



SAFE Policy Center

# Comments on the EU Commission's Capital Markets Union Project

White Paper No. 27

**SAFE | Sustainable Architecture for Finance in Europe**

A cooperation of the Center for Financial Studies and Goethe University Frankfurt

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## **Executive Summary**

The EU Commission's Capital Market Union project strives for a deeper integration of Europe's financial markets. This market completion is not only in line with the philosophy of European integration. By enhancing the choice set of consumers as well as providers of financial services, it should also foster medium-run growth and employment. It is difficult to take issue with this project. In fact, we essentially share the objectives. Questions, however, arise from the diagnosis. It is held that Europe's lackluster recovery from the Great Financial (and the ensuing European Sovereign Debt) Crisis is, in particular, a consequence of the structure of its financial markets – too much reliance on bank intermediation. This might be the case. To produce conclusive evidence, however, requires more than contrasting financial structures with growth rates across a few countries since the crisis' trough.

Starting from a functional finance perspective, therefore being basically agnostic about the optimal structure of providers of services, we focus on the comparative efficacy with which particular functions are discharged. In particular, we highlight why loans to SMEs, highly information impacted, are difficult to standardize. Addressing those issues, as far as possible, should potentially ease the scope of banking beyond banks. But what ultimately counts is, if this translates into more employment and growth, as the EU Commission rightly calls for. Moreover, in addition to efficiency of intermediation services, the stability dimension is of the essence. And this has much to do with the adequate pricing of risks.

To assess institutional innovations, most of them in effect endogenous, we start from a basic principle. Policy intervention is only called for, when there are externalities or other issues of market imperfection (large economies of scale, scope, network externalities) and an appropriate public sector solution is available. Policies, according to the functional finance perspective, should be essentially neutral (agnostic) in terms of institutions (level playing field). Our main angle, from which we assess proposals, are information asymmetries and the agency problems (screening, monitoring) which arise as a result. Within this perspective, we make a number of more specific proposals on how to create an environment which allows for a reduction of frictions with regard to the treatment of default risk (explore an optional 29<sup>th</sup> insolvency regime). Mitigating information asymmetries is also of the essence to allow for robust access to risk capital for SMEs and upstarts. This includes, potentially, a reassessment of asset allocation strategies for old-age insurance. Supporting financial literacy would be conducive. We also make suggestions on retention ambiguity, hampering the resilience of securitization markets. Finally, we raise issues with regard to the infrastructure of markets: its minimum required liquidity and the resulting efficiency in price discovery.

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## I. Integrating Europe's financial markets

The EU Commission has launched an ambitious project for deepening financial market integration amongst its 28 member states. The goal of a capital markets union is in line with efforts to strengthen the EMU's institutional architecture. In the wake of the financial crisis, efforts were initially focused on implementing a banking union, in particular, a single supervisory mechanism, a single resolution authority, as well as common policies towards deposit insurance.

The capital markets union now addresses the non-bank dimension of financial intermediation. Its core objective is to get Europe growing again, on a sustainable basis. This also should entail better employment perspectives. The underlying diagnosis, as concisely spelled-out in the Green Paper (EU COM 2015), holds that Europe's financial system does not deliver. A major reason for Europe's lackluster performance, as compared to the U.S., is seen in its too strong reliance on bank intermediation in the external funding of non-financial firms, in particular, its most dynamic medium-sized ones. Therefore, reducing hurdles standing between ultimate savers and final investors (in non-financial assets or real capital) should foster potential growth.

The Green Paper's underlying philosophy – reduction of barriers, completion of markets – is, of course, a staple of EU integration, ever since the Rome Treaty of 1957, which already included the unimpeded flow of funds across Europe as a desideratum. Enlarging the opportunity scope for ultimate savers and final users of funds should lead to capital being deployed in its most productive uses. And, as a corollary, risk-adjusted returns should rise – provided the level of competition among the providers of financial services is appropriate.

We largely share the EU Commission's line of reasoning –the philosophy as well as the objectives. The issues we would like to raise are questions in terms of the diagnosis, i.e. the description and identification of Europe's underlying problems. Questions arising here should be answered with sufficient confidence before embarking on such a project in institutional re-engineering. Therefore, in the following, we briefly sketch the Green Paper's main propositions. Then, we outline our approach, addressing comparative financial institutions issues – the functional finance approach view. Given that the U.S. is,

even if only implicitly, the Green Paper's poster case, we briefly portray the substantially less positive view of nonbank intermediation, prevailing in U.S. policy-maker circles. However, given that market completion is generally beneficial and also in line with the functional finance approach, we suggest a few areas which might contribute to this – but which need further research.

## II. The Green Paper's diagnosis and suggested cures

The Green Paper has a well-defined objective, i.e. enhancing the scope of non-bank based intermediation: “capital markets need to play a larger role in channeling financing to the economy” (EU COM 2015, p.2). Also, ultimately, the objective is to “move the EU closer towards a situation where, for example, SMEs can raise financing as easily as large companies; costs of investing and access to investment products converge across the EU; obtaining finance through capital markets is increasingly straightforward; and seeking funding in another Member State is not impeded by unnecessary legal or supervisory barriers” (EU COM 2015, p. 4).

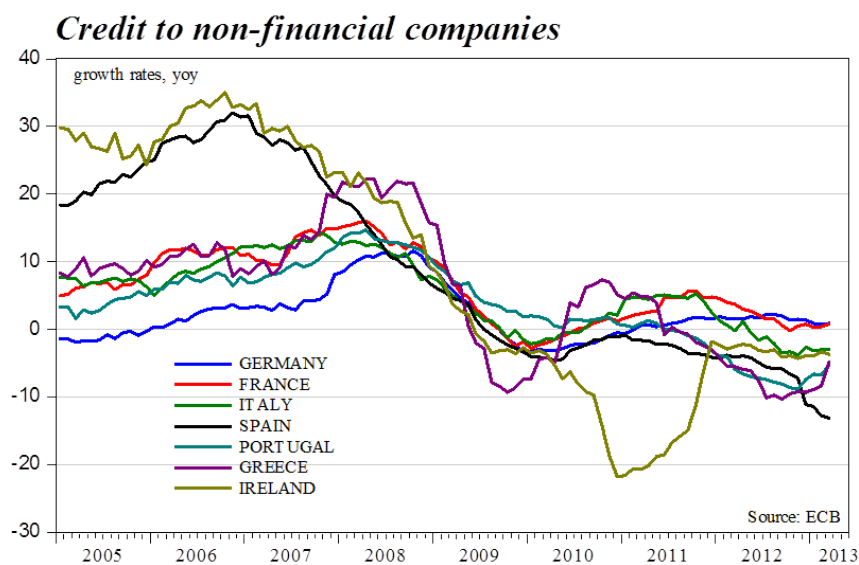
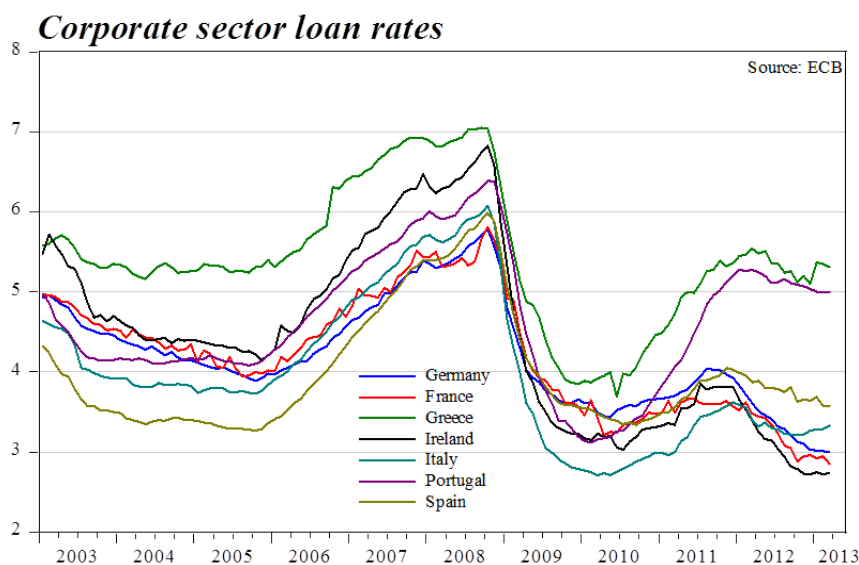
It appears difficult to take issue with these proposals. They appear to make good sense. But, why are they then so difficult to implement – why have they not been realized for a long time? Can we confidently hold that “capital markets *need* to play a larger role”?

Before drawing such a conclusion – with substantial implications – a number of issues need to be addressed, among them:

- What, from a capital markets' perspective, makes SMEs different? Are there structural reasons for small firms having higher costs of capital?
- Where (and why) do differential costs in access to capital market products arise? Are some of the obstacles (“...historical, cultural” (EU COM 2015, p. 9), more generally: habits and preferences ) a policy issue?
- Why – and which – barriers in regulatory rules, as well as in their implementation, still prevail?

For example, there are, for sure, economically sound reasons for differential costs – also across nations within the European Union. Those differences reflect national policy preferences, perfectly legitimate, in their interaction with the suppliers of funds. Graphs 1

and 2, for example, portray differential growth rates in loans as well as in costs of credit across Europe. Is that a policy issue? Or are there other factors which could explain what we see? It is obvious that differential growth perspectives should translate into differences in credit demand. The same holds true for differences in the underlying uncertainty. And there, of course, Europe is characterized by differing conditions. There is no justification to suppress the manifestations of these differences through policy action. They would have to be addressed structurally.



Moreover, and the Commission's Green Paper does not fall into this trap, it is fiendishly difficult to tell from the evolution of credit to nonfinancial corporate, whether demand (mediocre economic perspectives) or supply (capital-constrained banks) is responsible.

The main point we would like to emphasize in our following comment, however, has to do with unevenly distributed information as well as opacity or uncertainty, some of this only amenable to mitigation to a degree. There is only so much room for improvement in credit intermediation by non-bank banks.

### **III. Form matters, but function ultimately counts**

Institutions as well as markets serve a purpose. Both discharge functions. Whilst financial relationships may assume different forms, ultimately they perform the same functions (Merton and Bodie, 1995). Financial intermediaries – be they banks, insurance companies, mutual funds or pension funds, etc. – bridge the distance, in terms of size, maturity, risk, and liquidity, that exists between savings (and savers), on the one side, and investments of individual households, businesses and governments, on the other side. They offer maturity transformation, size transformation, the allocation of risk among market participants and, most importantly, the information services provided in selecting and monitoring financial contracts.

Ultimately, by force of arbitrage, the lowest-cost supplier should prevail. At least, within limits to arbitrage – all the frictions mentioned above. This is the main proposition of the functional finance approach : financial intermediaries, wherever located on the spectrum between direct and indirect exchange of financial claims, “evolve in response to underlying changes in technology, politics, demographics and cultural norms” (Merton, Bodie 2005). The reference to technologies concerns very substantial advances in information processing (hard- and software). In addition, it involves analytical innovations, analyses of derivatives, in particular. Through replication, contingent claims allow for comparability across different states of nature. Hence, they also support effective integration of markets. Interestingly, country specific rules and idiosyncrasies (rigidities, if one prefers) become irrelevant in the limit. The law of one price asymptotically holds. Products with identical features fetch the same price. Or, as Merton and Bodie write: “(D)erivative security technologies provide efficient means for creating cross-border interfaces without imposing invasive, wide-spread changes within each system” (Merton, Bodie, 2005, p. 3).

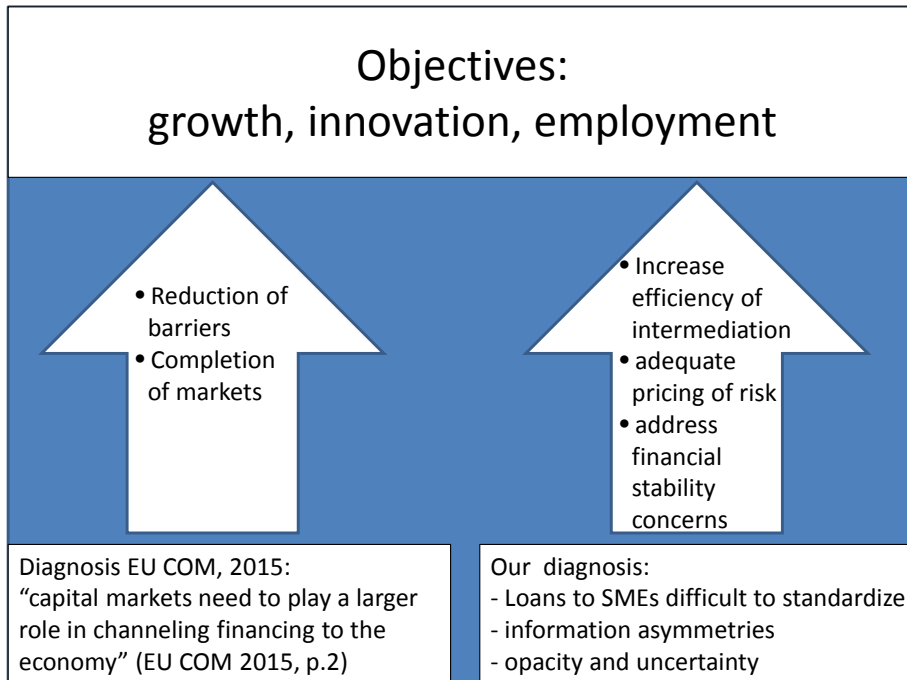
This proposition has a number of major implications. To a degree, institutional rigidities, which often reflect national political preferences (or political-economic compromises),



become irrelevant – provided there is borderless competition (a level playing field). It also entails a slicing-up of financial intermediation value chains (Kotz 2005). This means a lengthening of credit chains – banking taking place beyond the balance sheet of institutions denominated “banks”, but without a public sector (taxpayer) provided backstop for extreme – bad states of the world – liquidity or credit risk (e.g. Adrian/Shin 2009, Beck/Kotz 2015). The lengthening of credit chains results from improved information processing and contracting technologies. But it also becomes attractive in terms of regulatory arbitrage (think of the diverse conduits now largely gone). Most importantly, intermediation chains have been lengthening – obvious at least ex post – as an upshot of the underpricing of liquidity and credit risks.

The functional finance approach highlights that, in order to understand a financial system’s evolution, the changing background conditions of the industry have to be acknowledged. This is obviously about more than legal aspects and regulatory changes. “Historical, cultural [and], economic” factors translate into obstacles. They are not simply “obstacles”, but might be there for a reason. These background conditions also include medium-run macroeconomic perspectives – consider, for example, the ongoing debate about a low interest environment in the face of secular stagnation, a debate on which we do not touch.

What we would like to address, however, is the nature of products dealt with in financial markets and institutions, more precisely their information-impactedness. Here, innovations in the technology of finance are of the essence. First, there are major improvements in the processing and communication of data pertinent to the evaluation of financial claims. Then, already hinted at, with the help of contingent claim analysis, financial products can be dis-assembled, priced as separate components and, subsequently, re-bundled. This allows for de-constructing assets into (modular) subcomponents whose “equilibrium prices...must *already reflect* the value of any kind of linear portfolio manipulation...Since this repackaging offers a sure profit, it cannot exist in equilibrium” (Varian 1997). In reality, marred by frictions, profits through re-assembling apparently do exist – but they have become ever more constrained.



Graph 3: Capital Market Union: Objectives and different diagnosis approaches

The increasing extent of the market, as well as the aforementioned technological innovations, have a substantial impact. They also interact strongly. Banks are forced to reassess their strategic options. According to the functional finance approach, banks are possibly becoming ever more focused. Retail clients’ business, for example, lends itself to a high-volume, low prices approach. And the lending function could be discharged of via securitization or credit-risk transferring, mainly off-balance sheet. This was at least a view gaining in force in the mid 2000s (see Kotz 2005, for a critical perspective).

Given the idiosyncrasies of individual borrowers (their differential information impactedness), think of SMEs, credit evaluation is highly firm-specific. However, so the argument went, at least before the crisis, in securitization markets, this does not hold for the overall management of credit risk. Synthetic products allow for the unbundling of the selection function (origination) from the processing, the servicing and the risk management tasks. Modularization gains in attractiveness. Here is, again, the classical functional finance argument: While the basic institutional purposes do not change, the ways they are performed vary, depending on the respective institutional and historical context.

Continuously quoted credit risk seemed to morph into market risk. Loans, even to opaque companies, appeared to be, if bundled, just another asset class. The financial crisis has, however, shown that credit risk cannot be dissolved completely in liquid markets. There are structural limits to banking beyond banks. Not all assets can be standardized at acceptable costs. Moreover, under stressed market circumstances – in bad states of the world – information compacted assets imply that originators face difficulties in selling less transparent or more opaque cash flow. And, crucially, with origination de-coupled from funding and servicing, monitoring on the side of the originator becomes very much less compelling. Agency issues are of significance.

#### **IV. Non-bank intermediation – a less benign U.S. assessment**

Interestingly, what is deemed to be a solution – an increased importance of non-bank banking – is seen from a substantially more critical angle in the U.S., at least amongst regulators and academics (Stein 2010, Poszar 2014).

In the U.S., the share of non-bank intermediaries, (asset-backed paper, repos, mutual funds and securitization), performing bank-like functions, or parts thereof, has been on a strong upward trajectory for more than two decades. The mispricing of risks has been seen as a decisive reason for excess supply of credit and the boom and bust cycle in availability of funds (Geanakoplos 2010, Gorton 2012).

Therefore, reform efforts are targeted at reigning in securitization and repo funding, especially by appropriately pricing and underwriting private sector funding backstops and collateral requirements.

The Green Paper is clearly aware of these problems. This is clear, in particular, in the call for a “sustainable EU high quality securitization market relying on simple, transparent and standardized securitization instruments” (p. 10). But, of course, this only pushes back the question on how to effectively deal with information asymmetries and heterogeneity, being structural, in a simple, transparent and standardized way. Hence, again, we are back to thinking about the limits of securitization – or ways to promote its effectiveness in risk-sensitive credit intermediation.

## V. CMU from a functional finance perspective

The functional finance approach is a pertinent analytical device to understand and assess the CMU's approach to the integration of Europe's financial markets. It offers in particular three lessons.

**Lesson 1: On a priori grounds, there is no general welfare presumption as to an optimal mix of institutions cum markets in the overall financial architecture; the financial landscape is an endogenous response, inter alia, to the prevailing set of regulatory rules.**

At any point in time, a variety of substitutable financial transactions will be available from competing financial service providers to meet the specific demands of market participants. The observed mix of banks, other financial services firms, and markets is thus a result of the set of existing regulatory rules and prevailing economic background conditions more generally. Regulatory institutions, in turn, are largely the consequence of historical events. They are path-dependent. The functional finance perspective suggests that while institutions are complementing each other at any point in time, they are effectively substitutes over time, driven by competition and regulatory innovation. Changes in the regulatory framework will, in many instances, change the significance and the role of the existing market players (see, for the U.S., Roe, 1994).

**Lesson 2: Regulatory interventions need an economic justification. There must be a market failure (externalities, information asymmetries, imperfect competition or collective action problems) and hence a policy issue.**

More specifically, given a particular balance between financial service firms and markets, (in fact: a rather simple, binary view) regulatory interventions should be based on a viable diagnosis and, in light of the ultimate target, an appropriate justification of suggested tools or instruments. For example, the identification of externalities, or barriers to market access, a lack of competition due to market power, or an exploitation of weak market participants, due to asymmetric information or limited (financial) literacy of consumers could (and should) be the starting point for any regulatory initiative. In contrast, resulting changes at the institutional level have to be accepted. They do not make a valid counter-argument against reforms, unless the costs of institutional change are shown to outweigh the welfare gains (Tröger, 2014; Thiemann and Tröger, 2015).

**Lesson 3: Regulatory change has to be based on a cost-benefit rational. The case has to be made why a particular result can be achieved better by altering the rule set governing financial markets.**

The term „better“ requires quantification along some specified dimension, for example referring to induced changes in total information costs, production economies, diversification and welfare gains. We suggest institutionalizing, as part of the consultation processes surrounding regulatory initiatives at the EU level, the mandatory submission of at least two independent expert opinions on legislative reform proposals. The role of these expert opinions would be to quantify the welfare analysis by use of case-specific, evidence-based research. This would help foster a learned and open debate on the welfare implications of a legislative project.

## **VI. Options for further market completion – a selective list of areas for regulatory intervention as part of the CMU agenda**

Our list of “most wanted” regulatory reform issues relating to the capital markets union focuses on one market imperfection, in particular: information asymmetries and the resulting agency problems. Such agency issues often also arise from uncertainty, mainly from different reading or implementation of rules. A lack of integration – a low-level of cross-border flow of funds or substantial price dispersion – is the logical corollary of uncertainty about claims.

### **1. Towards a sustainable securitization market: resolving retention ambiguity (Related questions: 25 and 26)<sup>2</sup>**

Assuming that there is an effective supply failure as a consequence of weak banks, a functional substitute could be a working securitization market for SME loans. Even more, inasmuch as diversification and risk reduction benefits from asset pools backed by SME loans, could contribute to a stable and resilient access to funds, this would be a policy issue, at least as long as private initiatives cannot deliver. We hold that the EU Commission has a convincing argument here. There is a collective action problem in setting the appropriate standards for a securitization market to work across the entire union. This calls

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<sup>2</sup> The questions listed in the parenthesis refer to related questions posted in the Green Paper (EU COM 2015).

for determining, from an investor's (e.g. insurance company, mutual fund, pension fund or a retail investor) point of view, the obstacles inherent in collateralized securities. They are largely about information issues, as well as the counter-party risks which emanate from credit enhancements.

In other words, it has to be spelled out quantitatively, and in a robust procedural form, what simple, transparent and high-quality securitization could mean practically.

To be more precise: The decisive quality feature of securitizations is their degree of transparency about the amount of losses the issuer of the securitization is going to bear. "Flagging of retention", i.e. producing an easy-to-understand report on the design of first-loss sharing, is hence crucial. It will reduce information asymmetries between issuers and investors and will thus help to achieve a sustainable securitization market. With full transparency about loss bearing structures, the market will be able to price securitizations efficiently, i.e. according to individual default risk.

This gives flexibility to the issuer: she can generate high issue proceeds through limiting the loss risk for the investor, or she can explicitly transfer first loss risk to investors at an appropriate price, if equity retention is not desired for some reason, e.g. because of insufficient capital (Krahen/Wilde 2011). This will, however, come at the expense of discounted expectations: if the originator retains little, the expectation is that there may be risk shifting between debt-holders and shareholders. Furthermore, an important aspect of transparency in the securitization context refers to the ability of investors to "look through" different stages of the securitization process. This enables investors to identify, measure, and evaluate the original risks, their possible dependencies, and the risks stemming from bundling activities. Gründl and Post (2009) make a proposal as to the design of a respective information system.

Asset-backed securities are a pertinent example for dealing with the risk-retention issue: Current regulation requires that bank asset securitizations have to meet defined principles of minimum retention. Further transparency in the direction of "flagging actual retention" would be warranted.

Other securities, like covered bonds and *Pfandbrief* securities, can also be discussed with reference to retention. A *Pfandbrief* security, for example, is a single tranche asset backed security with credit enhancement via the equity capital of the issuer, with zero

retention other than over-collateralization. The equity capital of the issuer serves as the first loss position, functionally a credit enhancement. Provided the Pfandbrief issuer is sufficiently capitalized, *Pfandbriefe* may be even better protected from adverse events than an otherwise comparable ABS transaction with full first loss retention.

Securities markets require transparency about loss retention. This will benefit not only banking-related securitizations, but will also increase attractiveness for trading in insurance-linked securities. In addition, eligibility of underlying assets and standardized disclosure requirements are crucial. An effective boost to this market would, of course, arise, if the ECB would accept such papers for its liquidity provision. From a functional finance perspective, this would be appropriate.

## **2. Harmonization of debt restructuring laws across Europe (Related question: 29)**

Uncertainty arises also, and in particular, from unclear costs of distress. This uncertainty rises in the cross-border dimension. It has an impact on the availability and cost of funds. Obviously, insolvency law, particularly its treatment of collateral and seniority, is a central element of financial contracting. This can have structure-creating consequences. For example, the safe harbor rule granted to repurchase agreements – making repos bankruptcy remote – has been widely seen as pivotal in the rapid growth of repo and derivatives markets in the past 20 years (Gorton & Metrick, 2010; Roe, 2011).

"Good" insolvency laws offer legal certainty for suppliers and consumers of capital – savers, insurance takers, banks, pension funds, insurance companies, as well as investors. Legal certainty decreases financing costs for debtors. In a creditor-friendly regime, as exists or still exists in much of Europe, legal certainty may, in addition, set proper incentives for lenders to support corporate restructuring (Brunner/Krahn 2008).

Currently, member states are largely responsible for their respective insolvency laws. This yields 28 distinct insolvency regimes. It implies uncertainty and differential costs, creating a wedge. CMU's inherent objective, to encourage cross-border investments in financial instruments, could hence be promoted by a comprehensive harmonization of those parts of the law that govern debt restructurings across Europe. Standardization would achieve pan-European legal certainty. Investors could reliably predict their position in a debtor's financial distress, prior to investing and without incurring substantial

costs (for seeking legal advice). Instead of informing themselves about the precise content of the respective national insolvency laws, they could invest in debt securities, issued anywhere in the EU, relying on one European regime for restructuring debt instruments.

For mainly political (therefore not inherently flawed) reasons, attempts at harmonizing insolvency law in the EU have been greeted with substantial resistance. We are aware of the tremendous political-economic and technical challenges that a full-blown harmonization of insolvency law would entail. Therefore we propose a less ambitious approach. We suggest a special European regime for restructuring corporate bonds outside of insolvency proceedings – a 29<sup>th</sup> insolvency regime. Special procedures for debt work-outs do already exist in the law of the Member States (see e.g. the German Schuldverschreibungsgesetz [Debenture Act], §§ 5-22). Yet, the benefits of standardization could only be realized by an EU-wide legislation. The proposed approach tallies with that taken in the BRRD and SRM-Regulation, providing for pre-defined creditor loss-participation outside of formal insolvency proceedings. It would transcend the entity-centered approach taken in banking regulation and thus level the playing field for the competition between bank and market based finance.

The 29<sup>th</sup> regime would be an optional regime, irrevocably chosen at the time of issuance. In order to truly achieve uniformity in the framework for the restructuring of debt instruments, the EU should act by writing a Regulation (TFEU, art. 288(2)). Only directly applicable European law could achieve the essential priority of relevant EU law at the interfaces with domestic insolvency regimes.

### **3. Small and medium-sized companies come in a variety of flavors (Related questions: 2 and 8)**

One has to distinguish between companies operating in mature markets with low growth rates, and start-ups, engaging in highly risky and therefore failure prone activities at the frontier. The vast majority of SMEs are operating in mature markets. Given their financially relevant characteristics, these companies follow a pecking-order in their external funding: internal funds, trade credit, banks – and, in case fixed cost of market debt is not a hurdle, public debt markets (e.g. promissory notes, midcap bonds etc.) The latter are relevant only to significant medium-sized companies.



The second, much smaller group of firms, comprises companies with a potentially high growth trajectory, normally generating negative free cash flows not only in the startup phase but also when expanding the business model, mainly due to high capital expenditures and significant investments in R&D.

Therefore, young innovative high tech companies are usually fully equity financed, *nota bene*: private equity, not public. As soon as they have reached break even and generate positive cash flows debt financing becomes available and is added to the existing equity base.

In order to facilitate access of SMEs to debt financing, both in the banking and debt capital markets, the following measures could be further investigated.

#### **4. Harmonization of financial accounting and reporting standards for SMEs (Related questions: 2 and 8)**

Not only cross border investments in equities but also cross border lending of commercial banks is often hampered by different national accounting standards (GAAP). This creates distance. Informed credit and investment decisions become more difficult and more expensive.

A similar impact could be achieved with a harmonized set of accounting standards for SME. However, the design of such a set of principles should acknowledge the capabilities and resources of smaller companies. Furthermore, this effort should not be limited to companies listed on MTFs because more traditional non-high growth SMEs would particularly benefit from an easier access to cross border bank financing.

#### **5. Financing of start-ups and innovation financing (Related question: 15)**

Due to their negative cash-flow profile, young, high-growth companies usually do not fulfill the minimum requirements for debt financing. Thus, the availability of venture capital is of the essence. There is a broad consensus that we do not have sufficient sources of venture capital in Europe, especially when compared to the U.S.. In order to broaden and deepen the availability of risk capital for corporate innovation, the following measures could be considered in the context of designing the CMU.

Venture capital investments are characterized by a high risk/high return profile. It is therefore pivotal for venture capital firms to ensure a high level of portfolio diversification. The scale of venture capital funds is largely driven by the fund management's track record, which is reflected by the fund's past performance. Apart from the relevant industry know-how and management expertise to support and nurture start-ups, developing exit routes is crucial for any venture capital investor. The trade sale for young high growth companies to larger industrial players is in many cases not the first choice of company founders, as the entrepreneurial spirit is very often the key success factor of innovative endeavors. Hence, high growth companies and their venture capital investors envisage a listing on a public stock exchange through an IPO (Initial Public Offering).

Although the regulatory requirements for such a listing depend significantly on the market segment the company intends to enter, one time and ongoing costs of a stock listing provide a sometimes prohibitive hurdle for companies that are still in an early stage of development. Therefore, it would be beneficial both for companies seeking for additional growth capital, as well as for venture capital investors, if alternative forms of secondary markets for venture capital stakes could be established. One could think of different design options for such „secondary markets for venture capital“:

One option could be the introduction of „Pre-IPO segments“, organized by stock exchanges, but with much lower regulatory requirements even than entry standards that already exist. Another option could be an MTF for such investments that would most likely only be open for professional investors, in order to protect retail investors from investments in intransparent companies that require a deep knowledge of the respective sector.

#### **6. Creating a transparent and liquid market for bail-in instruments (Related questions: 24, 24, 25, 26)**

Functional finance insists on viewing issues from a comparative perspective. Whereas non-financial corporations have to face up to bankruptcy, banks were, for not always convincing reasons, bankruptcy remote. This came with detrimental incentives. Inter alia, this implied an incentive to allocate more funds to failure-safe banks. A consequence of the crisis is that policies have been implemented to deal with this problem. This has immediate consequences for securitization markets and thus the access of SMEs to funds.

One class of debt securities that would greatly benefit from an improved market environment is unsecured bank debt, particularly those instruments falling under the Total Loss Absorption Capacity (TLAC) or Minimum Requirement for Eligible Liabilities (MREL) classifications. Both classifications ideally describe the same set of junior and senior unsecured bank liabilities, many of them will potentially be traded on secondary markets. According to Art. 44 BRRD and Art. 37 SRM-Regulation, bail-in-able (or TLAC) securities are eligible for prompt corrective action taken by the regulator, to avert a looming critical situation for an individual bank, assuming the overall financial stability is at risk.

In order for junior bank debt instruments to serve the purpose of providing loss absorption capacity, and therefore to price default risk properly, a liquid market for these instruments is highly desirable. With such bail-in instruments traded on a deep and liquid market, their prices should, (at least on average), be informative about the risk of individual institutions. This would support market discipline to work more effectively, be it through the primary market (via the coupon of new bond issues), or through the secondary market (via bond spread development). Both markets could be important sources of information for regulators, and some bail-in instruments, coco bonds for example, could have covenants tied to market prices.

Finally, if regulatory action is necessary, it will be implemented in secondary bail-in debt markets. For example, a conversion of debt into equity at some specified rate will imply the transfer of securities from one market place to another, at a suitably diluted price. Before taking action, the regulator will have to assess the possible impact of the envisaged bail-in, and will thus need to know the identity of the investors holding these securities.

The design of a dedicated, high information, and liquid market for bail-in-able securities, possibly including second stage securitized portfolios of these instruments, needs special attention. In planning a market design for bail-in bank debt, the CMU agenda would effectively contribute in a complementary way also to the banking union legislative project by completing its (still unresolved) „market leg“. Pushing the market leg of the banking union project requires a comprehensive plan for establishing a functional market for TLAC securities.

Far from having a blueprint for a TLAC securities market ready at hand, we re-commend investing intellectual energy in its design. It involves the development of suitable products, and the design of an appropriate market microstructure.

### **7. Pension funding schemes: appropriating societal benefits from risk-conscious investing (Related questions: 13, 15, and 17 through 20)**

European economies are producing at the technological frontier. They depend on financiers capable of taking long-term risk. The ratio between market capitalization of bonds vs. equities captures societal risk preferences (or risk aversion). We take this as a given preference. Within these constraints, financial assets could be allocated in a way to enhance the opportunities of value creation. Stocks and bonds are ultimately claims on an economy's capacity to generate sustainable increases in productivity, and hence output growth. Stocks are risky, also over the long run. But they come with potentially higher returns. A well-diversified portfolio should therefore include equity. Also, since, from a macroeconomic angle, this allows for engaging in riskier ventures, promising higher social rewards. Ultimately financial assets cannot deliver more than the non-financial economy is capable of producing. At the same time an economy's capacity to deliver is contingent on its access to risk capital.

Here is an externality of the pension system design and hence a policy issue. Defined benefit systems have been promising too much with respect to delivering high investment guarantees over decades. A sustainable pension funding is, at the same time, contingent on healthy growth. This calls for an equal treatment of equity and debt. A pension system allowing for a larger share of equity investments would be beneficial. The optimal system appears to be a mixed-one, combining pay-as-you-go for the provision of a robust societal minimum and a funded system for additional benefits. The pay-as-you-go component is particularly important, as it allows for time diversification, which individuals simply cannot realize on their own.

Whether there is a net capital formation effect of the chosen pension system, remains a debated topic. However, an increase in the size and depth of securities markets (i.e. both equity and debt markets) is likely to enhance the range of accessible diversification opportunities for investors, while, at the same time, broadening the funding options of firms of all sizes. Furthermore, if collective pension schemes invest in equity stakes of

corporations, there is a chance that a long-term increase of wealth in an economy can be shared more broadly in a society. Given the observed, yet not fully explained equity premium puzzle in international stock markets, there is an additional reason to allow for an increase in the weight of equity instruments in the average investor's pension portfolio.

However, under Basel III and Solvency II, in many cases, investments in sovereign bonds go along with capital requirements, which do not reflect risk in an adequate way. This implicit subsidy entices financial services firms to bias their asset allocation towards sovereign bonds. Yet, the allocation of funds into government bonds reduces the availability of funds for other investment categories that might have a more attractive risk-return trade-off, such as equities, SME-investments, or long-term investments, such as in infrastructure projects via ELTIFs. For the same reason, non risk-adequate capital charges impede the growth and deepening of corporate bond markets, which would be of great importance for the life insurance and occupational pensions sector to match its long-term liabilities.

#### **8. Financial inclusion – making ultimate savers full partners in the CMU project (Related questions: 19 and 20)**

There is not one optimal portfolio for the individual saver. Investors are rather heterogeneous. In particular, their preferences with regard to risk differ substantially. Information problems abound. They refer to the capacity of investors to interpret data and understand institutions. This begins with knowledge about returns to be expected on average – over the long haul of history. It also includes knowledge about risk, in particular shortfall risk (risk of stock does not decrease over time). But they also have to do with limits which behavioral economics has stressed. Here, public policy of a merit-good type – providing information and supporting action by sensible default – is called for (Kotz/Weber 2007).

Financial market participation of households is much lower in most European countries than in the U.S.. There are obvious institutional reasons for this – a well-established pay-as-you-go system. Surveys indicate that European households shun away from organized capital markets, and equity instruments in particular, because they believe that security trading requires expert knowledge, high wealth and the willingness to speculate. Moreover, the available evidence on the performance of household security portfolios indicates that those households that do participate, end up making costly investment mistakes.

Policy measures targeted at increasing retail investment must address these (perceived) entry barriers and ideally, also the prevalence of investment mistakes.

Conventional financial education alone is not a sufficient fix. Fernandes et al. (2014) summarize the extant literature and conclude that the learning effects from financial training programs erode quickly. The authors advocate personalized “just-in-time” financial education measures that allow people to learn from past decisions and that provide relevant information at the very time of decision making. Experiments on such “smart disclosure” measures have produced promising results.

High-quality professional financial advice alone is not a sufficient fix, either. Bhattacharya et al (2012) demonstrate that clients do not reap the full benefits from good advice because of low adherence rates – most likely due to a lack of trust, overconfidence and high perceived implementation costs. Newer forms of financial advice such as flat-fee models and robo-advice appear to successfully address many of these issues.

It follows, that policies for more retail investment in capital markets should promote smart disclosure of investment results and should also foster competition among existing and new forms of financial advisory services. As a matter of fact, standardized smart disclosure of the savings and investment results would also permit financial advisors to better signal the quality of their recommendations. This should, in turn, increase adherence rates to good advice and should accelerate market exit of poor advice.

Ideally, such policies – in conjunction with the ongoing digitalization of retail finance – will spark off new business models that cater especially to households with little financial literacy (Hackethal 2015). Early examples of such models, out in the market, offer an easy-to-implement, low-cost investment process, helping clients to avoid costly investment mistakes and to earn the full risk premia offered by capital markets.

## VII. Summary and further issues

The EU Commission's Green paper suggests a further attempt at completion – integration – of Europe's capital markets. This would come with a greater choice set for users of European financial markets and institutions. It would, potentially, imply a boost to Europe's potential growth. And it should translate into higher employment. These are, evidently, objectives very much at the core of the European project.

Starting from these objectives, which we share, we suggest thinking about ways to achieve these targets, by instruments which address information asymmetries or market imperfections more generally. In addition to the aspects mentioned in the body of our paper, we would propose to further explore how to reduce opaqueness of the available information on SMEs. This might include credit scoring systems, based on appropriate – proportional to SMEs – accounting approaches. This might entail further standardization of disclosure requirements. Given the public goods dimension, one might explore whether a public sector (or a cooperative) entity could engage in information processing. Risk-sensitive pricing of pooled assets is strongly influenced by credit enhancements and collateral as well as procedures in times of distress. Reducing uncertainties in these domains would foster integration. Finally, we have not explored issues of infrastructure – the mechanics or plumbing – which are, of course, consequential for price discovery and risk-sensitive pricing.

## References

- Adrian, T. and H.S. Shin (2009).* "Liquidity and Leverage." FRB of New York Staff Report No. 328.
- Beck, G. and H.–H. Kotz (2015):* Non-bank banking in the euro area: How large, how risky, and how bank-like? (SAFE Policy Center WP, forthcoming)
- Bhattacharya, U., A. Hackethal, S. Kaesler, B. Loos and S. Meyer (2012).* "Is Unbiased Financial Advice to Retail Investors Sufficient? Answers from a Large Field Study." *Review of Financial Studies* 24: 975–1032.
- Brunner, A. and J. Krahenen (2008).* Multiple lenders and corporate distress: Evidence on debt restructuring. *Review of Economic Studies* 75: 415-442.

- EU COM (2015)*. Green Paper: Building a Capital Markets Union. European Commission.
- Fernandes, D., J.G. Lynch and R. G. Netemeyer (2014)*. "Financial Literacy, Financial Education, and Downstream Financial Behaviors." *Management Science* 60(8): 1861–1883.
- Geanakoplos, J. (2010)*, "The Leverage Cycle". Cowles Foundation Paper NO. 1304, available at <http://cowles.econ.yale.edu/>.
- Gorton, G. (2012)*. *Misunderstanding Financial Crises: Why We Don't See Them Coming*. Oxford University Press.
- Gorton, G. and A. Metrick (2010)*. Regulating the Shadow Banking System. *Brookings Papers on Economic Activity* 41:261-312.
- Gründl, H. and T. Post (2009)*. Transparency through Financial Claims with "Fingerprints": A Mechanism for Preventing Financial Crises. *Financial Analysts Journal* 65 (5): 17-23.
- Hackethal, A. (2015)* "Financial Advice", in: Faia, E., A. Hackethal, M. Haliassos and K. Langenbucher (eds.), *Financial Regulation: A Transatlantic Perspective*, Cambridge University Press, forthcoming.
- Kotz, H.-H. (2005)*: Perspectives du secteur bancaire: Déconstruction et reconfiguration, in: *Revue d'Economie Financière*, no. 78, pp. 297-309
- Kotz, H.-H. and M. Weber (2007)*: Increasing Financial Literacy: A Public Policy Challenge, in: *Kredit und Kapital*, vol. 40/no. 2, pp. 175-187
- Krahn, J.P. and C. Wilde (2011)*. CDO and systematic risk: Why bond ratings are inadequate. Working Paper.
- Merton, R. and Z. Bodie (1995)*. A Framework for Analyzing the Financial System. In Crane et al., Eds., *The Global Financial System: A Functional Perspective*. Boston, MA: Harvard Business School Press.
- Merton, R. and Z. Bodie (2005)*. "Design of Financial Systems: Towards a Synthesis of Function and Structure." *Journal of Investment Management* vol. 3, no. 1, 1-23.
- Pozsar, Z. (2014)*. "Shadow Banking: The Money View" (July 2, 2014). Available at SSRN: <http://ssrn.com/abstract=2476415>.
- Roe, M. (1994)*. *Strong Managers, Weak Owners: The Political Roots of American Corporate Finance*. Princeton, NJ: Princeton University Press.
- Roe, M. (2011)*. The Derivatives Market's Payments Priorities as Financial Crisis Accelerator, *Stanford Law Review* 63:539-90.
- Stein, J. (2010)*. "Securitization, Shadow Banking, and Financial Fragility," *Daedalus*, Vol. 139, No. 4.
- Tröger, T. (2014)*. How Special Are They? – Targeting Systemic Risk by Regulating Shadow Banking. SAFE Working Paper #66. Available at <http://ssrn.com/abstract=2505909>.
- Thiemann, M. and T. Tröger (2015)*. Prudential Regulation of Non-Bank Banks. SAFE Working Paper, forthcoming.
- Varian, H. (1997)*. The Arbitrage Principle in Financial Economics, in: *Journal of Economic Perspectives*, vol. 1, no. 2, p. 61.