have a long-term orientation, the Commission mentions, among other things, the following points. First, it indicates that gaining access to capital market financing is especially difficult for SMEs as well as young and innovative companies. Because direct capital market access appears to be unrealistic for these companies for lot size reasons alone, the necessity of greater integration of European markets for covered bonds (securitization) is specifically referenced. Insofar as banks can rapidly and cost-effectively refinance via this market, this competitive advantage will be passed on to the companies, and they would therefore benefit from indirect access to the market. Furthermore, a liquid market for corporate bonds could ensure that this financing instrument would be of interest for at least mid-sized companies. These bonds could then be traded on non EU-regulated, albeit EU-wide integrated, markets. From the Commission's perspective, one argument against this development is the fact that SMEs which are not yet capital market-oriented mostly still prepare their balance sheets in accordance with national accounting standards. This would conflict with the standardization of corporate bonds and could deter investors. The question then arises whether the development of common accounting standards for SMEs would be appropriate.

Second, the Commission accurately indicates that the relatively small size of capital markets in international comparison is also a consequence of what is still in many Member States a funded retirement pension system that remains underdeveloped. This is particularly applicable to equity markets, because institutional investors often only invest funds in these markets with great reluctance, not least for regulatory reasons.

As a result, these markets lack both size and liquidity, which represents an additional hurdle in the allocation of capital as seen from the perspective of institutional investors. Furthermore, this situation also affects risk capital financing (e.g., venture

²³ Cf. International Capital Market Association, Pan-European Corporate Private Placement Market Guide, February 2015.

capital), which is significantly underdeveloped in many European countries. Overall, measures in multiple areas should be examined here. The question is how the funds collected for retirement pensions can be augmented as well as how institutional investors can be encouraged to invest in these funds, especially in equity markets. At the same time, we should examine how to encourage small investors to more strongly consider capital market products for their own portfolios. In addition, specific further measures that can strengthen the markets for equity capital should be considered. What is meant here in particular is alternate forms of financing, such as crowdfunding or Peer-to-Peer Financing. Should this be successful, there would be a positive impact on the provision of risk capital.

Third, the Commission is considering a number of measures with an eye toward improving the functioning of capital- and financial markets. A potential cause of the deficient size and liquidity of equity and bond markets could be their excessive fragmentation, in both regulatory and organizational (e.g., trade infrastructure) respects. It actually must be noted that in the area of corporate- and insolvency law national rules have only to a small extent been harmonized EU-wide. This similarly applies to tax regulations. Overall, these amount to considerable hurdles for global investors which conflict with an integrated capital market. The Commission also notes the interaction of retirement pension systems and capital market development, although at the EU level, legislators have their hands tied due to the anchoring of retirement pension systems at the national level. Nevertheless, the introduction of standardized European retirement pensions is currently under consideration.

3.1.2 Action Plan for the Capital Markets Union

On September 30, 2015, the Commission published its action plan, which, based on the consultations conducted within the framework of the Green Paper, included suggestions for specific legislative measures. The latter suggestions are related to the oversight of securitization and the equity requirements for certain asset classes in accordance with Solvency II. In addition, further initiatives within the framework of the CMU were announced. A brief overview of these measures follows.

3.1.2.1 Legislative Proposal for loan securitizations

The Commission has proposed a uniform legal framework for securitizations.²⁴ The centerpiece of this proposal is the creation of an unambiguous legal basis for simple, transparent, and standardized securitization, or STS securitizations. The hope is for an augmented willingness on the part of institutional investors to purchase such securitization instruments, as well as an increase in the attractiveness of this instrument from the perspective of the originators or sponsors. Due to the fact that one of the conditions for an STS securitization is for it to be a "true sale"-securitization, an effective transfer of property rights to the underlying claims to a special purpose vehicle with an effective right of access for a creditor in the event of insolvency on the part of the originator. The receivables pool must concurrently contain homogenous assets; securitizations are not permitted to be part of the receivables pool (no re-securitization). The credit analysis and rating must comply with clearly-defined criteria with respect to the provision of loans underlying the securitization. Originators must ensure that they hold a first loss piece of 5%. Likewise, the investors must have sufficient data for a suitable assessment of the credit risk of the receivables pool. Subject to some additional conditions, ABCP securitization can also be classified as a STS securitization.

This measure is accompanied by a second proposal amending the regulatory treatment of STS securitizations in accordance with the CRR.²⁵ Here, in particular, is a reduction in the capital adequacy of STS securitizations assured. In the future, the best case is that the standard credit risk approach leads to a risk weight of 10%, whereas it previously, in accordance with Article 251 of the CRR, had to be at least 20%. Furthermore, the capital requirement is eased for the securitization of SME loans. With regards to the liquidity requirement for securitization, the Commission's proposal contains no relief from the status quo.

²⁴ Proposal for a directive by the European Parliament and Council establishing common rules for securitization COM(2015) 472 final, from 30 September 2015.

²⁵ Proposal for a directive by the European Parliament and Council establishing common rules for securitization No. 575/2013 COM(2015) 473 final, from 30 September 2015.

3.1.2.2 Infrastructure as a new asset class

The second concrete proposal from the Commission is located in a supplement to the Solvency II regulation²⁶ to the effect that a new asset class, "qualified infrastructure" (qualifying infrastructure investments), will be introduced.²⁷ These are investments in infrastructure in which there are a number of qualifying protective measures for both debt financing and equity investors. In this case, the capital requirement for equity-based infrastructure investment is set in most cases at 30%; previously the requirement was set at the same level as for so-called Type 1 shares equal to 39%. The capital requirement for debt-based infrastructure investments will likewise also be reduced in comparison to other debt financing instruments. A further adjustment is classifying equity investments which are held by European Long-Term Investment Funds (ELTIFs)²⁸ as Type 1 shares, regardless of whether they are traded on a regulated market. They would then be subject to a capital requirement of 39%. Due to the fact that the investment is explicitly intended for ELTIFs, it's an indirect concession to investments in private equity. In most cases, such investments are indeed treated as Type 2 shares and are thus subject to a capital requirement of 49%. This will in the future also explicitly apply to shares traded on MTFs, i.e., outside of the regulated market. Therefore, shares traded on growth segments such as the Entry Standard in Germany would also be affected.

3.1.2.3 Additional measures

Regarding these two specific proposals, the Action Plan contains a number of other announced measures that are largely consistent with the initiatives mentioned in the Green Paper. The issue of access to capital by young and unlisted companies will receive additional attention. The role of crowdfunding, loan funds, and the possibility of private placements should also be investigated. In this context, a consultation on

²⁶ Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).

²⁷ Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).

²⁸ Regarding this, also see the remarks in Section 0.

the regulation of European venture capital funds (EuVECA) will also be initiated. And the Commission will present a proposal for updating the Prospectus Directive and consider to what extent a Europe-wide credit register would positively affect lending to medium-sized companies. And finally, the Commission wants to take up the issue of measures for the elimination of tax hurdles in international capital flows. Tax disadvantages for equity investments could also be on the agenda.

With regard to a further augmentation of the securitization market, the Commission has initiated a consultation on the market for covered bonds. The aim is to strengthen this market segment, which should also explicitly include the question to what extent successful models, such as the German *Pfandbriefe* (mortgage bonds) market, can be rolled out throughout Europe.

It is particularly noteworthy that the Commission, with an eye toward improving the credit lending capacity of banks, would also examine the scope for local credit cooperatives, which are not subject to EU capital requirements, to stimulate credit markets. And finally, the Commission would like to more closely study the various reasons why European capital markets are so fragmented. The issue of the harmonization of insolvency law plays a role, but so does the facilitation of cross-border financial services for retail and institutional investors. The operation of corporate bond markets should also take their place in the test bed.

3.2 Further initiatives in the area of long-term financing

As mentioned above, the Green Paper on the CMU is embedded into a larger initiative aimed at improving the conditions for long-term financing. The Commission's Green Paper on Long-Term Financing and the Investment Plan (also known as the Juncker plan) particularly merit a mention here. They will be discussed in some detail below.

3.2.1 The Commission White Paper on Long-term Financing

The Commission had previously presented its Green Paper on the Long-Term Financing of the European Economy in March 2013.²⁹ The motivation for this Green

²⁹ Cf. European Commission, Green Paper – Long-Term Financing of the European Economy COM(2013) 150 final, 25. März 2013.

Paper was the concern that the access of the European economy to long-term funding could be at risk as a result of the financial market crisis and regulatory changes in the banking sector. About a year after a consultation was conducted, the Commission presented its White Paper on Long-Term Financing, which contained a number of proposals for improving the overall conditions for long-term financing.³⁰

To that end, the CRR rules should be assessed in terms of whether they excessively burden banks' allocation of long-term financing. Insurance supervision rules should likewise be assessed in terms of how far they put long-term risky asset classes at a disadvantage. The Commission has already obtained some initial results with regard to these issues, which will be discussed once again in Section 4.2. Furthermore, a single market for private retirement pension products should be established, which the Commission hopes will result in an augmented mobilization of private savings for long-term investment products.³¹ The creation of an EU savings account is also on the table.

A second crucial area that the White Paper addresses is the more efficient use of public funds. The development of European capital markets is referred to as the third pillar. Many of these issues are dealt with as part of the Action Plan, which was discussed in Section 0. An important additional point is the creation of European Long-Term Investment Funds (ELTIFs). The corresponding regulation has since been adopted.³² It sets up an AIF-compliant investment vehicle which can invest in alternative long-term asset classes, such as equity investments in unlisted companies, non-traded bonds, or infrastructure assets. These funds can also be sold to private investors within the scope of a European sales and management passport. Finally, the White Paper focuses on the disadvantageous tax treatment of equity financing vis a vis debt financing and the disincentives associated with long-term financing.

³⁰ Cf. Communication from the Commission to the European Parliament and the Council on the long-term financing of the European economy COM(2014) 168 final, 27 March 2014.

³¹ Regarding this, EIOPA has presented a consultation document; Cf. EIOPA, Consultation Paper on the creation of a standardised Pan-European Personal Pension product (PEPP) EIOPA-CP-15/006, 3 July 2015.

³² Cf. Regulation (EU) 2015/760 of the European Parliament and the Council from 29 April 2015 on European long-term investment funds.

3.2.2 Juncker Plan

The Investment Plan for Europe (also known as the Juncker Plan) is an initiative by the Commission to increase public and private investment in Europe.³³ It is based on three pillars, the first of which, according to public perception, is by far the most important. Accordingly, additional investment funds in the amount of at least 315 billion euros will be allocated over the next three years. To accomplish this, the European Fund for Strategic Investment (EFSI) will be set up and it will be managed by the EIB.³⁴ The Fund receives funds from the EIB in the amount of 5 billion euros and a guarantee from various EU budgetary pots in the amount of 16 billion euros. This results in the fund having a direct financing capacity of three times the invested capital, i.e., approximately $3 \times 21 = 63$ billion euros. The Commission still expects that for each euro of credit provided by the EFSI, additional funding commitments from private and public donors in the amount of 5 euros will be raised. The result would be a total financing volume of $63 \times 5 = 315$ billion euros.³⁵

The loans extended by the EFSI, guarantees, or other (equity) products are to be invested in public and private projects in infrastructure, education and research, renewable energy, and the promotion of SMEs. The fund is now operating and has already financed a number of projects in various Member States. Furthermore, in order to better guide the use of resources and generate the maximum long-term impact, it still intends to deploy 450 billion euros from European structural and investment funds by the year 2020.

The second pillar of the Investment Plan is to improve coordination between private investors and public authorities in the identification and preparation of large

³³ See the Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank— an investment offensive for Europe COM(2014) 903 final, 26. November 2014.

³⁴ The legal basis for the implementation of the offensive, in particular, the formation of the EFSI, is the Regulation (EU) 2015/1017 of the European Parliament and the Council from 25 June 2015. worden.

³⁵ Concerning this, see the Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank— an investment offensive for Europe COM(2014) 903 final, 26. November 2014, page 9.

investment projects. This mainly concerns measures dealing with the informational, operational, and technical coordination of all relevant stakeholders at the European, national, and regional levels.

The third pillar is of a regulatory nature. The background here is the recognition that the willingness of private investors to participate in long-term investments also depends on confidence in a country's economic and political framework.³⁶

Additionally, the predictability of regulation plays an enormous role in infrastructure investments. In that regard, the Commission notes that the investment environment in the EU should be improved through augmented regulatory predictability, better investment conditions, and the removal of barriers to investment.

This pillar, however, comprises a long-term objective for which the Commission really does not suggest any concrete measures. Nevertheless, the so-called "Better Regulation Agenda" is already on the way towards improving the efficiency, transparency, and participation of the European legislative process.³⁷

It is also interesting to note that the Commission regards the following key areas as especially crucial: energy, transportation, the Digital Single Market, research and innovation, and internationalization.

4 Impact analysis

4.1 Basic reflections on the significance of a capital markets union

In Chapter 2, the financing structure of German companies was examined in greater detail. There, we noted that although that has been a slight drop in the relative importance of bank credit in the past 15 years, it continues to represent a central pillar in corporate finance, particularly with regards to SMEs. Incidentally, this applies

³⁶ It is shown by (Gulen & Ion, 2015), that a statistically and economically significant inverse relationship between capital expenditures at the company level and political and regulatory uncertainty in a country. The relationship is especially strong for long-term and irreversible Investments, such as, e.g., infrastructure investments.

³⁷ See European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Better Regulation for better results – An EU Agenda COM(2015) 215 final, 19th May 2015.

not only to countries with stronger tradition of bank financing, but also to countries that employ greater capital market-based corporate financing.

4.1.1 Theoretical observations

For an assessment of this status quo and the subsequent conclusions with regard to the fundamental economic classification of political initiatives related to the Capital Markets Union, the question of what role should optimally be attributed to bank-based corporate financing as opposed to one which is capital market-based has to be answered. The literature has dealt extensively with this question.³⁸

Cum grano salis, one can say that both systems have their advantages and disadvantages, therefore this discussion should be less in the vein of an "either/or-", rather than an "as-both-also" approach.

There are, in fact, important differences between banks and capital markets with regard to their interdependence with the real economy. An essential economic function of banks is that they generate private information via their screening- and monitoring activities within the framework of loan applications by companies, which they subsequently utilize in their decisions to extend credit.

This is of especially great importance for the financing of SMEs. Due to the companies' lack of size and transparency, capital markets are not willing to invest resources in the information-gathering process. Additionally, banks can use their private information to finance SMEs throughout the business cycle, whereas capital markets frequently act pro-cyclical. The financing decisions made by banks also simultaneously influence investment decisions.

This steering role is enhanced by banks' ability to offer companies customized risk-transfer solutions. Because banks carry out maturity transformation, savers benefit from the shifting of liquidity risks.³⁹

³⁸ For a detailed overview of the literature on this particular problem, see, e.g., (Beck et al., 2015), page 21 ff. The following descriptions are oriented toward this overview.

³⁹ In addition to their information processing function, a particularly important central macroeconomic function of banks is this maturity- and liquidity transformation, which, however, is not considered further here. An introduction to banks' macroeconomic functions is found in (Freixas & Rochet, 2008).

Conversely, capital markets have the advantage that their information procurement generates public information which is reflected in market prices, thus corporate governance is improved via the price mechanism.⁴⁰ Share prices also determine a company's cost of capital and therefore its investment decisions. At the same time, the decisions made by company executives will depend on their foreseeable impact on the company's share price, provided that their remuneration is linked to it. The threat of a takeover, which is especially virulent when the share price is low, has a disciplining effect on management.

By offering standardized products, capital markets can offer certain investment- and risk-transfer products at very low costs. All of these mechanisms develop - similar to the credit granting decision at banks - a steering function, i.e., the capital market allocates capital to what is in its estimation the most profitable use. Finally, capital markets have the advantage of offering investors a better cross-section of diversification. This reduces the risk of individual investments and should thus lead to a higher willingness to invest in risky asset classes.

At the same time, both systems obviously have their drawbacks. With capital markets, corporate oversight does not work well because investors can easily divest their holdings and thus have no incentive to exercise control. The free rider problem for small investors vis-à-vis large investors has to be mentioned here.⁴¹ There are also reservations about the efficiency of the price mechanism which could lead to misallocations.

On the other hand, banks are frequently accused of inhibiting innovation by exploiting private information to protect their established businesses and thus have little incentive to finance new firms and innovation. The nature of credit contracts makes banks conservative because they participate in losses, but not in profits. Banks with market power can therefore reduce companies' incentives to carry out risky but innovative projects.⁴² Proponents of bank-based systems counter that banks' long-

⁴⁰ See (Song & Thakor, 2013)

⁴¹ See (Grossman & Hart, 1980).

⁴² See (Rajan, 1992), (Hellwig, 2000), (Weinstein & Yafeh, 1998) and (Morck & Nakamura, 1999).

term credit relationships encourage long-term investment planning on the part of companies and thus innovative activity. The flip side of this argument is that banks are less able to promote a rapid reallocation of resources. In contrast, capital market-based systems are more innovation-friendly because they permit the aggregation of different opinions and the equity investors directly benefit from the profits of innovation.

Despite this contrast in ad-/disadvantages for both systems, it should not be forgotten that banks, financial intermediaries, and capital markets complement each other, for example, in the securitization markets, i.e., the (synthetic) sale of loans to investors in capital markets. The fact that capital markets make it possible for venture capitalists to sell their positions (exit) after a certain holding period is another example of such a complementary relationship between financial intermediaries and capital markets.

4.1.2 Empirical findings

Empirical studies which compare countries with bank- and capital market-oriented financial systems do not demonstrate any difference in growth between the two systems.⁴³ The structure of the financial system (i.e., the relative significance of banks or capital markets) is not significantly correlated with economic growth, whereas the efficiency of the financial system – whether it is via banks or capital markets and measured as the sum of a country’s private sector bank- and capital market financing or the ratio of capital market liquidity to interest margins – is conducive to growth. Results of aggregate data at the national level and micro-data at the industry- and company level come to similar conclusions. This is consistent with the Financial Services Hypothesis, which stresses the importance of financial services for the real economy and downplays the role of specific institutions and markets. Furthermore, it is consistent with the theory that the optimal financial market structure adjusts to the development of the financial system.⁴⁴

⁴³ Cf. (Beck & Levine, 2002), (Demirguc-Kunt & Maksimovic, 2002) and (Levine, 2002).

⁴⁴ Cf. (Boyd & Smith, 1998).

However, recent studies indicate that the higher the income level of a country is, the greater the importance of capital market-based financing.⁴⁵ However, the Financial Services Hypothesis stresses that banks and capital markets have a complementary impact on economic growth.⁴⁶ This is probably due to increased difficulty in certain credit granting activities if there are no ready refinancing options on the capital market. A good example is the securitization market, but markets for equity capital would also be potentially less attractive for investors in the absence of reliable exit channels via stock exchanges. In addition, competition between the two segments should make the financial system more efficient and thus the acquisition of financial resources more advantageous. The literature also emphasizes the complementary effect of banks and capital markets.

Of course, the argument that the coexistence of a strong banking- and capital markets sector also leads to a diversification of financing sources remains unaffected. This is advantageous if an external shock causes one of the two sectors to (temporarily) lose its financial strength. In this case, the impact of this shock on the real economy would be muted somewhat because the other sector can take over a portion of the tasks.

4.1.3 Conclusions for the Capital Markets Union

Against this backdrop, it is, in a certain sense, clear why the CMU project was initiated soon after the Banking Union project.⁴⁷ Although a number of political considerations which will not be considered further within the context of this report were decisive, there was, nevertheless, also an economic justification for this development. The results from the literature indicate that, especially in developed economies, capital market depth has a positive impact on economic growth. There

⁴⁵ Cf. (Beck, Demirguc-Kunt, Labcen, & Levine, 2008).

⁴⁶ See (Levine & Zervos, 1998) und (Beck & Levine, 2004).

⁴⁷ The banking union consists of three fundamental elements: i) the uniform oversight mechanism which is derived from Single Rule Book as well as monitoring by the ECB, (ii) the single resolution mechanism based on European Parliament Regulation No. 806/2014 and the Council from July 15, 2014, and (iii) a unified deposit insurance scheme. Whereas the first two points have already been implemented, there continues to be a lack of a political consensus for the last.

are good arguments for these effects also being the result of the complementary interaction of banking and capital markets. In this respect, the CMU should not only be seen as an approach for improving companies' capital market access, rather hidden behind it is the hope that a large and liquid capital market will also lead to improved access to credit. This complementarity effect is also of central importance for regulatory aspects because it predicts that the effects of a CMU will fall flat if there is no holistic approach in which the regulatory framework for the banking and insurance sector is adjusted accordingly.

Furthermore, it must be noted, that the capital markets of numerous EU Member States have declined in international comparison with respect to their size and liquidity. The extent to which Germany was affected was already pointed out in Chapter 2.⁴⁸ Although a study of the relevant causes would not be an easy matter, there is a certain consensus that the organizational, legal, and possibly also cultural fragmentation of European capital markets can be cited as one of them. This effect is reinforced by the so-called "gold-plating" of the national legislators or the national supervisory authorities, through which there is strong national differentiation even when there appears to be uniformity in EU law on the basis of appropriate directives and guidelines. In addition, for historical reasons, in some Member States there is a regulatory framework which does not promote capital market-oriented investments by institutional and private investors. As far as Germany is concerned, regulations for retirement savings in particular should be mentioned, which due to their combination of interest rate guarantees and solvency regulation lead to very conservative investment methods in which equity investment in particular is greatly restricted.⁴⁹ Hence, it can well be seen that the scope of the CMU is limited as it addresses the fragmentation of European capital markets, but not some of the major causes that have generated this fragmentation; for instance, national rules on retirement savings.

⁴⁸ A detailed comparison of European capital markets is found in (Beck et al., 2015), Chapter 3.

⁴⁹ A detailed examination of the regulatory reasons for the lack of capital market depth in Germany is found in (Beck et al., 2015), Module 2.

4.2 The interplay of banking, insurance, and capital market regulation and its market impact

Beginning by noting that due to the complementarity effects the impact of the CMU can only be estimated by jointly considering all segments of the capital market, we now want to look at the reciprocal effects within financial market regulation. Of particular importance here is the area of securitizations. Furthermore, there are numerous additional aspects in which regulation of capital markets, banks and insurers will interact. We will deal with this in the following sections.

4.2.1 Indirect capital market financing: securitizations

4.2.1.1 *The development of securitization markets*

The problematic lack of depth and liquidity in capital markets can be observed in securitization markets. It is of particular importance because the securitization markets, as previously mentioned, represent a crucial interface between the banking sector on one side and the capital market on the other. As a result, capital market-based financing is not conceivable for SMEs without liquid securitization markets. This is because in the absence of extremely high yield premiums, institutional investors are only willing to invest in these markets due to the existence of this liquidity. Securitization markets are also important for larger companies, for example within the context of the ABCP program used by companies to ensure capital market-based short-term trade financing.

It has already been pointed out in Section 2.3.2 that volumes in European securitization markets are clearly lower than in their US counterparts. This is still the case when taking into consideration that covered bonds account for over 50% of outstanding volume.⁵⁰ In contrast to the US, the securitization of company- or consumer loans plays a subordinate role in Europe.

The development of securitization markets is of particular interest, especially as it affects Europe. Even the previously stable covered bonds market has seen a decrease of 10 percent in trading volume since the end of 2011. As can be seen in Figure 23,

⁵⁰ See Figure 23.

the decline in other market segments has been considerably more dramatic. Particularly for the securitization of corporate financing, such as SME lending, commercial mortgage financing (CMBS) and leasing financing (excluding auto leasing), there were decreases in the order of 35 to almost 60 percent.⁵¹ There are multiple reasons for this development. First of all, the difficult economic situation in Europe plays a huge role. Second, it must be noted that intervention by the ECB enables the banks to at least partially satisfy their refinancing needs without resorting to securitization. Third, the negative experience with securitization instruments during the financial markets crisis definitely plays a role. Fourth, regulatory activities within the context of Basel III and Solvency II are also responsible.

4.2.1.2 Regulatory aspects

First, with regards to banking regulation, the initial question could be whether the risk weights set in Article 245 et seq. of the CRR, as measured by historical losses on European securitization instruments, might be too ambitious.⁵² In fact, the defaults were primarily driven by US instruments. A study by Fitch shows that the realized losses on European securitizations issued in the 2000-2011 period, were well under 1%.⁵³ As discussed in Section 0, this point was included in the Commission's action plan for the CMU, as intended in the legislative proposal for lowering the risk weights for STS securitization.

Second, on October 10, 2014, the Commission issued their delegated regulation concerning the detailed implementation provisions for the determination of the

⁵¹ Regarding these remarks, also see (Beck et al., 2015), Module 2.

⁵² Cf. Regulation (EU) No. 575/2013 of the European Parliament and of the Council from 26 June 2013 about supervisory requirements for banking institutions and securities firms. In addition, it turns out that there is currently even a discussion about raising these requirements; cf. Revisions to the securitisation framework, BCBS, 11 December 2014, p. 20.

⁵³ Cf. Fitch Ratings, Global Structured Finance Losses, Special Report, October 22, 2012.

liquidity coverage requirement laid down in Article 411 et seq. of the CRR.⁵⁴ The best case is that securitizations fall under Level 2B, and then a haircut of 25 or 35% must be made. Of note here is that a greater discount is applied to the securitization of corporate loans. The comparison to corporate bonds is interesting. These can be assigned to Level 1 if they have at least an AA rating, an issue volume of at least 250 million euros, and a maturity that does not exceed 10 years. Debt securities issued by large companies are thus treated significantly differently in comparison to a securitized SME loan portfolio.

Thirdly, the practice repeatedly refers to the uncertainties in securitization associated with the CRR. In particular this means Article 405, where so-called due diligence requirements for issuers, originators, and sponsors are set. These include, among other things, documentation, due diligence, and risk management obligations. If these obligations are violated, then the bank must completely cover the securitization positions with its own equity. The associated risk leads banks to weigh the issue of whether certain claims should be securitized with great care. In view of the aforementioned, because there is a lack of clear rules on the part of the supervisory authority, if any doubt exists, the securitization might be rejected.

At the same time, there are changes to take note of in the European insurance oversight through Solvency II.⁵⁵ The EIOPA has since acknowledged that some relief with regard to risk weights is justified, particularly for high-value securitizations.⁵⁶ This has now led, on the basis of Article 177 of the Commission Delegated Regulation of the Solvency II directive, to the capital adequacy requirements of securitizations and corporate bonds of comparable quality being set at a similar level.⁵⁷

⁵⁴ Cf. Commission Delegated Regulation (EU) 2015/61 of 10 October 2014 to supplement Regulation (EU) No 575/2013 of the European Parliament and the Council with regard to liquidity coverage requirement for credit institutions.

⁵⁵ For a detailed analysis of Solvency II, in particular to the extent it is also intertwined with Basel III, Cf. (Kaserer, 2011).

⁵⁶ Cf. the Technical Report on Standard Formula Design and Calibration for Certain Long-Term Investments, EIOPA/13/513 from December 19, 2013.

⁵⁷ Cf. the Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing the Directive 2009/138/EG (Solvability II).

The problem, however, is that this preferential treatment of securitization assumes that there is a broad and deep market for these instruments. Accordingly, the supervisory authority will decide. Regardless of the outcome, the importance of the establishment of a liquid securitization market is evident. In conclusion, the necessity of further development of the securitization markets at the European level has been recognized.

At the beginning of the year, consultations were conducted by the Commission and the Basel Committee.⁵⁸ The Basel Committee has meanwhile submitted recommendations for requirements of simple, transparent, and comparable securities.⁵⁹ And, recently, the EBA, EIOPA, and ESMA have submitted their securitization report, which contains a number of recommendations.⁶⁰

4.2.2 Regulatory aspects of direct capital market financing: bond and stock markets

4.2.2.1 Financial market regulation and liquidity shortcomings

An essential aspect of the capital market union is the recognition that the size and liquidity of European equity- and bond markets are too low. This was already detailed in Section 2.3. These markets fulfill multiple important functions with regards to corporate financing. Companies can directly procure fresh capital in these markets, which for many SMEs is nevertheless not a viable alternative due to lot sizes. At the same time, banks can also refinance on these markets; in fact, banks as issuers of debt play an important role. This is by no means solely limited to securitization instruments, and also extends to unsecured debt securities. The more receptive these markets are, the lower the refinancing costs and risks for the banks, which in turn positively affects their willingness to extend loans. Finally, these markets play a crucial role in risk diversification.

⁵⁸ Cf. Consultation Document: An EU framework for simple, transparent and standardised securitisation, 18 February 2015, und Consultative Document: Criteria for identifying simple, transparent and comparable securitisations, BCBS, 11 December 2014.

⁵⁹ Cf. Criteria for indentifying simple, transparent and comparable securitisations, BCBS, July 2015.

⁶⁰ Cf. Joint-Committee Report on Securitisation, JC 2015 022, 12 May 2015.

Against this backdrop, the finding in Section 2.3 that German as well as European equity- and bond markets are by international comparison, relatively underdeveloped, is rather alarming. With regard to the equity markets, it has been demonstrated that there has been a sharp increase in the liquidity of global share trading. At the same time, it must be assumed that this increase has primarily been focused on large, blue-chip multinationals. A rise in liquidity in the medium- and small-cap sector has only been noticeable to a very limited extent.⁶¹ It has been shown by (Rösch, 2012), that with a trading volume of 1 million euros, the liquidity costs as measured by weighted bid/ask spreads, average 59 basis points for DAX shares. In contrast, they respectively amount to 372 and 500 basis points for TecDAX and SDAX shares. For MDAX shares, they still amount to 267 basis points. This demonstrates how extreme the difference in liquidity is between medium- and small cap shares in comparison to large caps. In that regard, there are justifiable fears from the perspective of large institutional investors that the issue of available liquidity in European markets below the blue chip segments has become a critical one. In addition, it could also be difficult to place large volumes on the associated primary markets.

A more virulent form of this problem could occur in the future in bond markets. At any rate, the ECB's November 2014 Financial Stability Report warned that there is a gap between the trading volume of corporate bonds issued by non-financial companies and the liquidity available in this market. Whereas the outstanding volume of these bonds has doubled since the financial crisis, the value of bank portfolios holding these bonds has sunk from 250 to 150 billion euros.

There are numerous reasons for this, in which the complex interaction of different regulatory directives can be observed. The CRR could initially be responsible for this, since they have led to a significantly higher capital adequacy ratio for portfolios in banks' trading books. The leverage ratio also casts a deep shadow because it raises costs for repo transactions.⁶² The cost of hedging credit risks from bonds has likewise

⁶¹ Cf., for example (Fioravanti & Gentile, 2011).

⁶² A shrinking of the repo markets has actually been observed in the US as well as Europe. According to the December 2014, ISMA European Repo Market Survey, European repo markets have shrunk by

risen due to the rules on OTC derivatives⁶³ and the capital adequacy requirements in trading books (especially the CVA surcharge). Furthermore, the new CRR liquidity rules, according to which corporate bonds generally count as Level 2 assets and thus are discounted by 50% for the calculation of liquidity requirements, have a negative impact on the willingness of banks to retain bonds. The sum of all of these effects is an increase in the cost of holding bonds (as well as other instruments) and thus market-making activities become less attractive from the banks' perspective.

It should furthermore be noted that, for strategic reasons, many banks rethink their activities in the area of securities trading when long-term regulatory changes occur. One of the various regulatory initiatives concerning the separation of risky investment banking activities from traditional deposit- and lending business, plays an important role here. After all, the question is what sort of operational scope banks will continue to have in the future.

On the other hand, there are the new regulations, which were introduced via MiFID II and MiFIR, to consider. In Article 8 and 10 of the MiFIR,⁶⁴ which previously applied to equity trading, the pre- and post-trade transparency requirements were extended to bond trading, structured financial products, emissions trading, and derivatives. Article 21 of the MiFIR additionally established post-trade transparency obligations for securities dealers, regardless of whether they trade in their own names or their customers' names. The securities dealers are worried that these disclosures could result in the loss of competitive advantages or that the knowledge of the dealers' open positions could be exploited by competitors. Although these concerns were taken into account during the legislative process via the option of exemptions, market participants continue to be concerned that these transparency rules will affect the profitability of the business.

11 percent since December 2011. A repo is a sale and repurchase agreement in which two parties agree that a security will initially be sold to one party and then sold back for a price set today after the expiration of a specified period.

⁶³ The so-called EMIR regulation is especially responsible: Regulation (EU) Nr. 648/2012 of the European Parliament and the Council on OTC derivatives, central counterparties, and transaction registers.

⁶⁴ Regulation (EU) No. 600/2014 of the European Parliament and the Council from 15 May 2014 via markets for financial instruments.

On the part of investors, the concern has long existed that, within the framework of the Solvency II standard approach, bonds with low ratings are especially subjected to an excessively high capital requirement.

Against this backdrop, no one will be completely surprised that there are warnings from various sides of the danger that liquidity will dry up in the bond markets, in particular with regards to corporate bonds and securitizations. These concerns have been confirmed somewhat in a recently published study from PWC or the ICMA.⁶⁵ The ECB has also expressed relevant concerns in this area in its November 2014 Financial Stability Report. This development has thwarted efforts to revive securitization markets.

4.2.2.2 Fragmentation via corporate and insolvency law

Independent of the specific aspects of financial market regulation, it should be stated that the European capital market to this day suffers from a strong fragmentation. Despite all efforts to establish a single market, in the financial services field the European market continues to be greatly fragmented. This accurately reflects the capital market development in all European countries, although due to its particular importance as an international financial center, Great Britain is affected to a lesser extent. In addition to cultural aspects, there are also regulatory grounds for the fragmentation. To the extent that obstacles are sought which make it difficult for institutional investors to implement a pan-European business model and investment strategy, the following points must definitely be mentioned. First of all, capital market supervision has until now been organized at the national level, although there has been progression towards pan-European supervision since the financial crisis. Second, fewer steps have clearly been initiated to harmonize corporate- and insolvency law than have been undertaken for the harmonization of the capital market.⁶⁶

⁶⁵ See ICMA, *The Current State and Future Evolution of the European Investment Grade Corporate Bond Secondary Market: Perspectives from the Market*, November 2014, and PWC, *Global Financial Markets Liquidity Study*, August 2015.

⁶⁶ The Commission's proposed revision of the Shareholder Rights Directive aims precisely in this direction with the intent to improve and harmonize the monitoring of listed companies; cf. Proposal for a Directive of the European Parliament and of the Council amending Directive 2007/36 / EC with

Statutory corporate law requirements are crucial for corporate governance activities.⁶⁷ The readiness of institutional investors to invest in listed companies depends, to a certain degree, on the property rights they have in disputes. Because private large investors in listed companies in Europe are already well-represented, minority protection plays an important role.⁶⁸

Insolvency law guidelines are of great significance for rating credit market products. Due to the fragmentation of European insolvency law, for institutional investors there is a considerable uncertainty regarding the processes and outcomes in cases of a corporate crises. Furthermore, the acquisition of relevant information for an informed investment decision is very time-consuming, which makes pan-European investment strategies costlier for institutional investors.

The difficulty with the fragmentation of insolvency law has long been recognized by European legislators. In 2002 there was already an insolvency regulation in place⁶⁹ which at least attempted, to the greatest extent possible, to make insolvency proceedings clearer with regard to the jurisdiction in which the main ones will take place for multinational companies. According to various reports and long discussions, the result is now a recasting of the insolvency regulation which will take effect in 2017.⁷⁰ The objective is to improve cross-border coordination regarding multinational companies. An insolvency register will thus be introduced, with which everyone can remain informed about the initiation and status of insolvency procedures. This insolvency register will also link all EU countries' registers. The

regard to the promotion of long-term involvement of shareholders and Directive 2013/34 / EU in relation to certain elements of the Declaration on Corporate Governance, COM (2014) 213 final of 9 April 2014

⁶⁷ It is shown by (Cziraki, Renneboog, & Szilagyi, 2010), that active investors in European companies are much less engaged than their counterparts for US companies, for example, by motions for votes at shareholders meetings. This is an indication that corporate control by active investors in Europe is considerably weaker. A similar finding is found in (Becht, Franks, Grant, & Wagner, 2015), which carries particular weight because it shows that control activities by European investors, to the extent that they occur, get better results than those by foreign, mostly US investors.

⁶⁸ An example of this thinking is squeeze-out regulations and rules on the monitoring of transactions with related parties.

⁶⁹ Regulation (EC) No. 1346/2000 of the Council from 29 May 2000 about insolvency procedures.

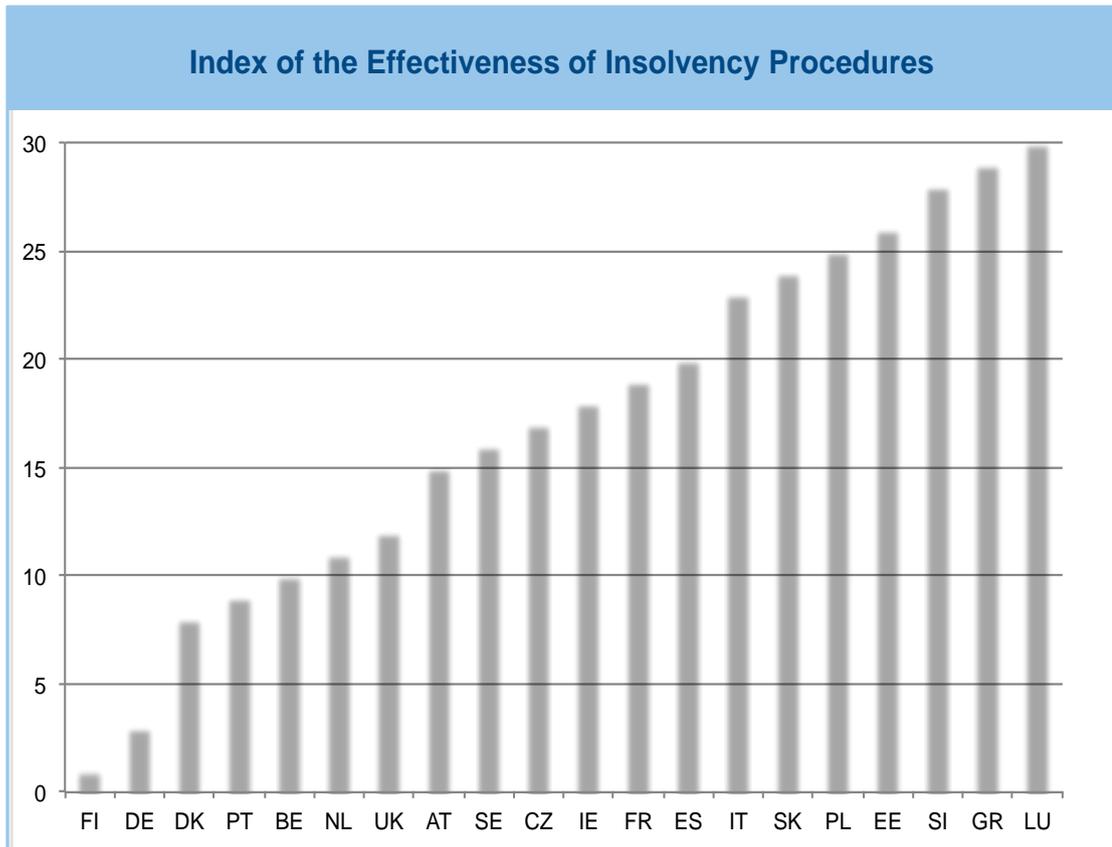
⁷⁰ Regulation (EU) 2015/848 of the European Parliament and of the Council of 20 May 2015 on insolvency proceedings.

insolvency administrators and courts will continue to exchange information and cooperate. A group coordination procedure for large multinationals will also be introduced for this purpose. Finally, it should be noted that these regulations do not only apply to insolvency in the narrow sense, rather also to a list of insolvency- and restructuring procedures which are listed in the regulation.

It remains to be seen how effective this regulation is in relation to an augmented harmonization of insolvency proceedings in the EU actually is. At any rate, it must be noted that the above mentioned insolvency regulation from the year 2000 did not lead to full harmonization. Insolvency proceedings for multinational companies in the EU are still plagued by considerable outcome- and process risks. A more detailed analysis of these problems lies well outside of the scope of this report. Nevertheless, it is interesting to note what is derived from the World Bank's "Doing Business" index results.⁷¹ Among other things, the effectiveness of insolvency proceedings is examined, as well as the effectiveness of repayments.⁷² The length of the proceedings is taken into consideration, its costs in relation to the insolvency assets, how high the chances for survival are, and the level of recovery rates for the secured creditors. On the other hand, the strength of the insolvency proceeding is measured. The question here is, under which conditions can creditors open insolvency proceedings, how well the rights of the creditors are protected, and the quality of its governance.

⁷¹ For a more precise description of this index cf. <http://www.doingbusiness.org/rankings>.

⁷² A more precise description of these criteria is found in <http://www.doingbusiness.org/methodology/resolving-insolvency>. The methods are oriented towards those in (Djankov, Hart, McLiesh, & Shleifer, 2008)..



Comments: This figure presents the "Resolving Insolvency" values from the World Bank (Doing Business) index for selected EU countries. A lower index value indicates greater effectiveness for an insolvency proceeding (high repayment rates, a more rapid process sequence, and lower costs), and a high index value indicates a less-effective proceeding. The values are current as of June 2014.

Source: World Bank (Doing Business)

Figure 25: Index of the effectiveness of insolvency procedures in various EU countries

The results are presented in Figure 25. As you can see there is a high degree of heterogeneity across the selected EU countries. Furthermore, the results indicate that there is still a lot of room for improvement in many countries with respect to insolvency procedures. This is also consistent with the worldwide study of insolvency proceedings conducted by (Djankov et al., 2008). The authors conclude that the procedures in many countries are still very inefficient, being burdened with high costs, long durations, and low chances of survival for the company concerned. It is to such an extent that it reflects an urgent need for action on the part of the EU on this issue. The underlying problems with efficiency cannot simply be eliminated with new versions of the relevant rules in the insolvency regulation.

4.2.2.3 Fragmentation through the financial market infrastructure

And finally, we cannot forget that the fragmentation of the financial market infrastructure has until now been a major obstacle to greater integration of the EU capital markets. In response, the objection could be made that with the most recent MiFID II package⁷³, discrimination-free access to this financial market infrastructure and the thus greater integration across national borders should be possible. In this context, the Target2Securities project under the leadership of the ECB, which is expected to bring rapid and cost-effective processing of cross-border securities transactions, should in particular be mentioned. The system is planned to become operative during 2015. It must be noted that there are still serious shortcomings in the areas of clearing, settlement, and custody of cross-border securities transactions; however, they have been acknowledged and are (partially) being remedied by legal and technical measures.

4.2.2.4 Importance of investor protection regulation

Investor protection in the EU has improved in many ways since the adoption of the Prospectus Directive in 2003 and MiFID in 2004.⁷⁴ In addition to the adoption of the above mentioned MiFID II package in 2014, the market abuse regulation in particular represents a crucial milestone in the further development of investor protection⁷⁵. A distinction must be made between two dimensions of investor protection. On one side is protection of investors in their role as providers of capital. This dimension especially affects aspects of corporate governance and market regulation; i.e., investor protection in the strictest sense. On the other side is consumer protection within the financial services framework. It is here that investment advice steps to the

⁷³ Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and Regulation (EU) No. 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments.

⁷⁴ Directive 2003/71/EC of the European Parliament and of the Council of 4 November 2003 on the prospectus to be published when securities are offered to the public or admitted to trading, mentioned in Directive 2004/39/EG of the European Parliament and Council of 21 April 2004 on markets for financial instruments.

⁷⁵ Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse.

forefront, or perhaps more fundamentally, the relationship between consumers and providers of financial services.

Insofar as investor protection in the narrowest sense is concerned, there is broad agreement in the academic literature that the influence of effective investor protections is generally positive, although empirical evidence is anything but easy to find.⁷⁶ At the same time, there is always the concern that costs associated with the implementation of high investor protection standards could lead to a withdrawal by some capital market participants. As a result, in connection with the CMU Green Book, a consultation regarding review of the prospectus directive was conducted. The background was the concern that the costs associated with creating the prospectus might discourage SMEs in particular from accessing capital markets. The market abuse directive mentioned above also established certain exemptions for so-called SME growth markets.

Although it is indisputable that companies have only noticed the offer by exchanges to obtain external funding through the non EU-regulated capital market, e.g., via SME growth markets to a rather limited extent, there is, however, no consensus as to the primary causes.⁷⁷ The assertion that the forms of relief for SMEs listed in the Prospectus Directive are not yet convincing enough to persuade them to adopt a capital market orientation cannot be completely rejected.⁷⁸

It could also be that legal uncertainties with regards to the exemption from the statutory prospectus mandates are to a certain extent responsible. In particular, it should be noted here that these uncertainties will negatively affect the market for private placements and hence the development of SME-specific MTFs. Whether the removal of the obligation to release financial statements on a quarterly basis in accordance with the recent amendment of the transparency directive will be a

⁷⁶ Regarding this, cf., for example, (McLean, Zhang, & Zhao, 2012) and the sources cited there.

⁷⁷ In Germany, the Entry Standard was developed for this purpose by the Frankfurt Stock Exchange. As of 1 June 2015 there were 166 German-domiciled companies listed there.

⁷⁸ Regarding this relief, cf. Directive 2010/73/EU of the European Parliament and of the Council of 24 November 2010.S

quantifiable success in the EU countries seems to me, however, to be rather unlikely.⁷⁹

Incidentally, it should be noted that a regulation established in the United States within the framework of the JOBS Act whereby certain companies with an annual revenue of under 1 billion US dollars are given some forms of relief when they do an IPO. After approximately two years of experience, there is indeed clear evidence that many companies do make use of this relief. There is, however, no evidence to the effect that this rule has led to a significant increase in the number of IPOs.⁸⁰

With regard to the optimal design of consumer protection rules in the financial services field, there is considerably less agreement in the literature. The Principal-Agent conflict between the financial services providers (advisors) on one side and consumers on the other is obvious.⁸¹ It is less obvious how the welfare costs of this conflict can be minimized. The regulatory approach in Germany and the EU – in accordance with MiFID I and MiFID II – has until now been based on the idea that consumer protection can best be guaranteed by broad pre-contractual information (e.g., the submission of comprehensive documents such as KIID, PIB, or PRIIP), the disclosure and restriction of conflicts of interest, as well as a detailed documentation of advisory meetings. The extent of which consumers actually use this information to make an informed investment decision is an open question, which is discussed at length in behavioral decision theory research.⁸²

Furthermore, the costs associated with these advisory and documentation requirements are substantial, hence a partial withdrawal by providers from the market could even occur.⁸³ To the extent that there is a conflict of objectives, lawmakers have yet to find a convincing answer, therefore it is no coincidence that this aspect would be examined within the framework of the Action Plan for the CMU.

⁷⁹ Cf. Directive 2013/50/EU of the European Parliament and of the Council of 22 October 2013.

⁸⁰ Cf. concerning this a study by Latham and Watkins: The JOBS Act, Two Years Later, from 5 April 2014.

⁸¹ Cf. concerning this, e.g., (Inderst & Ottaviani, 2012) and (Hackethal, Haliassos, & Jappelli, 2012).

⁸² Cf. E.g., (Fernandes, Lynch, & Netemeyer, 2014).

⁸³ (Hackethal & Inderst, 2015) come to the conclusion that for small banks, the costs from the documentation requirements exceed the gross profit from these securities transactions.

Overall, in our estimation there is little evidence that consumer protection standards which are too high are a fundamental cause of the lack of depth in European capital markets. Furthermore, there is a legitimate debate in the area of enforceability of shareholder rights regarding potential shortcomings in the current structure of these rights. With its proposal for an amendment to the Shareholder Rights Directive, the Commission has already taken an initial step in this area.⁸⁴ Among other things, it will propose that institutional investors include their shareholders in certain measures, such as the exercise of voting rights, and that they establish transparency regarding potential conflicts of interest. In addition, voting rights consultants should be obligated to disclose the reasons for their voting recommendations.

Of course, this does not change the fact that an eye must be kept on the costs of implementation that arise for companies, intermediaries, and investors. From the perspective of the SMEs, the lower these costs are, the easier indirect capital market financing becomes for them.

It is too soon to assess whether the high level of consumer protection ushered in by MiFID II will mean that banks or other institutions increasingly withdraw from providing advisory services. Even if this does not turn out to be the case, the effect on the depth of the capital market will be rather small. Private investors simply play too small of a role in European capital markets.⁸⁵

4.2.2.5 Fragmentation of accounting standards

The existence of harmonized accounting standards is of great importance for an integrated European capital market. With the mandate for capital market-oriented companies to prepare their consolidated financial statements using IFRS, Europe has taken a crucial step towards the establishment of a harmonized capital market, although market participants assert that national peculiarities still prevail due to the monitoring of IFRS compliance at the national level. This especially applies to the

⁸⁴ Cf. Proposal for a Directive of the European Parliament and of the Council amending Directive 2007/36 / EC with regard to the promotion of long-term involvement of shareholders and Directive 2013/34 / EU in relation to certain elements of the Declaration on Corporate Governance, COM (2014) 213 final of 9 April 2014.

⁸⁵ Corresponding findings can be found in (Beck et al., 2015).

enforcement of accounting standards. For this reason, ESMA recently published a report on the progress on the implementation of accounting standards in Europe, with the associated guidelines as to how it should take place.⁸⁶ The Commission also acknowledged the need for an improved uniform application of accounting standards, although currently no legislative intervention is planned.⁸⁷

In the Green Paper on the CMU, the Commission raised the issue of the extent to which SMEs that have issued financial instruments via the Multilateral Trading System (MTS), should have followed an EU-wide, uniform, IFRS-inspired accounting system. This would also casually be called "IFRS-lite". Behind this is the assumption that the above mentioned low acceptance of unregulated capital markets (including SME growth markets) was driven by the reluctance of investors, who would be deterred by opaque accounting information. This argument may well be justified, but at the same time we cannot forget that there are a large number of reasons for the lack of a capital market orientation on the part of SMEs. Furthermore, due to lot size and liquidity considerations, for many investors these companies are not interesting investment objects.

In that regard, the question that comes to the forefront for SMEs is what can be done to facilitate indirect access to capital markets. The introduction of an additional accounting standard for capital market-oriented SMEs comes with the risk that local financiers (including banks) would be confronted with three different accounting standards. For an SME, access to an SME growth market that mandates conversion of its accounting standard would be considerably more expensive, and this would contradict the above mentioned attempts to reduce the costs associated with this access.

⁸⁶ ESMA Guidelines on Enforcement of Financial Information – Final Report, ESMA/2014/807, from 10. July 2014.

⁸⁷ ESMA Guidelines on Enforcement of Financial Information – Final Report, ESMA/2014/807, from 10. July 2014.

4.2.3 Reflections on the regulation of financial intermediaries

4.2.3.1 *Interaction with the banking union*

An essential aspect of the interaction between the CMU and bank regulation, namely the securitization market, was previously discussed in Section 4.2.1. In this section, the interaction of the Banking Union and the CMU will be more closely examined. The starting point here is the discussion on the fundamental impact of the banking union which was introduced in Section 4.1. A crucial aspect was the realization that banks and capital markets play an important role in corporate financing for different reasons. Banks establish private information from the evaluation of credit applications. This information is then utilized in the decision to extend credit, so it ultimately affects the allocation of capital in the economy. Capital markets, however, generate public information, because investors' purchasing decisions affect the prices of securities. Because these price signals lead to further investment decisions, they also affect the allocation of capital in an economy.

Speaking very generally, against this backdrop it can be said that the transformation of European financial markets tackled by the Banking Union and the CMU will only trigger the desired growth effects if the capital markets as well as the banking sector have suitable framework conditions with which to fulfill their roles.

However, there is a crucial difference to consider. Because capital markets create public information, i.e., the prices of financial securities, they fulfill their role even more capably the better this price discovery mechanism works. There is evidence that deeper and more liquid markets can better fulfill this task. In this respect, the objective of a harmonized and integrated capital market is understandable.

As far as the Banking Union is concerned, the related objective is not as simple as it may seem. Because the banks make a valuable economic contribution by integrating private information into investment decisions, they need to remain in a position to obtain and process this information.

Nevertheless, anyone that wants to obtain private information needs a direct, preferably even a personal, contact, just like a bank would typically have with a dedicated customer service representative. This type of information is by its very

nature available only locally. The corporate customer business, at least for customers that are not capital market-oriented companies, is therefore decentralized. From the bank's perspective, there may be cost advantages associated with centralization, because IT systems needed in back office processing would then benefit from economies of scale and thus be less expensive to use. But that does not change the fact that such centralization leads to a loss of private information and thus the tendency to make a bad credit decision.

When only this aspect is considered, the advantage of a banking union, i.e., a banking sector which is fully integrated at the European level, is not directly revealed. In fact, the advantages of the Banking Union are, above all, discussed within the context of financial stability, whereas aspects of information processing and capital allocation hardly play a role. The Banking Union will tend to lead to an increase in the costs of supervision, a trend which has been observed for years, as well as a continuation of the consolidation trend in the banking sector, which also has technological causes. This raises the question what kind of incentives banks will have in the future for collecting private information and incorporating it in their decisions to extend credit. To the extent that consolidation leads to a withdrawal of banks, there will inevitably be a loss of information procurement capacity. SMEs would be particularly affected. The approach in the Green Paper, which is to compel the provision of public information about SMEs, seems only a little more promising. At any rate, it remains completely unclear which market participants are supposed to be interested in providing such costly information to the public without receiving anything in return.

There is an additional aspect in this context to mention, which although not directly related to the capital market and banking unions, is still important. In December 2014, the Basel Committee on Banking Supervision (BCBS, 2014a) published a new proposal for the so-called credit risk standard approach. It is intended to reform the measurement of credit risks, as long as they are not based on internal risk models. Among other things, the objective is, to lower the dependence on external ratings.⁸⁸

⁸⁸ For this, see (BCBS, 2014a), page 1.

The proposal presented by the Basel Committee is very extensive and affects all types of credit risk. Within the context of corporate loans, the central aspect is that in the future credit risks will solely be measured on the basis of the borrowing company's leverage and revenue. This is a fundamental departure from the existing standard credit risk approach. Although, one can argue about the quality of such external ratings, in comparison with the new proposal they have a big advantage. They are based on a more or less extensive collection of information about company. In contrast, an assessment based on leverage and revenue is a completely mechanistic process that is not well positioned to address a company's specific situation. This will- at least insofar as the banks use the standard credit risk approach- prevent any opportunity to incorporate private information in the credit decision.

In summary, it must be noted that the two now-parallel projects of a banking- and a capital markets union bear the risk of launching integration of the European banking sector which is too far-reaching. The important role of banks in the procurement and evaluation of information about companies which is only available regionally is thus not sufficiently being taken into account.

4.2.3.2 Long-term financing and insurance regulation

One of the central aspects for capital market development is the behavior of institutional investors. In Section 4.1.3 it was already indicated that there are in particular two aspects to consider. First, the regulations on retirement pensions, which play an important role with regard to the question of what portion of national savings are anyhow invested in capital markets and how are those funds allocated? It has already been indicated on the margins that the insurance-shaped structure of retirement pensions in Germany, with its combination of guaranteed interests and short term-oriented solvency regulations, is probably one of several factors responsible for below-average capital market development.⁸⁹ However, the regulation of pension schemes continues to fall under the jurisdiction of national legislators, so these rules play only a subsidiary role within the framework of the Capital Markets Union.

⁸⁹ For more details, see (Beck et al., 2015)

In contrast, with Solvency II, there is an obvious interaction between capital market development and European insurance regulation. Without going into the details of Solvency II, note the following fundamental point.⁹⁰ The obligations of life insurance companies are by nature very long-term. Within the solvency regulation framework, these long-term risks must be disclosed on an annual basis. This can lead to an excessive reporting of short-term market risks. Because there are rigid provisions in the standard Solvency II formula that have to be done, such as the capital adequacy requirement for different asset classes, there is also the problem of discrimination against certain asset classes.

Nevertheless, it has to be pointed out that this problem occupied a lot of time within the parameters of the Solvency II discussions.⁹¹ Article 304 of the Solvency II directive even provides for the calibration of solvency capital requirement for retirement pension contracts of a longer period than the standard one year duration. Because it is supposed to be subject to strict conditions, it is unclear whether this exemption is actually utilized. This issue is, however, only addressed on a very rudimentary basis in the modeling of interest rate shocks. For credit risk shocks, it has ultimately been hidden.⁹²

Despite wide-ranging discussions, until now this problem has only led to concrete measures for one investment class: high-quality securitizations have received some relief regarding their capital requirement.⁹³ In the infrastructure investment field, a consultation was conducted on the basis of an EIOPA discussion paper.⁹⁴ On this basis, at the end of September 2015 the Commission unveiled the proposals described in Section 3.1.2.2 regarding the introduction of a new asset class. In contrast, there seems to be no willingness to discuss other asset classes, such as

⁹⁰ A detailed discussion of Solvency II and its interaction with Basel III is located in (Kaserer, 2011).

⁹¹ A detailed discussion of Solvency II and its interaction with Basel III is located in (Kaserer, 2011).

⁹² Last, but not least, in this context, arguments about financial market stability play a role. There is currently an intensive debate at the G20 level over the potential systemic importance of insurance companies, which we will merely reference here. For an overview of this debate and the relevant literature, see Eling and Pankoke (2014).

⁹³ There have also been suggestions from many sides as to how these effects can be taken into account in a Solvency Capital Requirement Model; for an overview, see Sandström (2011).

⁹⁴ Regarding this, see the discussion in Section 5.1.1.

corporate bonds and equities. It must be assumed that a central aspect of capital market development, namely the investment behavior of institutional investors, continues to suffer from obscurity in the CMU project.

4.2.3.3 The role of private equity

In the empirical portion of this report, one of the consequences of an underdeveloped capital market was identified as a poorly developed market for private equity (i.e., venture capital and private equity). This aspect is also highlighted in the Green Book on the Capital Market Union. However, there are concerns that it is impossible to stimulate the market for private equity without a revitalization of the overall capital market.

In addition, the primary causes that hinder the attractiveness of the market for private equity, are anchored in national, and in particular, tax regulations. To the extent that Germany is concerned, (Kaserer, Achleitner, von Einem, & Schiereck, 2007) describe the fundamental weaknesses of the local private equity market. These lay mainly in the difficulty for companies of setting up legally-compliant, tax-transparent investment vehicles, as well as in the value-added tax treatment of management fees. For the financing of young companies (start-ups) the tax treatment of losses carried forward in accordance with Section 8c of Germany's Corporation Tax Act (§ 8c KStG) is highly relevant.⁹⁵ Despite the fact that the problems have been known for many years, there have yet to be any sweeping solutions. While a solution to the problem of losses carried forward would be difficult due to the potentially enormous deadweight losses, many proposals have been made with regards to the creation of legally-compliant, tax-transparent investment vehicles as well as the value-added taxation of management fees, which could be dusted off and refined.

⁹⁵ In addition, there are currently plans to make capital gains on investments subject to a 10% corporate tax. This would also worsen the tax treatment of venture capital funds.

4.3 Preliminary conclusion: Potential scenarios for the Capital Markets Union and its impact on SME-financing

The success of the CMU project, particularly the way it is judged, such as how the financing terms for SMEs change, in our assessment depends on two factors. First of all, a careful analysis of the first-order factors which are responsible for the below-average capital market depth of European countries is needed.

The growth desired for capital markets will only result if at least some of these factors are addressed and the corresponding framework conditions are improved. This was already pointed out with regard to framework conditions for retirement savings, which are a fundamental driver for a country's capital market development. These conditions, however, are largely outside of the scope of the CMU. The topic of asset allocation by institutional investors, particularly insurance companies, seems to be addressed only to a very limited extent.

Secondly, medium-sized companies will only benefit from this growth if the conditions also improve for indirect capital market financing. The main question here is to what extent the CMU will actually lead to a revitalization of securitization markets. A brief discussion of the conceivable scenarios and how they would subsequently affect the medium-sized companies follows.

4.3.1 Critical factors in capital market depth

The Commission's approach is focused on improving the capital market depth, and naturally is focussing strongly on those topics which are under its jurisdiction. These include in particular those aspects which fall under the heading of fragmentation of European capital markets. The regulation of financial intermediaries, which likewise is dealt with here, is primarily the responsibility of European lawmakers.

Although there are many points of agreement in the analyses behind this approach, there is concern that the primary causes of the lack in capital market depth will not be included. This matter was already referenced in the framework conditions for pensions, i.e., that they are largely out of the jurisdiction of European lawmakers. At the same time, there are aspects, in particular the insurance supervision regulation, for which no significant changes are planned. There are therefore concerns that the

CMU will not (in the short-term) be able to bring about the desired growth in capital markets. Thus, neither the direct nor the indirect conditions for capital market financing would improve, which means that there will also be no relief for the financing of SMEs.

4.3.2 Critical factors in indirect capital market financing

Even if the scenario described in the previous section does not occur and there actually is noticeable improvement in the depth of the capital market, it is not yet clear to what extent SMEs would benefit. The critical point in SMEs financing consists of the combination of bank- and capital market financing. An improvement in the financing conditions for SMEs would only occur if banks take advantage of the augmented refinancing options in capital markets to strengthen their SME-related business.

There are two aspects to consider here. The first is the implication that the change in the framework for securitization markets that results from the CMU already positively impacts the development of this sector. From our point of view, there is anyhow a strong case for it, assuming that the absorption capacity of these instruments in the capital markets is not restricted by a lack of growth.

Even if this condition is met, the issue of the interaction between the Banking- and Capital Markets Unions which was discussed in Section 4.2.3.1, must be considered. To do this, the realization that it is the banks that evaluate only locally available private information must prevail. To this end, what has to be prevented is something that has already been observed in the banking sector for quite some time, namely increasing consolidation combined with a partial withdrawal from this area. The Banking Union's high regulatory standards for banks will augment this trend, because the regulatory costs for small, regional banks will increase when measured against their overall business volume.⁹⁶ Furthermore, for the Capital Markets Union the risk exists that the importance of the framework conditions which also enable regional banks to generate sufficient profit margins is underestimated. This trend could

⁹⁶ A comparable problem can also be observed in the insurance sector, which is not only affected by the massive changes in insurance supervision, but also indirectly by the reforms in bank- and capital market supervision.

further intensify if the regional banks lose their passive burden. Although until now it has hardly been visible in the banking statistics, it is still not completely out of the question that in the process of digitalization, regional market share in the deposit-taking business will shift. The advantage of a regional anchor on the liability side would definitely be much smaller, so the size of any advantage in the residual lending business, especially in credit transactions, would be crucial.

It is easy to imagine this advantage shrinking the more these regional banks become subject to the same supervisory regulations as the trans-regional and international institutions, insofar as the question of the role of banks in the acquisition of locally available information about SMEs also depends on the scope of any differentiation in the regulatory supervision of large, trans-regional institutions in comparison to small, regional banks. Without any differentiation, it must be assumed that the financing terms for SMEs in a partially successful CMU would tend to worsen.

5 Recommendations for action

In this chapter, recommendations are made based on the analyses presented earlier in this report. They are structured so that options for action which would contribute to a strengthening of capital market financing are considered first. Due to the above mentioned complementarity effects between capital market- and bank financing, fields of action which could lead to an augmentation of bank-based corporate financing will then be identified. Of course, both of these sections contain proposals that would have positive effects on financing conditions for businesses, including SMEs. In addition, in a later section measures that specifically impact the financing terms for SME are identified.

5.1 Recommendations for strengthening capital market financing

5.1.1 Securitization

It has already been mentioned multiple times that the securitization market is of central importance for ensuring the development of a capital market union's growth-promoting effects. This is especially true because it will at least partially break up the traditionally strong financial interdependence between the insurance and banking

industries via fundamental reforms to banking- and insurance supervision. In this respect, it is important to have a functioning securitization market as an alternative refinancing source for the banking sector in order to ensure the long-term provision of lending to medium-sized companies. This is now part of a broader consensus in the discussion about the CMU. Correspondingly, EBA, EIOPA, and ESMA have recently presented their securitization report, which contains a number of recommendations.⁹⁷ The Commission's legislative proposal for strengthening the securitization market within the framework of the action plan for the CMU takes up many of these suggestions.⁹⁸ A rapid implementation of these proposals in the months to come is especially important.

Two central requirements are implemented with this legislative package. On one hand, there will be a clear regulatory standard for high-quality securitizations (STS securitizations). On the other hand, bearing in mind the historically low default rates in Europe, there will be relief for bank supervisory capital requirements for these high-quality securitizations.

At the same time, according to our evaluation, two not-insignificant elements of securitization regulation are not even considered. There is no intention of making adjustments to the way securitization is handled within the context of liquidity requirements in accordance with Article 411 ff. of the CCR. In that regard, a certain inequality remains in comparison with corporate bonds.⁹⁹ In addition, the rating of a level 1 securitization position in accordance with Solvency II presupposes the existence of a liquid market for these securitizations. Depending on how supervisory authorities interpret this legal rule there will be strong impact on the willingness of insurance companies to invest in these securities.¹⁰⁰

⁹⁷ Cf. the Joint-Committee Report on Securitisation, JC 2015 022, 12 May 2015. Comparable proposals are also found in (Beck et al., 2015).

⁹⁸ A more precise presentation of this proposal is located in Section 0

⁹⁹ Regarding this, cf. the remarks in Section 0.

¹⁰⁰ It should be noted that this rating is already a form of relief in comparison to previous regulations. It came about on the basis of a recommendation from the EIOPA; cf. the Technical Report on Standard Formula Design and Calibration for Certain Long-Term Investments. EIOPA/13/513 from 19 December 2013.

It ultimately needs to be acknowledged that the topic of market liquidity represents a sort of hen-egg problem. If banks are unwilling or unable to resort to securitization as part of their liquidity management, they will scale back their market-making activities in this sector, which inevitably leads to markets drying up. The supervisory authority's arguments that this market has been only characterized in the past by low levels of liquidity should, conversely, certainly not be merely dismissed out of hand, although there is an ongoing debate about the suitability of the measures used by the EBA.¹⁰¹

Perhaps an attempt could be made here to determine whether market liquidity could actually be augmented by way of an at least temporarily more liberal interpretation. If necessary, there could be intervention after, e.g., a three year observation period.

The Commission's legislative proposal also does not address the problem of legal uncertainty regarding securitizations. Since violations of vaguely-defined documentation and process requirements may in some circumstances jeopardize regulatory approval of securitization, banks face a substantial risk here. It is therefore up to the Commission or the EBA to request a clear definition of standards so that banks can adjust their documentation and process control accordingly.

Beyond regulatory approaches, it must be noted that the development of the securitization market also involves corresponding private sector initiatives. The more rapidly the powerful fragmentation of European securitization markets is eliminated, the more successful these initiatives will be. In Germany, there are existing institutions, i.e, the True Sales International (TSI), or the KfW Development Bank, which could provide support for such an initiative. It is crucial that European institutions participate in the establishment of a European securitization market. The Prime Collateralised Securities Initiative (PCS) in the UK is an important private sector initiative that has broad experience with securitization markets. The European Investment Bank (EIB) could also play a more active role. What will ultimately be required is a broad coordinated and supported approach that must, in particular, include representatives from the medium-sized companies.

¹⁰¹ Cf. (Perraudin, 2014).

In addition to its work with the securitization market, the Commission has also announced a review of the market for covered bonds. It is a market which has traditionally had great significance in several European countries, and is by international standards quite large. These European countries include Germany (mortgage bonds), Denmark, France, or Sweden. This market remains underdeveloped in other countries. The Commission now wants a consultation to examine the extent to which this market can be strengthened by the creation of a common European legislative framework, which makes sense within the context of the integration of European capital markets. At the same time, however, it should be noted, for instance, that the market for German mortgage bonds has over the centuries earned a high level of trust among foreign investors. Reforming this market therefore always carries the risk that this confidence will be lost. In that regard, what would probably be on offer is an initial acceptance of co-existence with national markets and a focus on an integration of market infrastructure (trading platforms, clearing houses, etc.) for an increase of liquidity in these markets.

5.1.2 Solvency II, pensions and long-term financing

Life insurance companies are one of the largest groups of investors in the capital market. In Germany, as well as in other European countries, the willingness of these investors to invest in the capital market (equities and corporate bonds) is not inordinately strong.¹⁰² Within the context of discussions about Solvency II, many parties have indicated that this problem could intensify. The Commission has responded to these concerns while a proposal to amend the Solvency II regulation within the framework of the action plan for the CMU was presented.¹⁰³ Among other things, a new long-term asset class of qualified infrastructure will be introduced which, along with other debt- and equity instruments, will have lower capital requirements. The likewise oft-discussed topic of whether private equity capital or privately-placed debt securities are excessively burdened within the framework of Solvency II, was stated by the Commission, but discussion was postponed until 2018.

¹⁰² A comprehensive analysis of this problem is found in (Beck et al., 2015).

¹⁰³ Cf. the remarks on this topic in Section 0.

This measure, while understandable, would, however, not resolve the fundamental problem of a short term-oriented solvency regulation for what is basically a very long-term investment. This regulatory approach always obscures the risk that excessive short-termism in asset investments will result. A fundamental review of the impact of Solvency II on long-term investments is urgently needed in the next few years. This was also announced in the Action Plan for the CMU.

This review should be part of an evaluation of regulation of private and public pensions at the national level. Because both pension areas have, to a considerable extent, an insurance-based design, the aforementioned problem also leads to a situation where large portions of the accumulated capital stock are neither invested in equities nor in the bond market, apart from government bonds and certain covered bonds. This could be a primary reason for the lack of depth in capital markets in many Continental European countries. In our assessment, a sustainable strengthening of European capital markets will not be possible without a certain adjustment in the retirement savings area. The discussion initiated by the Commission regarding the creation of a European market for pension products is also of importance, but the fundamental problems must, as described earlier, be resolved at the national level.

Furthermore, the impact of the regulatory approach in the area of consumer protection which was described in Section 4.2.2.4 should be observed more closely. In any case, there is a conflict of objectives here between potentially far-reaching and protected participation by small investors in the regulated capital market and a low-cost provision of suitable investment products. The extent to which the regulatory approach currently enshrined in MiFID II does not conflict with the objectives of the CMU must be carefully reviewed.

5.1.3 Integration of equity- and bond markets

The fragmentation and resulting lack of liquidity in European equity- and bond markets has already been mentioned several times. There are a number of starting points which could impact this fragmentation, although it should not be forgotten that they are due to cultural barriers and national interests. As a result, there should

be no expectation that there are short-term measures which will lead to a powerful market integration. Some key aspects were addressed in Section 4.2.2. Insofar as the bond market is concerned, the fragmentation of insolvency law is certainly one of the major hurdles. According to various reports and long discussions, there is now a revised version of the EU insolvency law which is scheduled to take effect in 2017.¹⁰⁴

The effects of this legal framework have yet to be seen, however, it must be assumed that there is still a long road ahead to a genuine harmonization of European insolvency law. In the short term, the problem of fragmented bond markets could be defused somewhat by the creation of a standardized EU bond prospectus. This could also be accomplished as a private sector initiative implemented by the big underwriters and the exchange operators.

Regarding equity markets, the question arises as to how far corporate governance mechanisms would have to be more strongly harmonized for a pan-European business model to emerge for institutional investors. Corporate law does not constitute the only hurdle in the relationship between investors and the target companies. At least as crucial is the question of whether cross-border sales structures, such as investment funds, can be implemented in a cost-effective manner. Finally, there are tax considerations, especially obstacles to the enforcement of withholding tax exemptions. The Commission wants to ascertain the factual basis of these points in order to conclude, where possible, the appropriate legal measures to take.

Finally, the issue for both equity- and bond markets is, to what extent the existing market infrastructure is able to rapidly, cost-effectively, and safely settle transnational securities transactions. As described in Section 4.2.2.3, there are already initiatives in this area, some of which are rather advanced.

In Section 4.2.2.1, it was pointed out that there are significant liquidity deficits in European capital markets. The complex web of different regulatory rules (CRR, MiFID II, EMIR) is greatly responsible for this. In sum, all of these effects lead to an increase

¹⁰⁴ Regulation (EU) 2015/848 of the European Parliament and of the Council of 20 May 2015 on insolvency proceedings.

in the cost of holding financial instruments and thus market-making activities will, from the perspective of the banks, become less attractive. Although it is certainly not the only reason for the comparatively below-average development of liquidity on European equity markets, many observers - including the central banks - agree that this combination of regulatory rules has amplified the problem. From this point of view, but not only this one, it is therefore absolutely imperative to examine the cumulative effects of European financial market regulation, which has now become very complex. The Commission has announced a consultation within the context of the Action Plan for the CMU.

A review of these cumulative effects is also important because there are a number of additional measures and proposals outside of pure bank- and insurance regulation that will impact the financial market. This includes capital market- and consumer protection regulations, especially those introduced via MiFID. The introduction of a financial transaction tax or new regulations on shadow banking would accordingly be quite noticeable.

5.2 Recommendations for strengthening bank financing

The important role played by banks in corporate financing was discussed in detail in Section 4.1. Two significant results were noted in this discussion. First, banks, like capital markets, play a crucial role in ensuring an efficient allocation of capital in the economy. In particular, their significance lies in their incorporation of private company information into their decisions to extend credit. Second, there is a complementarity effect between the banking sector and the capital market to the extent that the success of the capital market very much depends on a strong banking sector.

In its Action Plan for the CMU, the Commission also rightly considered how to augment the role of banks in corporate finance. Two points appear to be particularly significant, although they are only marginally addressed in the Action Plan. First of all, the usefulness of the bank regulation initiated by the CRD IV/CRR package within the framework of an integrated impact analysis of all European financial market regulation must be reviewed. It has already been mentioned that the Commission

has initiated a consultation within the context of the Action Plan. This was complemented by the consultation regarding the review of banking supervisory capital requirements in terms of their impact on lending which had already started on 15 July 2015 .

Secondly, an analysis of a strengthening of the central role of banks, namely their procurement and evaluation of private information, must be conducted. This role is of special significance where hardly any public information about companies is available. This is particularly the case for SMEs. The increased regulatory costs associated with the banking union pose a risk to the business models of regional banks because of problems with fixed costs. However, this would mean that the banks' information-gathering function would especially no longer function where its economic benefits are greatest, namely with SMEs.

It is quite remarkable that the Commission is contemplating the problem of prohibitively high costs of bank regulation for smaller institutions. In recognition of this problem, the Action Plan for the CMU stipulates considering the possibility of approving exemptions from the banking supervisory capital adequacy requirements for credit unions. One could therefore speak of a "CRR-lite" approach. In principle, this approach leads to the issue of whether banking institutions that do business in a limited region and are below a certain size should be completely or partially exempted from bank supervisory rules in the CRD IV/CRR package. It would also be conceivable for these institutions to revert back to national supervision and solely operate in accordance with national legislation. There would then be some sort of two-tier banking supervision. In the first tier, there would be purely national oversight for small, regional institutions, whereas banks in the second tier, which do business either nationally or perhaps even throughout Europe, would be subject to the supervisory rules of the banking union.

In a similar vein, the Commission has simplified lending by credit funds. The lending volume of these funds has seen strong growth in Europe in recent years, although there were varied responses from Member States with regard to whether these funds should be regulated as banking institutions or as funds. In Germany, these credit funds were in the past subject to banking supervision. On 12 May 2015, the

German Financial Supervisory Authority (BaFin) modified its administrative practice and allowed certain AIFs to extend these loans. The Commission has now announced in its Action Plan that it intends to examine the introduction of a uniform legal framework within the EU for the activities of these credit funds. In addition, it should be noted that it is already to a limited extent possible for EuVECA funds and ELTIFs to make loans.

To the extent that credit funds are seen as organizations which are exclusively equity-financed, this approach makes sense. The primary rationale for bank regulation is that systemic risk results from the refinancing of illiquid and long-term corporate loans with short-term deposits (liquidity and maturity transformation). This systemic risk is not present or is significantly lower if funding occurs solely via equity. With regard to fair terms, there must be a guarantee that credit funds are neither directly nor indirectly re-financed via short-term customer deposits. This is not ensured by current law because AIFs can borrow to a limited extent using the investors' collective account. To the extent that it is isolated from this problem, the operation of credit funds will stimulate competition in the banking sector, which will benefit companies seeking credit.

5.3 Recommendations for improving financing terms for medium-sized companies

The recommendations referenced in the two preceding sections should in principle revitalize financial markets and thereby improve financing terms for companies and also private households. In the Action Plan for the CMU, the Commission committed itself in particular to improving financing terms for SMEs. Further initiatives specified in the Plan are briefly addressed below.

First of all, the Commission accurately states that there remains a large financing gap for European companies. The venture capital market in Continental Europe is relatively small when international comparisons are made. Different approaches are called for here; for example, the development of the crowdfunding sector or the strengthening of the EuVECA funds. At the same time, it must be said that early-stage

financing already has strong regional roots.¹⁰⁵ Therefore, any course of action should be taken at the national level.

Insofar as Germany is affected, the shortcomings in the market for private equity were already mentioned in Section 4.2.3.3. The most significant of these are the funds' lack of tax transparency, the value-added taxation of management fees, and the tax treatment of losses carried-forward. Without at least a partial resolution of these issues, there will not be a major stimulation of the market for private equity. However, if there is a resolution, both start-ups and SMEs would benefit.

Secondly, the Commission has suggested that credit access for SMEs could be enhanced if loan data is collected in a standardized manner and made available throughout the EU. The Commission's current thinking is that participation in this exchange of data should be voluntary. With proposals of this sort, it should be remembered that banks, as mentioned numerous times, make their living from their use of private information which was expensive to collect. If they are compelled to provide costly information from the loan databases to other banks, the incentive to gather information would be reduced. This could ultimately result in lower-quality decisionmaking when extending credit and/or a decrease in the volume of lending to SMEs.

Thirdly, the question by the Commission as to the extent to which the lack of affinity for the capital market on the part of SMEs might also be a consequence of high barriers to entry. The specific proposal was to lower the requirements for the prospectus directive under certain conditions. This topic was discussed in Section 4.2.2.4. According to our evaluation, the impact of such relief is at best doubtful, particularly since the negative consequences which could arise from a loss of confidence on the part of investors are significant. Regardless, a review of the Prospectus Directive and an adjustment to changed framework conditions is certainly appropriate.

¹⁰⁵ Studies indicate that geographic proximity of investors and entrepreneurs is particularly crucial in early-phase financing. Cf., e.g., (Lutz, Bender, Achleitner, & Kaserer, 2013).

Fourthly, the Commission wants to review the idea of a uniform, EU-wide IFRS-like accounting standard for SMEs which have issued financial instruments on the Multilateral Trading System (MTS). It was previously indicated in Section 0 that this approach carries considerable risks. Although the fragmentation of accounting standards for SMEs is a problem for investors, it is nevertheless unlikely that its elimination would make sustainable changes to the capital market orientation of the SMEs. It is more likely that they would be deterred from accessing unregulated markets if it would require the meeting an "IFRS-lite" accounting standard.

Against this backdrop, the Commission's action plan only mentions the establishment of a voluntarily applicable accounting standard. In our estimation, of greater importance is the question of whether the enforcement of IFRS standards in capital market-related companies is currently being conducted with sufficient uniformity. Perhaps harmonization should be stipulated here.

Fifth, it should be mentioned that the tax disadvantages for equity investments worsens corporate financing conditions to the extent that it restricts equity capital leveraging. The Commission wants to be active within the framework of the legislative proposal for a Common Consolidated Corporate Tax Base.

5.4 Summary of recommendations for action

The recommended actions discussed in this chapter are summarized in Figure 26. They are arranged in two dimensions. On the vertical axis, in relation to where legislative responsibility. On the horizontal axis, they are then presented according to whether implementation appears possible in either the short- or long term.

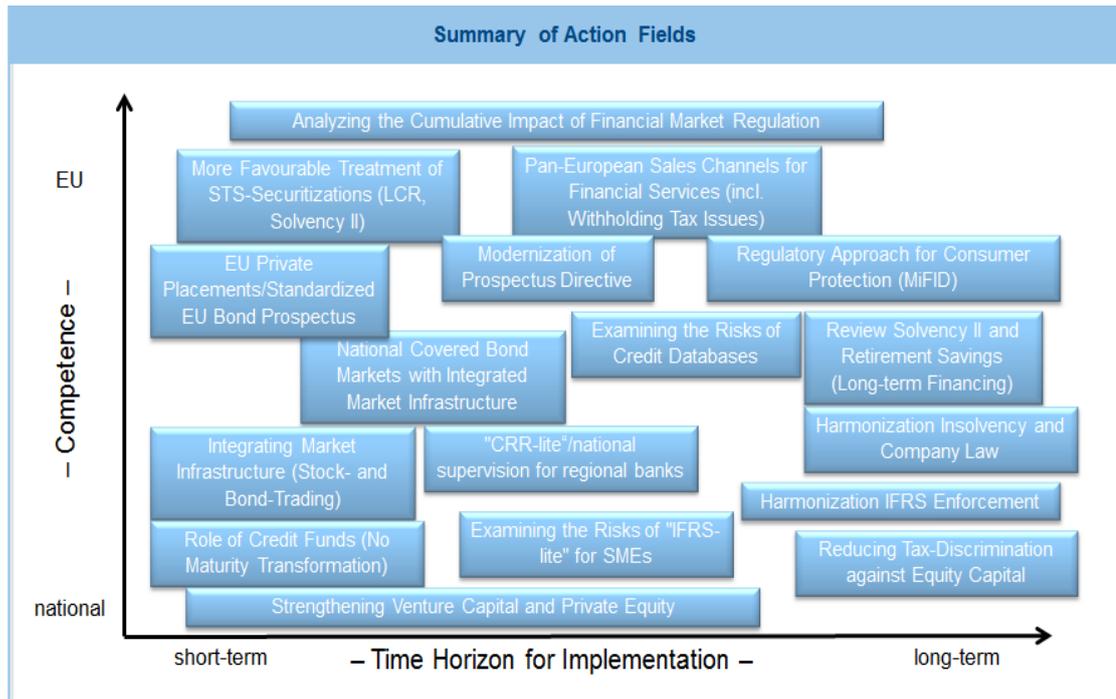


Figure 26: Overview of the action fields within the Capital Markets Union framework

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8 List of Abbreviations

ABS – Asset Backed Securities

ABCP – Asset Backed Commercial Paper

AFME – Association for Financial Markets in Europe

AIF – Alternative Investment Funds

BaFin – Bundesanstalt für Finanzdienstleistungsaufsicht (the German Federal Financial Supervisory Authority)

BCBS – Basel Committee on Banking Supervision

BMWi – Bundesministerium für Wirtschaft und Energie (the German Federal Ministry for Economic Affairs and Energy)

CDO – Collateralized Debt Obligation

CMBS – Commercial Mortgage Backed Securities

CRD – Capital Requirements Directive

CRR – Capital Requirements Regulation

CMU – Capital Markets Union

CVA – Credit Valuation Adjustment

EBA – European Banking Authority

EG – European Community

ECBC – European Covered Bond Council

EFIS – European Funds for Strategic Investments

EIB – European Investment Bank

EIOPA – European Insurance and Occupational Pensions Authority

ELTIF – European Long-Term Investment Funds

EMIR – European Market Infrastructure Regulation

ESMA – European Securities and Markets Authority

EstG – Einkommensteuergesetz (German Income Tax Act)

EU – European Union

EuVECA – European Venture Capital Fund

EVCA – European Venture Capital and Private Equity Association

ECB – European Central Bank

HQLA – High Quality Liquid Assets

ICMA – International Capital Market Association

IPO – Initial Public Offering

IFRS – International Financial Reporting Standards

KIID – Key Investor Information Document

KfW – KfW (formerly the Kreditanstalt für Wiederaufbau) Development Bank

LCR – Liquidity Coverage Ratio

LTROs – Long Term Refinancing Operations

MBS – Mortgage Backed Securities

MiFID – Markets in Financial Instruments Directive

MiFIR – Markets in Financial Instruments Regulation

MTS – Multilateral Trading System

OECD – Organization for Economic Co-operation and Development

OLS – Ordinary Least Squares

PIB – Product Information Brochure

PRIIP – Packaged Retail and Insurance-Based Investment Products

SIFMA – Securities Industry and Financial Markets Association

TSI – True Sale International

WFE – World Federation of Exchanges