

Capital markets union: a more diverse financial landscape in the EU?

This paper assesses the potential of a European capital markets union (CMU) to diversify the funding structure of European companies and foster risk sharing. CMU is meant to improve corporate financing by promoting a larger diversity of financial products and avenues of (dis)intermediation. This would allow companies to better cover their various financing needs by tapping into appropriate financing sources. However, banks and capital markets complement rather than substitute each other in financing corporate investments. Yet, CMU does not sufficiently address the high leverage of companies, which makes it difficult to obtain funding. The level of macroeconomic risk sharing across EU Member States is currently very low. It remains to be seen how successful the CMU measures will be at promoting risk sharing. CMU might also create additional risks and policy challenges because it is likely to shift credit risks to other – perhaps less regulated – institutions and because cross-border investments might increase.

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JEL classification: E61, G1, G2, G32

Keywords: capital markets union, investment, corporate finance, disintermediation, risk sharing

In reaction to the downturn in investment during the financial and economic crisis, the European Commission developed an investment plan for Europe, the so-called *Juncker Plan*, consisting of three main pillars: (1) the European Fund for Strategic Investments, (2) the promotion of investment in the real economy, and (3) measures to improve the investment environment. The capital markets union (CMU) project is part of the third pillar. CMU is meant to foster economic growth and employment as well as to increase risk sharing across EU Member States. Moreover, CMU aims to facilitate investment financing, extend available options for investors, enhance the resilience of the financial system and promote cross-border investments.

In 2015, the European Commission put together a set of 33 measures, each dealing with specific capital market aspects, in an Action Plan (European Commission, 2015a). This Action Plan is designed to strengthen market-based corporate financing (without discouraging bank financing), open up national markets and remove barriers to transnational capital flows. In this context the term *capital market* is used more broadly and includes all nonbank-based forms of financing.² The plural in “capital markets” union reflects this wide range of measures. The 33 individual measures are to be implemented by 2019. However, the heterogeneity of measures implies that the CMU “completion date” is rather uncertain, and it remains to be seen to what extent CMU will eventually be implemented. Moreover, implementation on the side of the Commission is not equivalent with being effectively operational.

There are two basic rationales behind the CMU project. The first is that corporate financing relies too heavily on debt and in particular on bank loans. This increases volatility in financing patterns. Second, European capital markets are still insufficiently integrated. With diverging insolvency rules, supervisory practices

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² In the debate on CMU, the reference to “capital markets” is often used as shorthand for sources of nonbank lending and is preferred to the rather negatively connotated expression “shadow banking” (Véron and Wolff, 2016).

Refereed by:
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Overview of CMU measures

In its 2015 Action Plan the Commission defined 33 specific measures for six main categories. The first category includes financing for innovations, start-ups and nonlisted companies. The second set of measures intends to make it easier for companies to enter and raise capital on public markets. The third category promotes investments for long-term infrastructure and sustainable projects. The fourth fosters retail investment. The fifth set of actions aims to strengthen the capacity of EU capital markets. The sixth category deals with measures to facilitate cross-border investment.

In the 2017 mid-term review, the Commission presented several follow-up and additional actions. Nine new priority actions that had not been part of the original Action Plan were introduced. Seven of these priority actions (e.g. harnessing the potential of financial technologies and facilitating the transfer of nonperforming loans from balance sheets to capital markets) are new measures within one of the above-mentioned six main categories, while two address the new objective of strengthening the capacity of EU capital markets.

and tax regimes between individual member countries, European capital markets remain fragmented.³ This fragmentation actually increased in the wake of the crisis when cross-border financing dropped considerably (see ECB, 2017).

This paper assesses the potential of CMU to foster diversity in corporate financing and risk sharing on the basis of the relevant economic literature. In view of the highly diverse nature of the CMU measures, it is however beyond the scope of this paper to discuss the current state of the individual measures. The underlying dynamic process quickly renders such a discussion obsolete.⁴ Given the scope of the Action Plan, the paper takes an EU-wide⁵ perspective and does not discuss the effects on individual countries such as Austria⁶.

The paper is structured as follows: section 1 locates the CMU project within the EU's institutional landscape. Section 2 discusses potential contributions of CMU to growth based on the literature on finance and growth. In section 3, we focus on risk sharing in the EU and ask whether CMU will enhance cross-border risk sharing. Section 4 summarizes and concludes.

1 CMU within the EU's institutional landscape

The free movement of capital is one of the four fundamental freedoms of the single European market. Thus, the core idea of CMU – the development of an EU-wide capital market through the removal of national boundaries – is not new. Rather, it is one of the key objectives of European integration that has been promoted by many EU initiatives and projects: the abolition of capital controls in the EU in 1988, the Financial Services Action Plan launched in 1999, and the proposals of the Giovannini Group in 2001 to remove obstacles to the cross-border settlement of securities transactions (for a comprehensive survey, see Valiante, 2016). Yet,

³ Naturally, numerous other factors, including pension systems, saving behavior, investors' risk taking and financial education, are also relevant in this respect.

⁴ The Commission regularly monitors the CMU implementation progress on its website (<https://ec.europa.eu/info/business-economy-euro/growth-and-investment>).

⁵ A number of statistics in this paper refer to the euro area only instead of the entire EU, which is due to reasons of data availability.

⁶ For an analysis of the possible effects of CMU on corporate financing in Austria, see Elsinger et al. (2016).

financial markets in the EU are still not fully integrated. In fact, the crisis has even reduced integration (ECB, 2017; see also section 3). In this sense, the CMU project should be seen as a further step toward a single European capital market, but it is safe to say that it will not be the final step in that direction.

Technically, the CMU Action Plan employs a rather diverse set of approaches. It includes directives, modifications and addenda to existing rules, public consultations as well as stocktaking and benchmarking tools to accumulate more knowledge before proposing a specific measure. In many instances, harmonization of national laws is envisaged only if nonlegislative means, such as self-regulation or benchmarking, are not successful. Overall, this leads to a complex host of legal acts, regulatory measures and recommendations aimed at changing economic agents' financing (and saving) decisions regarding individual financial instruments.

The heterogeneous approach of CMU is best illustrated when contrasting it with the banking union, the other landmark project currently being pursued to further the integration of the European financial markets. While both aim to foster a single market for financial services within the EU, there are notable differences between the two, not only in scope but also in the way they intend to reach their goals. While the banking union focuses on the banking sector of the euro area, CMU addresses the nonbanking part of the financial market of the entire EU. Unlike the banking union, which regulates and limits bank operations, the CMU program actively promotes capital market integration. While the banking union has shifted responsibilities for banking supervision and resolution to a European level, the Action Plan does not intend to centralize the supervision of the relevant instruments and institutions.⁷ Thus, CMU does not intend to create a new institutional architecture or a public risk-sharing mechanism (such as the common fiscal backstop for bank deposits). Instead, it aims to strengthen the current institutional framework and to address the shortfalls of the regulatory and supervisory system in cross-border trading. The numerous individual measures within the Action Plan are not as interdependent as the elements of the banking union.

2 Effects of the financial structure on economic growth

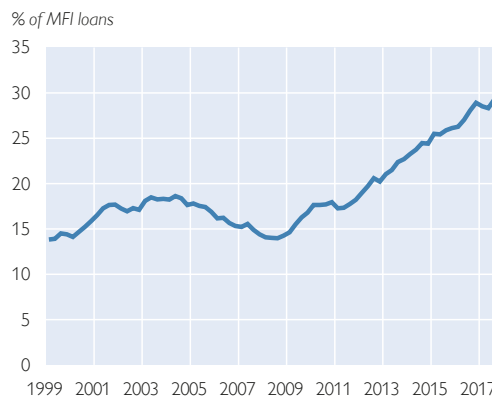
Based on the literature on finance and growth, this section analyzes the potential of CMU to foster growth. In particular, we address the objective of CMU to promote market-based financing, especially measures with regard to the financing of small and medium-sized enterprises (SMEs) and the role of other financial institutions. Furthermore, we discuss whether high leverage is an impediment for financing.

2.1 CMU and market-based (debt) financing

The first central assumption of the CMU project is that the European corporate sector depends too much on bank financing. While earlier studies had indicated that it is irrelevant to the growth of an economy whether the financial system is more bank or more capital market based (e.g. Levine, 2002; Beck and Levine, 2002, 2004), recent studies have suggested that capital market-based systems are better able to absorb shocks and have higher long-term growth rates (Levine et al.,

⁷ However, with its proposals on the review of the European supervisory authorities, the European Commission has started first steps toward more centralized supervisory arrangements for capital markets.

Chart 1

Bonds issued by euro area NFCs

Source: ECB.

2015; Gambacorta et al., 2014). However, these findings are not uniform. Bolton et al. (2013), for instance, conclude that a close bank-borrower relationship has a stabilizing effect. Recent studies have shown that with economic and technological progress, the importance of the services provided by banks for economic activity is decreasing, while the services provided by securities markets are gaining importance. This development is also driven by advances in technology as well as the greater availability and application of hard information. In particular, market financing is better

suited for driving innovation and productivity and for financing new sources of growth (for an overview, see Popov, 2017). Thus, by promoting market-based financing, CMU could contribute to enhancing the EU's productive capacities.

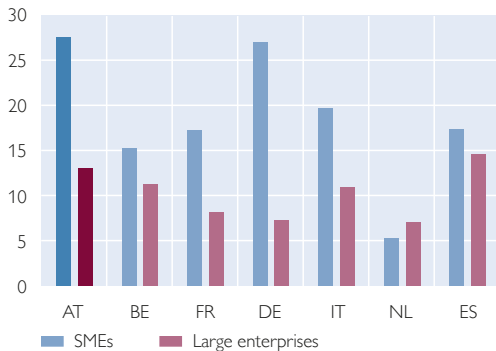
The shift from loans to market-based debt is not a new phenomenon. It had already been gaining momentum before CMU. In the euro area, a simple disintermediation ratio, defined as the ratio between debt securities issued by nonfinancial corporations and bank loans granted to nonfinancial corporations, has almost doubled since the onset of the crisis (chart 1).⁸ Yet, although corporate bonds have partly offset bank loans as a funding tool, there are limits to substituting bank loans by bond financing as they differ in a number of areas (see Waschiczek, 2004; Elsinger et al., 2016). For one, there is the issue of strongly digressive costs in issuing bonds, while costs for bank loans generally increase in proportion to the loan volume. Bonds come with a series of one-off costs, which are mostly unrelated to the credit volume. The adaptation of the Prospectus Directive within the CMU Action Plan aims to address this issue by introducing simplification and flexibility regarding the securities prospectus for all types of issuers. However, the directive leaves a number of cost factors unchanged. Furthermore, bank loans are better suited than bonds to overcome information asymmetries between lenders and borrowers. Long-standing relationships give banks enhanced insights into the finances of their customers and enable them to arrive at a more informed assessment of borrowers' credit quality. The implicit relations that emerge over time between banks and their borrowers facilitate negotiating services that cannot be agreed upon upfront. Improving and standardizing the public availability of credit data related to SMEs with initiatives such as the Prospectus Directive may facilitate bond issuance, but it will not make bonds as flexible as bank loans.

⁸ From its pre-crisis high in 2007 to its post-crisis low in 2015, lending by banks in the euro area to nonfinancial corporations fell by EUR 545 billion. Capital markets largely compensated for this shortfall. Outstanding corporate bonds rose by EUR 429 billion between 2008 and 2015 as companies took advantage of record-low interest rates.

Chart 2

Amounts owed to credit institutions

% of balance sheet total, 2014



Source: BACH database.

2.2 Addressing SME finance

In light of the digressive cost structure when issuing bonds and information asymmetries that weigh more heavily for smaller and more opaque enterprises, SMEs depend more strongly on banks for external financing. In some European countries, the share of bank loans in the balance sheet total was more than twice as high for SMEs than for large enterprises in 2014 (chart 2). CMU intends to facilitate the financing of SMEs by increasing securitization of SME loans (see next subsection). It also aims to help smaller companies overcome the information barriers for raising

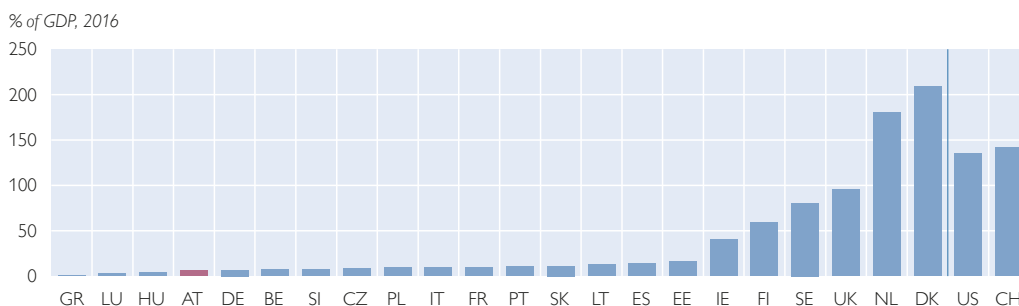
external funds. Given the reduced availability of transparent and credible information on the economic condition of smaller firms, the Action Plan includes measures to investigate how to develop or support EU-wide information systems. As information gaps between capital providers and capital-seeking companies increase the cost of external financing, a higher degree of transparency may contribute to lowering companies' financing costs or simply make fundraising possible in the first place. Moreover, greater transparency may improve risk identification and pricing in the financing process, thus reducing the misallocation of capital. However, direct contact with investors and the need to keep them thoroughly informed – in particular when raising funds on a regulated market – can have considerable repercussions on the corporate governance of a company. Other channels to improve the supply of finance to SMEs include the promotion of private placements and venture capital. However, both these channels merely concern certain types of SMEs. Private placements are a form of raising debt financing and are predominantly used by larger SMEs (and the smaller segment of major enterprises). Venture capital, which is mostly equity finance, tends to be applied in particular by technology firms in the earlier stage of their development.

2.3 Shifting intermediation to other financial intermediaries

These considerations give rise to the notion that banks and capital markets do not substitute but complement each other. This is reflected in a number of CMU measures that aim to increase the capacity of EU banks to finance the real sectors of the European economy. A case in point is the proposal on simple, transparent and standardized (STS) securitization. While securitization may increase the willingness and/or capacity of banks to extend credit, it does not reduce firms' dependency on banks, and may even create room for more loans in banks' balance sheets. However, while potentially increasing the investor base for bank loans to the corporate sector, securitization, even in its revised form, still entails considerable systemic risks.⁹ The increase of available credit due to the expansion of the securitization market

⁹ See for example *Levieuge and Pollin (2017)* and the literature cited therein.

Chart 3

Total investment of providers of funded and private pension arrangements

Source: OECD.

seems to have played a major role in fueling the dynamics of the U.S. subprime mortgage crisis (Segoviano et al., 2013).

Apart from the initiative to revive securitization, other CMU measures that aim to strengthen the lending capacities of the European banking sector include an EU-wide framework for covered bonds and similar structures for SME loans. Concerning both securitization and covered bonds, banks would retain their economic function in information provision but not in ultimate funding. Moreover, the securitization of loans or the issuance of covered bonds do not only concern loans to firms, but also mortgage loans to households. Ultimately, these measures might result in more mortgage lending to the household sector and thus actually be detrimental to more growth (e.g. Beck et al., 2012). Finally, given that in most EU Member States banks are universal banks, they would have a key role in capital market financing of enterprises by providing advice and guidance.

In essence, CMU does not aim at promoting direct financing of enterprises by the real sector of the economy but rather at shifting intermediation to other financial intermediaries such as mutual and pension funds, insurance companies and venture capital funds. This includes newer types of intermediaries like loan-originating funds, for which the Action Plan envisages an enhanced role. Additionally, these intermediaries will be important investors in securitized products and covered bonds. While in some respect institutional investors perform similar financing functions as credit institutions, they tend to have different strategic objectives regarding their time horizon, underlying risks and liquidity. Moreover, their lesser role in many EU Member States stems from different institutional arrangements such as a smaller importance of pension funds as a consequence of pay-as-you-go pension systems. Chart 3 shows that total assets of providers of funded and private pension arrangements are very low in most EU Member States (with the notable exception of some northern countries and the U.K.) and distinctly lower than for example in the U.S.A. and in Switzerland. These institutional arrangements are beyond the reach of CMU, and it is doubtful whether they should be adapted only for reasons of corporate financing. Furthermore, institutional investors are often less regulated than banks. This is especially true in light of the increase in banking regulation which we have seen in response to the crisis. At the same time, institutional investors often maintain relationships with the banking systems (e.g. via holdings). Thus, while the basic principle of disintermediation is to spread risks among

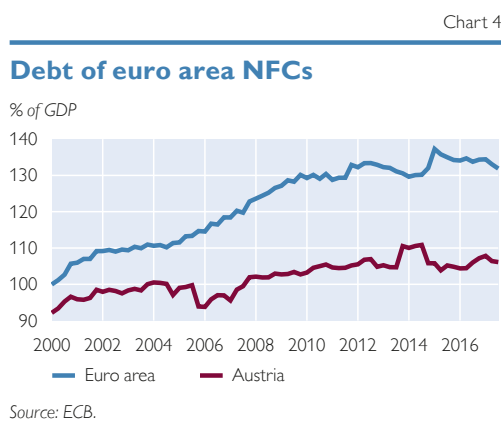
a wide array of investors rather than among comparatively few credit institutions, disintermediation might bring about risks of its own. In terms of bank-related risks, the European banking union aims to scale up protection at the European level. CMU, however, does not envisage similar arrangements concerning risks for other intermediaries to the same extent.

2.4 High leverage as a barrier to financing

Moreover, high debt levels might constitute an essential barrier to financing. As chart 4 indicates, corporate debt as a percentage of GDP increased considerably in the euro area between end-1999 and the onset of the crisis (end-2008). It has continued to rise since, albeit at a significantly slower pace.¹⁰ The lackluster loan dynamics since the onset of the crisis can most likely be attributed to the buoyant loan growth in the preceding period. With rising debt, borrowers' ability to repay becomes progressively more sensitive to lower revenues and profits as well as higher interest rates (Cecchetti et al., 2011). At the same time, in an economic downturn, the pressure of debt service will cause highly leveraged firms to cut back investment more severely than low-leverage firms. Thus, high leverage may make the economy less stable (Bernanke and Campbell, 1988) and lead to a debt overhang (Myers, 1977).¹¹

Empirical studies on the relationship between credit to the private sector and economic growth confirm this notion. While earlier studies found a positive effect of credit on macroeconomic performance, especially in the earlier stages of a country's economic development, recent studies suggest that these effects on macroeconomic performance are not always positive and may even become negative (Arcand et al., 2015; Beck et al., 2014). Manganelli and Popov (2013) find that at higher private credit-to-GDP ratios, industries with high growth opportunities are hampered. Similarly, Cecchetti und Kharroubi (2012) show that credit booms harm in particular those industries that have either lower asset tangibility or high R&D intensity, i.e. industries that are commonly deemed engines of growth.

These findings lead to the conclusion that reviving debt financing – be it by banks or nonbank intermediaries – may not be of much help in the current situation. Yet, although concerns about large debt would warrant otherwise, the Action Plan does not touch upon debt reduction and includes few measures regarding the capital structure of the corporate sector. The measures of the Action Plan to support equity financing in the EU are mostly targeted at financing the earlier stages of enterprises



¹⁰ Debt is defined here as debt securities, loans, pension entitlements, claims of pension funds on pension managers and entitlements to nonpension benefits, trade credits and advances.

¹¹ Debt overhang refers to a situation in which a firm whose debt has become too large cannot take on additional capital to finance future projects, even if these projects could generate a positive net present value, because the anticipated profit would be used to service existing liabilities.

(e.g. venture capital), i.e. enterprises that generally have not tapped bank loans.¹² The biggest single item within the Action Plan regarding firms' capital structure is the proposal to introduce a corporate tax offset allowance for equity issuance as part of the legislative proposal on a Common Consolidated Corporate Tax Base (CCCTB). Given the long history of this debate, it remains to be seen how successful this initiative will be. Moreover, the extent to which equity financing, for lack of tax deductibility, is relatively more expensive than debt does not only depend on the level of the tax rate, but also on other specifics of the tax system, such as additional tax deductions and the allocation to provisions. Interest rates also play a key role. In the current low interest rate environment, the cost advantage of debt financing is less relevant than with high nominal interest rates.

Overall, CMU might contribute to a larger diversification of financing sources, beyond "traditional" bank lending. However, to what extent smaller enterprises, which currently rely on bank lending more than larger companies, will benefit from CMU remains to be seen. The Action Plan clearly addresses only some of the factors that hinder SMEs' access to market finance. The same may hold for greater geographical diversification. A larger variety of funding sources may go hand in hand with risks associated with increased cross-border capital flows. Possible implications are discussed in the following section.

3 Increased private risk sharing across EU Member States

The second central premise of the CMU project is that insufficient financial integration within the EU constitutes a major impediment to cross-border risk sharing. This section gives an overview of the extent of risk sharing. Here, we discuss both potential reasons for the currently low risk sharing in the EU and the CMU measures to enhance risk sharing in the EU.

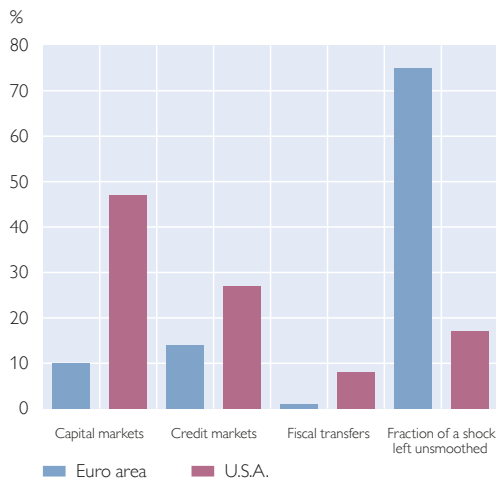
3.1 Risk sharing in the EU is low at present

Risk sharing helps absorb fluctuations in gross domestic product. Regions or countries affected by a shock or in a recession receive income or funds from other countries or regions and can keep consumption levels stable despite the downturn. Smoothing consumption is generally considered an effective means to promote welfare. In order for risk sharing to actually have this effect, the various EU economies would have to be developing differently. If all EU countries experience a similar drop in GDP, risk sharing within the EU will not be effective.

Under certain circumstances, cross-border risk sharing could contribute to higher growth. According to Kalemli-Özcan et al. (2003), risk sharing facilitates exploiting the gains from industrial specialization by providing insurance against the risks arising from specialization. Furthermore, increased risk sharing could foster growth by shifting portfolios to riskier projects with higher returns (Obstfeld, 1994). At the same time, enhanced risk sharing has ambiguous effects on the savings rate and consequently on economic growth (Levine, 1997). For common currency areas such as the euro area, augmented cross-border risk sharing could have further positive macroeconomic effects. By helping synchronize business cycles, it would

¹² The Action Plan proposes pan-European venture capital fund-of-funds and multi-country funds, a revision of the EuVECA and EuSEF legislation, and a study on tax incentives for venture capital and business angels. In the same vein, the prudential treatment of private equity in Solvency II should be reassessed.

Chart 5

Risk sharing – U.S.A. and euro area

Source: Alcidi et al. (2017).

contribute to an effective, smooth and even transmission of the single monetary policy and help deal with asymmetric shocks when national monetary policies are no longer viable (Jochem and Reitz; 2010; Ioannou and Schäfer, 2017).

Asdrubali et al. (1996) distinguish three channels of risk sharing: first, risk sharing through the ownership of assets via capital markets (*capital market smoothing*). Individual investors can insure themselves against local income risks by cross-border diversification of their equity investments. In the case of a negative shock in a region, the resulting income decline is at least partially borne or compensated for by other regions. Cross-border equity investments can smooth both persistent and transitory

shocks because capital market smoothing entails claims to the output of another state or region. The size of this claim hinges on the economic situation of the region in which the investment took place, in other words it is state contingent. The second channel works via lending and borrowing from other Member States or regions (*credit market smoothing*).¹³ In this case economic agents aim to alleviate the impact of a shock on consumption by lending and borrowing. A third smoothing mechanism is (*federal*) *tax transfer system smoothing* (e.g. unemployment insurance, revenue sharing, automatic stabilization through centralized taxes and social benefits¹⁴ or institutions like the European Stability Mechanism). CMU deals with the first two channels that smooth shocks via market transactions.¹⁵

Recent evidence suggests that the degree of risk sharing in the EU is low and less pronounced than in the U.S.A. or within some EU Member States (e.g. among the federal states of Germany, see Hepp and von Hagen, 2013). Alcidi et al. (2017), for instance, show – using the methodology introduced by Asdrubali et al. (1996) – that in the period from 1998 to 2013, shocks in the U.S.A. were smoothed significantly (83%), while shocks in the euro area were only smoothed by 25% (chart 5). All smoothing channels are more important in the U.S.A. than in the euro area. In particular, capital markets smooth shocks by 47% in the U.S.A. and only by 10% in the euro area. Credit markets smooth shocks by 27% in the U.S.A. and by 14% in the euro area. Similar results are reported by Furceri and Zdzienicka (2013). They found that between 1999 and 2010 shocks in the euro area were smoothed

¹³ Strictly speaking, this channel allows for intertemporal risk sharing using international markets and not for international risk sharing. Sometimes the literature refers to this channel as “consumption smoothing channel.”

¹⁴ In the EU, these mechanisms are either nonexistent or weak. Existing redistributive instruments, such as the Structural Funds or the Cohesion Fund, have long-term goals of convergence in the real economy, but they are not suited to compensate for temporary country-specific income fluctuations. Regarding plans for a European unemployment insurance scheme, see e.g. Beer et al. (2014). Further channels of income smoothing are commuting and migration.

¹⁵ The third channel is discussed in the contribution by Prammer and Reiss (2018) in this issue.

by 34%. Smoothing was mainly accomplished by credit markets (approximately 31%). Capital markets had a smoothing effect of about 8%.¹⁶ The differences in the results of Alcidi et al. (2017) and Furceri and Zdzienicka (2013) can be attributed to methodological choices and the time period analyzed. Nevertheless, the main results emerging from these analyses do not differ substantially: smoothing, and in particular capital market smoothing, is much more pronounced in the U.S.A. than in the euro area. As capital markets in the U.S.A. are more integrated than in Europe, further integration of EU capital markets as envisaged by CMU could lead to higher risk sharing among EU Member States. The ECB's financial integration composite indicator that aggregates data from a selection of market-specific indicators suggests that even long-term progress in financial integration in the euro area has been limited (ECB, 2017). In the third quarter of 2016, the quantity-based financial integration composite indicator that reflects the number of intra-euro area cross-border holdings was on approximately the same level as in 2004. In addition, the price-based indicator that reflects price dispersion on money, bond, equity and banking markets suggests roughly the same degree of financial market integration as between the year of the introduction of the euro and the year 2004. The indicator does show an increase in financial market integration before the crisis. However, according to the ECB (2017), it is likely that this increase was a result of the underestimation of fundamental risks in this period. According to these indicators, the level of integration dropped considerably during the crisis. These developments suggest that there is room for deeper integration of European capital markets.

3.2 Will CMU enhance risk sharing in the EU?

One of the six main categories of the CMU Action Plan is devoted to enhancing cross-border investments. The proposed measures are organized under the following headings: remove national barriers to cross-border investment, improve market infrastructure for cross-border investing, foster convergence of insolvency proceedings, remove cross-border tax barriers, strengthen supervisory convergence and capital market capacity building, and enhance the capacity to preserve financial stability. To date, only a few measures have been implemented. However, some additional legislative proposals already exist. In the following, we will discuss the potential of the proposed measures to increase risk sharing in the EU.

Consumption smoothing via cross-border risk sharing in the EU requires that equities and securities play an important role in household wealth. According to financial accounts data, in 2016, 17% of total financial assets of EU households were equities, 2% debt securities, 7% investment fund shares and 40% insurance policies and pensions. Hence, overall indirect holdings amounted to 47% of total financial assets of households. As indirectly held funds might eventually be invested differently than directly held funds, the distribution between these two types of funds might have an impact on cross-border investments (see below). Even though aggregate data show a high percentage of financial assets in household portfolios, data from the Household Finance and Consumption Survey (HFCS) show that only a minority of households own financial assets (apart from deposits). In the

¹⁶ Furceri and Zdzienicka (2013) additionally report capital depreciation to have a negative effect on smoothing. Alcidi et al. (2017) include capital depreciation in the capital markets channel in order to make euro area results comparable with U.S. results. For further findings on risk sharing in the euro area, see ECB (2017).

countries taking part in the survey, 9.4% of households owned mutual fund shares, 4.6% bonds, 8.8% publicly traded shares and 30.3% voluntary pensions or life insurance policies in 2014 (ECB, 2016). Higher-income and wealthier households have higher shares of equities and securities. The participation rates suggest that only a minority of households would be affected by promoting cross-border investments. This is not necessarily an impediment to stabilizing aggregate consumption. However, if a larger share of households should benefit from risk sharing, participation rates must be higher, and investments must also be made in other countries or regions.

The European Commission (2017) suggests that in order to promote capital market investments of EU households, retail investors need to have “access to attractive investment propositions on competitive and transparent terms” (e.g. EU-wide personal pensions). A larger group of households might benefit from the internationalization of indirect investments via e.g. pension funds (see also below). As discussed in section 2.3, CMU does not aim primarily at promoting direct financing of companies by households but rather by other financial intermediaries, e.g. pension funds, mutual funds and insurance companies. However, stepped-up capital market participation of households would increase portfolio risks. Furthermore, consumption smoothing through capital markets would be regressive as wealth inequality is more pronounced than income inequality. Greater tolerance for differences in income and wealth in the U.S.A. might make capital market smoothing more apt for the U.S.A. than for the EU (D’Imperio and Schelke, 2017).

Regarding cross-border investments, one reason for low risk sharing via the capital markets channel in Europe is investors’ equity home bias (French and Poterba, 1991). Investors only hold a small share of their equity investments in foreign equity.¹⁷ Chart 6 (left panel) shows that domestic equities play the most important role in the equity portfolios of euro area investors. At the end of 2016, the share of assets that euro area investors (all sectors) allocated to equities from other euro area countries in relation to the share they allocated to domestic market equities stood at 0.39. A ratio of 1 indicates identical portfolio shares, and a lower ratio indicates a stronger home bias (ECB, 2017). The pronounced home bias in Europe suggests a strong potential for CMU to encourage cross-border investments.

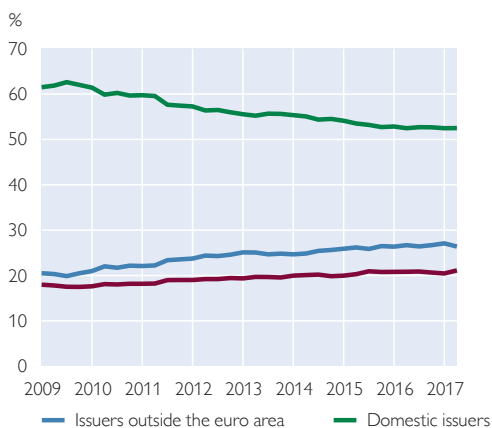
Coeurdacier and Rey (2013) distinguish three classes of explanations for home bias: hedging motives, asset trade costs, and informational frictions and behavioral biases. Hedging motives in otherwise frictionless financial markets could be related to exchange rate risk. Clearly, within the euro area exchange rate risk does not play a role. Furthermore, for the EU Member States outside the euro area, CMU does not aim to alter the exchange rate regime. Hence, CMU does not deal with this source of home bias.

Further obstacles for cross-border investments are trade and transaction costs, differences in the taxation of national citizens and foreigners, as well as country-specific

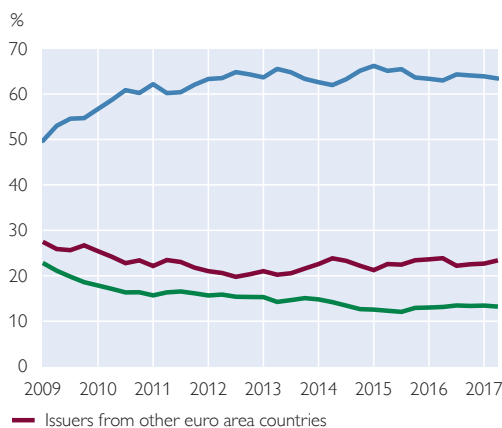
¹⁷ A strong home bias is not necessarily associated with low risk sharing. For example, despite a pronounced home bias, risk sharing might be high if the credit market channel works smoothly. On the other hand, a reduction of the home bias will not necessarily lead to more risk sharing if aggregate investment is low or the returns to foreign and domestic assets are highly correlated. However, Sorensen et al. (2007) empirically show that a lower home bias goes hand in hand with higher macroeconomic risk sharing.

Equity holdings in the euro area

All sectors



Investment funds



Source: ECB.

differences in the legal framework.¹⁸ CMU includes several measures to lower transaction costs such as removing national barriers to the free movement of capital, fostering convergence of insolvency proceedings and reducing tax barriers, e.g. by simplifying the withholding tax procedure.

Regarding informational frictions and behavioral biases, Coeurdacier and Rey (2013) mention exogenous information sets of investors (i.e. potential country-specific differences regarding the assessment of future domestic and foreign stock returns) or endogenous information acquisition that leads to a specialization in the local capital market. According to these authors, behavioral biases partly arise from overconfidence toward local assets and the role of familiarity in the portfolio choice. CMU can help lower the costs of information acquisition by fostering convergence of insolvency procedures and removing tax barriers. According to Darvas and Schoenmaker (2017), institutional investors can play an important role in lowering home bias. The authors show that the role of institutional investors for risk sharing increases with the size of the assets managed. The underlying rationale is that larger investors tend to be professional investors, who exhibit a smaller home bias. A comparison of the geographical distribution of equity holdings of investment funds (chart 6, right panel) with the geographical distribution of total equity investments (chart 6, left panel) suggests that investment funds' equity holdings are indeed more dispersed geographically. Hence, support for institutional investors by CMU (as discussed above) could contribute to lowering households' home bias. However, the fact that a large proportion of euro area investment funds' assets are invested outside the euro area implies that increased investment by households in investment funds could be a disadvantage for investment financing in the euro area and probably also in the EU.

Credit market smoothing is less suitable for risk sharing than capital market smoothing for several reasons. For one, effective cross-border risk sharing requires

¹⁸ However, Coeurdacier and Rey (2013) conclude that transaction costs would need to be very large to explain the equity home bias – unless diversification benefits are very small.

sustainable financing relationships. Equity made available across borders is more stable than debt capital. For creditors – especially in times of crisis – there is a roll-over risk upon expiry of a loan agreement. Strong dependence on debt instruments also increases the risk of a liquidity crisis (Kose et al., 2009). Second, credit markets are prone to collapse in prolonged periods of crisis and are insufficient as stand-alone shock absorbers (Ioannou und Schäfer, 2017). In this respect, Furceri and Zdzienicka (2013) show that smoothing is smaller in times of recessions compared to normal times. This result is driven by a lack of credit market smoothing, especially in times of large downturns when loans are not available.

Foreign lending currently does not play an important role in consumption smoothing in Europe. At the end of 2016, 86% of outstanding loans extended by monetary financial institutions (MFIs) to non-MFIs in the euro area were domestic loans. The share of assets that euro area investors (all sectors) allocated to debt securities from other euro area countries in relation to the share they allocated to domestic debt securities stood at 0.62 at the end of 2016 (ECB, 2017).

According to the European Commission (2015c), the crisis-induced weak development of bank lending in some Member States was a consequence of low risk sharing as companies depended heavily on domestic banks. The relevant literature suggests that lowering the dependence on domestic banks' loan supply can indeed facilitate credit market smoothing. Barboni (2017) shows that when domestic lending is impaired because of a shock, the presence of foreign banks can alleviate supply shocks on the loan market. The role of access to loans for SMEs in risk sharing was analyzed by Hoffmann and Shcherbakova-Stewen (2011). The starting point for their analysis was the observation that risk sharing among U.S. states is more pronounced in booms than in recessions, in particular in those states in which SMEs play an important role. SMEs depend strongly on conditions in the local loan market, and access to loans changes with the business cycle. Banking deregulation in the 1980s attenuated the impact of the business cycle on risk sharing by improving credit market access of SMEs and reducing their dependence on the local loan market.

In this respect, the ECB (2017) suggests that more cross-border bank mergers and the establishment of pan-European banks would increase retail bank integration and therefore facilitate risk sharing via credit markets. Several measures proposed within the scope of CMU are potentially favorable in this respect, e.g. the harmonization of insolvency laws. However, it must be taken into account that cross-border bank lending could transmit country-specific shocks from the home country to the host country (e.g. Ongena et al., 2015; Popov and Udell, 2012). In this context, CMU includes measures to strengthen supervisory convergence.

Finally, it should be noted that even if CMU did make a major contribution to enhance cross-border investment, from a theoretical point of view the optimal level of risk sharing would not be reached. Farhi and Werning (2017) show that even with complete markets, households would tend to underinsure because they ignore macroeconomic externalities when insuring against country-specific idiosyncratic shocks.

4 Summary and conclusions

There is no consensus in the literature as to whether bank-based or market-based financial systems are better suited to foster investment and growth. CMU may improve financing conditions by diversifying financial products and creating

avenues for (dis)intermediation. This may allow firms to tap additional financing sources and thus be able to better meet their various financing needs. Moreover, as seen at the height of the financial and economic crisis, a greater diversity of funding channels may strengthen the stability and resilience of corporate financing.

As cross-border investments are relatively low in the EU, private risk sharing across markets does not play a significant role in the EU and is much less pronounced than in the U.S.A. CMU provides several proposals to facilitate cross-border investment and thereby private risk sharing in the case of idiosyncratic country-specific shocks. However, it remains to be seen just how successful these measures will eventually be.

At the same time, the potential benefits from CMU come at the cost of higher risks. Depending on the extent to which CMU will be shifting financing of European firms from banks to nonbanks (“shadow banks”), it will diversify the range of entities that bear the risk associated with providing financing. The concentration of risk within one sector could decline but risks might shift to other – perhaps less regulated – institutions. This may create additional risks, such as higher complexity via cross-holdings.

Furthermore, funding models vary significantly across individual EU Member States, with bank lending and other forms of finance playing more or less important roles. CMU may thus have different effects in different parts of the EU. In any case, the results of CMU will materialize only in the medium to long term because it will take some time until measures are implemented and even more time until they actually show effect. Moreover, the impact of CMU must be seen in the context of other measures. CMU has been conceived as part of the Juncker Plan and other financial regulatory projects such as the banking union. In fact, measures to regulate the banking sector may well mitigate the pressure to resort to other intermediaries. Overall, however, CMU is certainly another step toward a more diverse European financial landscape.

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