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Restarting the Credit Engine in Europe

6.1 Introduction

Small and medium-sized enterprises (SMEs) are a major concern for European policy-makers, as the fixed costs required to access the financial markets may be too high for SMEs. Consequentially, their financing relies mainly on bank credit. However, as the unit size of loans to SMEs is usually smaller than average, while screening costs are fixed, banks tend to minimize the cost of collecting and processing information on SMEs (e.g. using scores instead of ratings) (IIF-B&C 2013). On their part, SMEs are less transparent; their financial statements are less informative and are often unaudited. In some countries, this is also for tax purposes. This translates into greater informational asymmetries and higher transaction costs for potential investors. These are discrepancies that could be mitigated by long-term customer relationships. In presence of imperfect information and adverse selection, banks tend to act as demonstrated by Stiglitz-Weiss (1981), allowing credit rationing to SMEs. As a consequence of becoming more risk averse (as was the case after the financial crisis), banks tend to increase credit rationing to SMEs. Firms faced by credit constraints are more likely to exit the market, lower their

employment, spend less on technology, invest less in new capital and in marketing, and, on the whole, are less likely to enter export or import markets.¹ Long-term investment is also an important policy issue. There are major challenges to higher allocations to such assets. Infrastructure investments frequently involve very high up-front costs. The risks associated with them are often specific to the project. Examining these project-specific risks requires dedicated resources that can take years to build, and which many smaller institutional investors (such as many pension funds and insurers, in particular) lack. Furthermore, the scarcity of high-quality data on infrastructure makes it difficult to assess the risk in these investments and to understand correlations with other assets. Technological and environmental risks may be very difficult to quantify. In addition, regulatory barriers in some countries prevent institutional investors from investing in these assets (Kaminker-Steward-Upton 2012; OECD 2013).

These challenges may have recently increased. Banks are now less willing to issue the kind of long-term loans required for the build phase of larger projects (AFME-Oliver Wyman 2013). The bank business model has become increasingly dominated by non-lending activities. Coupled with increasing fiscal constraints on government spending, this is causing a growing mismatch between the amount and time horizon of available capital and the demand for long-term finance. New banking regulation also negatively affects the supply of long-term financing by banks and by institutional investors such as pension funds and insurance companies.

Several public and private-led initiatives have been taken to revive credit to SMEs and infrastructure in Europe since the peak of the crisis. Many actors (described in Sect. 6.2) have taken initiatives (reviewed in Sect. 6.3) to re-issue credit to enterprises and with regard to long-term finance in general. This chapter will review these initiatives, focusing on their different scopes, and identify their pros and cons. Subsequently, based on the preceding critical review, we will examine what different players could (but also should not) do to revitalize credit, exposing innovative proposals. We will not, however, consider initiatives and proposals related to

¹ See the literature quoted in Holton et al. (2013) and Wehinger (2014).

taxation, accounting standards or financial prudential regulation, or proposals that are just suggestions or recommendations to the private sector.

6.2 The Actors

6.2.1 Promotional Institutions

Government intervention in credit can be direct (providing funds through debt, equity, or hybrid instruments) or indirect (improving the availability of credit information, providing explicit guarantees, or facilitating methodologies for financial statement analysis). These products and services may be provided through different channels and by different institutions.

Public policy mandate defines what can be considered as promotional institutions (PIs). This mandate can vary in scope from general missions (such as banking groups that target SMEs, or firms located in certain regions as part of their general activities) to general-interest missions (these comprise financial institutions targeting certain areas or sectors with a social value but are not necessarily profitable). Promotional institutions may play an important role during financial crises, as their propensity to risk is more stable. In PIs, the government is the implicit guarantor of funds (Robano 2014)

The oldest, and probably largest, government promotional institution to support SMEs is the German KfW Group. The KfW Group, founded in 1948, is active in different financing fields (e.g. promotion of SMEs, housing, municipal infrastructure, environmental protection, international project and export finance, developing countries), but the focus is on the support of German SMEs through the business sector KfW *Mittelstandsbank*. The subsidiary KfW-IPEX Bank provides project and export finance (Denzer-Speck & Lob 2013).

Spanish public support for SMEs is developed mostly through two public institutions: the *Instituto de Credito Oficial* (ICO), a state-owned bank; and the *Empresa Nacional de Inovation* (ENSIA), a public company attached to the Ministry of Industry, Energy and Tourism.

In Italy, the biggest role is played by the joint-stock company under public control: *Cassa Depositi e Prestiti*.

Furthermore, governments may offset possible financial market failures either by providing export financing directly, or by insuring against certain risks through a PI commonly known as an export credit agency (ECA). In addition, an ECA can offset market failures through auxiliary actions such as gathering and sharing information on risks, and by providing relevant assistance to exporters. An example of an entirely state-owned ECA is UK Export Finance.

As for the role played by PIs in the infrastructure industry, Canadian and Australian infrastructure financing models are widely recognized as using the best practices in government support to infrastructure investments. Through Infrastructure Canada and Infrastructure Australia, the respective federal governments have significantly bolstered infrastructure spending. Infrastructure Canada has set up the Infrastructure Stimulus Fund, the Building Capital Fund and the Green Infrastructure Fund (Bassanini and Reviglio 2014).

Since the global financial crisis of 2008/2009, PIs have become increasingly important in financial markets, addressing short-term financing gaps and mitigating cyclical fluctuations in lending activities of private banks. Following the sharp reduction in business lending activities, new functions have been attributed to PIs; also, a broader set of areas and players has been targeted, posing new challenges to PIs.

In December 2012, the French government created the *Banque Public d'Investissement* (BPIFrance), which has been operative since February 2013 in a similar role to that of KfW. BPIFrance incorporated the major public institutions involved in financing and supporting French SMEs (including the *Caisse des Dépôts et Consignations*, the *Fondateur Stratégique d'Investissement*). Portugal has set up its PI (Istituição Financeira de Desenvolvimento) in 2014.

6.2.2 Central Banks

When interest rates reach very low levels, as is currently the case, traditional monetary policy becomes limited. For this reason, central banks must look to non-standard measures in order to further ease monetary conditions. Either these policies can affect the overall monetary stance in the economy (a general easing), or they can be more targeted toward

sectors that are most acutely affected. Alternatively, they can perform a combination of both.

Collateral requirements to access central bank lending facilities can be changed in order to favor lending to particular sectors. Options include reducing the minimum rating requirements and the restrictions imposed on certain types of assets (for instance, on SME loans or Asset Backed Securities: ABSs), or on pools of assets. If a central bank makes the conditions on usage of a certain asset (for instance, loans to SMEs) more favorable, it encourages bank lending to this sector. Changes to the collateral framework can clearly be effective in easing financing constraints to banks and access to finance to sectors of the economy, such as SMEs. However, changes in relation to pools of assets can be complex and could increase risks for the Eurosystem.

Central banks around the world have also implemented purchase programs or non-recourse repurchase (repo) programs for ABSs and other credit related securities. By purchasing ABSs in secondary markets, central banks could improve investor confidence through a portfolio balance effect, increased liquidity, or simply through signaling support for this asset class. This could have the effect of narrowing spreads and fostering activity in the primary issuance market. The Federal Reserve System (Fed) (USA) undertook such asset purchases to reduce long-term interest rates and improve financial conditions. For example, the Fed bought mortgage-backed securities in order to attempt to increase the availability of credit for house purchase. Another version of this type of policy involves non-recourse loans (repo agreements) given to investors through eligible counterparties using ABSs as collateral with a haircut, similar to the Fed's Term Asset-Backed Securities Loan Facility (TALF). This means that borrowers could leave the underlying security with the Fed, rather than repay the loan, should the value of the security fall below the amount of money owed. This arrangement leaves the investor with potential upside gains, while removing the chance of extreme losses.

6.2.3 European Institutions

The European Investment Bank (EIB) provides finance and expertise to promote investment activity that will increase growth and employment in

the EU, with a special focus on SMEs, resource efficiency, infrastructure, innovation and skills. The European Investment Fund (EIF), which is part of the EIB Group, focuses on venture capital, guarantees and micro-finance. In 2012, the EIB capital was increased by €10 billion, which allowed for an extra €60 billion in lending between 2013 and 2015. This measure was expected to unlock €180 billion in additional investments. The EIB supports SME financing primarily through financial institutions that on-lend to SMEs and other counterparties, either directly or through guarantees.

The European Investment Fund (EIF) manages the Program for Competitiveness of Enterprises and SMEs (COSME) of the European Commission. In the period 2014–2020, COSME will boost support for SMEs through a loan facility, as well as equity facility and finance for research and development.

As an example of the cooperation between the EIB and promotional institutions, in September 2013 the EIB and BPIfrance signed an agreement according to which the EIB group has made available a €200 million guarantee under the EIF Risk Sharing Instrument, co-financed by the European Commission, to support loans to innovative firms.

6.2.4 Public-Private Partnership

Public support is often essential to overcome market failures. However, government support should be designed to ensure and avoid excessive transfer of risk from the private to the public sector. As a general principle, all additional parties involved (SMEs, banks, guarantee schemes) should retain a sufficient share of the risk and responsibility to ensure proper functioning of the system. In addition, where market failure is a coordination failure, or where the solution is potentially profitable, the public may act as a catalyst for private initiatives.

Governments are increasingly turning to public-private partnerships (PPPs) for investments in public infrastructures. The largest share of such investment to date has been in transport.

There are two main types of PPP: remunerated by tolls levied by the private partner or remunerated by the availability of payments from the

contracting agency.² Both types of PPP create liabilities for the taxpayer that need to be contained by transparent public accounting rules and budget procedures that identify them as on-balance sheet commitments. Tolted facilities tend to require larger equity investment, at higher costs. Availability payment-based PPP projects represent a lower risk for investors and attract bank loans with accompanying insurance and hedging instruments. Many availability payment-based projects involve only “pinpoint equity”; that is, a very small equity holding, sometimes less than 1 % of project finance.

Regulated utility-based models for investment attract a larger range of investors. They are a more familiar class of assets, with returns determined in relation to investment by a regulatory formula. An independent regulator is required in this model to arbitrate between the interests of investors, government and the users of the infrastructure. The regulator sets quality standards and user charges; these are subject to periodic review, which provides a useful degree of flexibility in the context of long-term concessions (OECD 2013).

However, there are few “investment grade” projects in the pipeline; these are projects that are not only bankable, but also adapted to more prudent categories of investor. The complexity of the construction and financing of major projects, especially in sectors with high regulatory or macroeconomic risk, requires agreement with various entities working together.

6.2.5 Initiatives by Aim

This section reviews the main initiatives (mainly public, but also private-led) in place or recently announced to restart credit both at the EU and at the national levels. Regarding the latter, the focus is on the largest countries (France, Germany, Italy, Spain, the United Kingdom), but also addresses relevant initiatives in other countries (Austria, Ireland, Latvia, Portugal, Romania, The Netherlands).³

² An availability payment is a payment for performance made irrespective of demand.

³ See Infelise (2014), for a review of policies in the four major EU countries. Best practices are reviewed in IIF-B&C (2013). For an extensive review of policies to support credit to SMEs in

It is important to consider a number of issues when assessing policies in this area. For instance, does the introduction of policy support lending; that is, lending that would not have occurred in the absence of the policy? The policy must not distort the credit allocation mechanism by diverting funds to borrowers who do not have viable investment propositions. Similarly, policies must have structures in place to ensure that the lending decisions made are free of political or bureaucratic influence that would lead to sub-optimal credit allocation. Finally, there must be transparent and rigorous ex-post analysis of policy to ensure the effective use of taxpayers' money (Holton et al. 2013).

6.2.6 Reducing the Cost of Bank Funding

The leading intermediaries in most European countries are banks. In the years leading up to the crisis, European banks had relatively high loan-to-deposit ratios in international comparison and they relied heavily on credit from other sectors to fund their lending – namely, the rest of the world and insurance, mainly achieved through the securitization market and maturity transformation (i.e. borrowing short and lending long). As confidence vanished during the sub-prime crisis, the interbank market and the securitization markets dried-up, increasing the cost of bank funding (EC 2013a,b). With the sovereign debt crisis and the risk of redenomination, bank funding pressures have increased again, particularly for banks heavily invested in certain sovereigns. Private-sector borrowing costs have started to diverge substantially according to geographic location.

6.2.6.1 National Initiatives

Funding for Lending (FLS) was a joint flagship program from the Bank of England and HM Treasury. The scheme was initiated in August 2012 and renewed until January 2015, and was aimed at boosting the lending

Ireland, see Holton et al. (2013). Major initiatives at the EU level are reviewed in Giovannini and Moran (2013).

of commercial banks to households and SMEs. The idea was to allow banks to borrow at a preferential rate from the Bank of England (collateral swap) on the condition that they increased their net lending positions to non-financial corporations. In practice, FLS allowed banks to borrow UK Treasury bills (which could be used to back cheap borrowing on financial markets) at the off-market rate of 0.25 %. Banks were allowed to borrow up to 5 % of their actual lending exposure and, subsequently, up to the total amount of new lending to SMEs. If this preferential borrowing did not lead to an increase in the bank's net lending, the rate at which Treasury Bills needed to be repaid was raised to 1.5 % (Churm et al. 2012; Infelise 2014).

In the UK, there is also a National Loan Guarantee Scheme, launched by HM Treasury in March 2012, with the objective of lowering interest rates on loans by providing national guarantees on banks' unsecured borrowing (Infelise 2014).

While these funding programs can be very effective in alleviating credit constraints, particularly when banks have liquidity problems, the effectiveness of such programs can be difficult to assess and communicate. It is arduous to estimate what the likely evolution of credit conditions would have been in the absence of the scheme (the "counterfactual"). Targeted programs may prove complex in their set-up.

6.2.6.2 Europe-Wide Initiatives

The European Central Bank

Untargeted central bank refinancing operations (fixed or flexible rates) aim to alleviate bank funding pressure, as central banks are capable of supplying essentially unlimited liquidity to banks against eligible collateral, in a manner similar to that of the ECB with its fixed rate full allotment policy. Central banks can also increase the maturity of their operations to reduce bank uncertainty, as the ECB did with its Longer-Term Refinancing Operations of up to one year (introduced in the second half of 2009) and three years (introduced at the end of 2011).

Central banks can change the collateral requirements for their operations to alleviate bank funding stress and reduce financing obstacles. The ECB has made a number of such adjustments; for example, by reducing the rating threshold for certain ABSs and by allowing national central banks (NCBs) to accept additional “credit claims” (i.e. bank loans) as collateral. In July 2013, it reduced the rating requirements and haircuts on certain ABSs in the collateral framework to ease financing conditions further.

In June 2014, the ECB launched Targeted Long-Term Refinancing Operations (TLTROs), which aimed to lower the funding cost of credit to non-financial private enterprises. The initial allowance of up to 7 % of outstanding loans to the non-financial private sector (excluding mortgages) can be increased in the next two years up to three times the net lending in excess of a specified benchmark. The interest rate will be fixed at the rate of the main refinancing operations prevailing at the time of take up plus a spread of 10 basis points. If net lending is below the benchmark, the borrowings will have been repaid in September 2016.

In June 2014, the ECB announced a plan aimed at Outright Purchase of covered bonds (which started in October 2014) and of simple and transparent ABSs.

Prime Collateralized Securities (PCS)

Before the crisis, European banks had a large and increasing funding gap; that is, the difference between deposits and loans. Between 2000 and 2007 in the Euro area, the bank funding gap rose from €830 billion to €1,540 billion; that is, 18 % of deposits in 2007. ABS issuance – including Residential Mortgage Backed Securities (RMBSs), Commercial Mortgage Backed Securities (CMBSs) and Collateralised Debt Obligations (CDOs) – filled about 77 % of the increase in the funding gap over the same period.

Due to different structural peculiarities (i.e. diversified providers of collateral management services and no quasi-monopolistic recourse to a tri-party system owned by systemic important financial institutions,

minor recourse to sub-prime assets used as collateral, large adoption of international standard legal contracts), the collateralized funding market in Europe has proven to be more resilient and not a source of systemic risk. The downgrade ratio and the default rate of European ABSs during the sub-prime crisis were significantly lower than that of US ABSs, with the exception of CMBSs.

During the crisis, the European securitization market also closed down and new ABSs were mainly retained in bank balance sheets to be used as eligible collateral at the European Central Bank or the Bank of England.

After the crisis, the relevant financial regulation was adjusted:

1. Credit Rating Agency (CRA) conflict of interest has been addressed by oversight (EU Directive, Dodd-Frank Act);
2. Incentive misalignment has been addressed by the introduction of an obligation for sponsors of ABSs to retain at least 5 % of the credit risk of the assets underlying the securities ("skin in the game");
3. Transparency is being addressed by the Global Joint-Initiative of issuers associations and by the loan-by-loan initiative lead by central banks (see Sect. 2.4).
4. Interconnectedness has been addressed by Basel 3 (particularly by the revision of counterparty risk).

Banks will need this product to refinance away from central bank funding and potentially to manage capital. In order to facilitate economic growth, a reconnection between capital markets and financial institution asset portfolios is essential. Other secured and unsecured bank debt products are insufficient; neither are they the answer in all cases. The need to restart the securitization market has been posited since 2009.⁴

⁴ Given the pivotal role of securitization as an alternative and flexible funding channel, failure to restart securitization would come at the cost of prolonging funding pressures on banks and a diminution of credit. (IMF 2009) Securitization helped cause a crisis that killed it. A proper reincarnation should help the recovery. (FT 15 September 2010)

To revitalize the securitization market in Europe, three things are necessary:

1. Restoration of investors' confidence;
2. Regeneration of market liquidity overcoming the coordination failure that was freezing the market: "No investors without liquidity, no liquidity without investors";
3. The tightening of spreads to make issuance economically viable.

The PCS is a new, standardized, high-quality and highly transparent investment class. It is based on a market convention between representatives of issuers, investors and arrangers that provides standards on quality, transparency and structure. The EIB Group, European Central Bank and Bank of England participated as "observers" in the PCS initiative. As the issuer can credibly certify the quality of the asset it is selling and as private information is less relevant because the loans are less opaque or more standardized, spreads are expected to be lower. The market is organized and relies on a light structure (the PCS Secretariat), which will also be engaged to improve, over time, the conditions and organizational market features of a liquid secondary market.

The PCS initiative was publicly announced in June 2012 and formally launched in November of the same year with the announcement of the appointment of the PCS Board, chaired by the former head of Market Operations at the European Central Bank, Francesco Papadia. The first PCS labeled issuance followed a few weeks later (<http://pcsmarket.org/>).

The PCS includes four categories of assets: residential mortgages, auto loans, SME loans and consumer credit. PCS eligible SME loans are loans or leases advanced by an originator to an obligor that is a small or medium-sized enterprise for general business purposes, where the originator has full recourse to the obligor. As factoring type of instruments are not yet sufficiently standardized across countries, they were not included in the PCS eligibility criteria.

In addition to the general eligibility criteria, which are applicable to all asset classes, each PCS Eligible Issuance, where the underlying assets are European SME Loans, must comply with additional criteria that were

defined in close consultation with the European Investment Bank Group (EIB and European Investment Fund):

1. The number of Obligor Groups is not less than 500;
2. The aggregate outstanding principal balance of the Underlying Assets due from any single Obligor Group does not exceed 0.75 per cent of the asset pool;
3. The originator of the Underlying Assets has provided a representation and warranty that the Underlying Assets in the asset pool are not of a lower credit quality (including tenor) than comparable assets retained by the originator (including previous securitizations) and (ii) None of the Underlying Assets are loans in arrears, non-performing loans or restructured loans;
4. Each Obligor Group has made at least one scheduled payment under each relevant Underlying Asset Agreement or (ii) there has been a lending relationship between the originator and each Obligor Group for at least 12 months; and
5. The number of Underlying Assets in the asset pool, which have no scheduled principal payments due in the next 5 years, is not greater than 25 per cent of the asset pool.

The securitization of SME loans indirectly creates a secondary market combined with funding for the originator. Investors buy a tranche (or several tranches) of the notes and, often, they intend to hold the notes until maturity, while the junior tranche is retained in full or in part by the originator.

The securities backed by SME loans (SMELBS) are traditionally a small fraction of the securitization market, which is dominated by RMBSs – less than 15 % of the European securitization volume over recent years. SME loans are, in principle, less homogenous than residential mortgages (with regard to size, legal forms, collateral, etc.). Most SME securitization has traditionally originated from a few countries, such as Spain, Germany, Italy (especially leasing), Benelux, Portugal and the United Kingdom.

The EIF typically provides guarantees on junior and mezzanine triple A tranches, but can also act as guarantor for senior tranches of SMELBSs for funding-driven transactions (Kraemer-Eis et al. 2010).

The only PCS labelled SMELBS (€600 million) so far has been originated by GEFA (*Gesellschaft für Absatzfinanzierung mbH*), the leasing German subsidiary of *Societe Generale*.

6.2.7 Sharing Risk and Lowering Interest Rates

6.2.7.1 Direct Lending

Government can provide funding to the SMEs either by means of the direct provision of funds through a state bank, or through the provision of funds that are leveraged by private sector investors. Both forms of intervention are common across developed countries. Government provision of SME financing can act as a counter-cyclical substitute for bank financing in times of financial distress. Furthermore, government involvement allows policy-makers the opportunity to set strategic objectives and to target segments of the economy that are the most likely to be disproportionately affected by a tightening of bank lending. This can include sectorial targeting; for example, for the purposes of infrastructure, or to high-potential sectors of the economy with which banks are unfamiliar or where tangible collateral is less readily available.

The most pertinent risk associated with direct government funding for SMEs relates to the misallocation of capital, deriving from either political interference or the lack of a profit motive to incentivize those making capital allocation decisions. Numerous academic studies have shown that higher state involvement in the banking sector is associated with weaker financial development, higher default rates, lower interest rates for firms in areas with stronger political patronage and a higher probability of incidence of a banking crisis (Holton et al. 2013).

With the risks highlighted above, it is often judged preferable to follow the public-private model, where private firms, who then take full control of credit allocation decisions on a commercial basis, leverage government funds.

For example, in the KfW Entrepreneur Loan program, applications are submitted to KfW by a commercial bank, which can be freely chosen by the applicant. KfW finances up to 100 % of the total investment.

KfW does not require any specific collateral, which, in turn, has to be negotiated by commercial banks. KfW Entrepreneur Loan targets established enterprises (those with an annual turnover of up to €500 million with more than three years in business), providing them with loans at favorable interest rates of up to €25 million for medium- and long-term investment projects. Loans can be used for a broad set of activities, such as the acquisition of land, properties and buildings; construction costs; acquisition of machinery; external services or patents.

KfW Entrepreneur Loan – Subordinated Capital aims at improving the capital structure of SMEs older than three years by providing loans up to €4 million in a two-tranche formula: a debt capital tranche of 50 % and a subordinated debt tranche of 50 %. Loan applications need to be submitted by a commercial bank. KfW can finance up to 100 % of the total investment. The debt capital tranche has to be secured by posting collateral, while the subordinated tranche does not; the latter will not represent a liability for the commercial bank.

The KfW ERP Innovation Programs I and II support firms in meeting their long-term financing needs for investments in market-oriented research, research and development for new products, process and services (Program I) and for the introduction of new products in the market (Program II). Program I provides loans of up to €5 million to firms that are at least two years old and that have a turnover of less than €500 million; Program II provides loans of up to €1 million at favourable interest rates to SMEs that are at least two years old. The procedure and the package is the same as in the Entrepreneur Loan – Subordinated Capital, although the two tranches may vary between 50 % and 60 %.

6.2.7.2 Guarantee Schemes

In many countries, credit guarantee schemes (CGSs) represent a key policy tool that supports credit to SMEs and to infrastructure projects. Well-structured CGSs spread some of the risk and thereby enable banks to extend loans to firms that would find it difficult to access credit otherwise. Relative to GDP, the highest volume of guarantees is currently provided in Italy (2.3 %), followed by Portugal (1.8 %), Hungary (1.4 %) and Romania (1.3 %) (EIB 2014).

The actual costs of a well-designed CGS may be lower than the social costs (loss of output, rise in SME bankruptcy, increased unemployment) of not proving this kind of support. Some loans supported by guarantees displace loans that banks would have provided even without guarantee. However, CGSs free up capital (the risk weight of the guaranteed portion is zero) and thus enhance banks' total lending capacity (Infelise 2014).

Depending on the ownership structure and role of shareholders in the management of the schemes, CGSs can be classified into three main typologies: public guarantee schemes, public-private guarantee schemes, and private schemes.

6.2.7.3 Public Guarantee Schemes

Public guarantee schemes are generally managed by government-related agencies, but guarantee services may also be provided in a de-centralized manner, through the financial system, with little intervention on how the guarantee scheme is run. In other cases, the public guarantee services are delivered through legal entities started on public initiatives and with majority participation of public entities. The government can play a direct role in the guarantee schemes by providing financial support, participating in their management, or, indirectly, by granting counter-guarantees whereby the government takes over the risk from the guarantor up to a predefined share of the guarantee.

Public CGSs are preferable to direct government lending schemes as, given that funds continue to be channeled through the banking system, appropriate credit quality assessments on prospective borrowers are more likely to be carried out. To achieve this, the risk coverage offered by the government on defaulted loans must be sufficiently low that banks have the necessary "skin in the game" to be incentivised to assess credit risk appropriately. A further possible advantage of CGSs lies in the re-direction of credit allocation. Banks are likely to favor borrowers with tangible collateral and this could arguably lead to misallocation away from intangible-intensive sectors such as information technology, business services and other production involving research and development. By shifting

the incentives of banks to lending to such sectors, a CGS can increase a bank's experience and expertise in lending to these sectors and, therefore, have a potentially positive long-run effect. However, the additional of public guaranteed SME lending may be difficult to identify. It is possible that such a scheme will exist merely to allow banks to reduce their exposure to default risk on loans that would have been made without the scheme, while charging borrowers an unnecessary premium.

The design of CGSs is crucial for their effectiveness and sustainability. Targeted enterprises, coverage ratio, credit risk management and fee structure should ensure additionality. A major challenge for the additionality of CGSs comes from selection mechanisms. As financial conditions of guaranteed credits are generally more favorable than ordinary loan contracts, the scheme may attract borrowers with solid creditworthiness that may be able to obtain funds without the support of a guarantee. At the other extreme, loan guarantees may attract firms that seek finance for highly risky projects (adverse selection). In an attempt to maximize additionality, some schemes (e.g. the UK Enterprise Finance Guarantee and the Irish SME Credit Guarantee Scheme) restrict eligibility to those firms that have been denied credit on the loan markets. In some cases, additionality is sought by narrowly defining the target of the program, which may be a sector or specific categories of firms for which severe market failures were identified (OECD 2012).

According to the IIF (2013), Portugal's guarantee schemes are highly effective in providing credit to SMEs. The Portuguese schemes focus on export or investment credit, providing mutual government guarantees for bank loans. The high uptake is related to the advantageous credit terms for SMEs, including extended repayment and grace periods; reduced costs of borrowing for SMEs; easy access to the guarantee lines, directly through the banks; and a high level of SME awareness. Conversely, up-front fees and long lending terms were the main barriers to uptake in the Netherlands.

Public guarantees are also used to support credit to infrastructure projects. The UK Guarantee Scheme for Infrastructure Projects, launched by HM Treasury in July 2012, assigns the UK sovereign rating to infrastructure project guaranteed debt instruments (Giovannini and Moran 2013).

6.2.7.4 Mixed Schemes

Privately funded schemes and public-private schemes are characterized by the direct participation of the private sector, SME organizations and banks in the funding and management of the schemes. An interesting model of a private or mixed scheme is that of mutual guarantee schemes (MGSs). MGSs are private societies created by borrowers to improve their access to finance. Governments may provide financial support to MGSs, mainly in the form of counter-guarantees. These enhance the guaranteed credit volume that can be made available to SMEs, as well as the credibility and reputation of the scheme.

MGSs are characterized by strong ties with the local communities and territorial system and, often, members operate in a specific sector or value chain. This provides a specific information advantage to the schemes: they evaluate their members, assess their creditworthiness, express recommendations to lending institutions and are involved in the recovery of losses should the borrower default. Therefore, MGSs act as signaling device for large banks, which have greater difficulty accessing information on SMEs. However, MGSs may also provide incentives for moral hazard behaviors, as the collateral is external to the firm. However, the peer review process may act as a powerful mechanism for controlling risk and limiting opportunistic behavior. Members have strong incentives to monitor their peers closely, which may prevent borrowers from excessively risky behavior and increase the probability of the repayment of the loan. Local and central governments may participate in the capital of MGSs or top up the guarantee: in these cases, incentives for moral hazard behaviors are higher. A multi-layered guarantee structure exists in Italy (*Confidi*) and Spain (*Sociedades de Garantía Reciproca*). The Italian system is very fragmented; however, a concentration process is ongoing, particularly in the north-east (Mistrulli and Vacca 2011).

Evidence shows that GCSs have been effective in mobilizing a large amount of credit and in easing access to finance for a large number of enterprises (ADB-OECD 2013; Öztürk et al. 2014). Most countries have expanded credit guarantees to SMEs to induce banks to re-open their credit facilities, thereby reducing the additional risk that banks need

to take on their balance sheet when granting new loans. The amount of funds was increased substantially and eligibility constraints were eased, a higher percentage of each loan was guaranteed, and applications were processed more rapidly (ECB 2014). In most cases, government guarantees provided to SMEs increased dramatically during the crisis. In some countries (e.g. France), as crisis measures were phased out and new programs introduced to foster growth and job creation, some guarantee instruments were tailored to specific categories of SMEs, such as start-ups or innovative firms. In other cases, guarantee schemes were introduced to support equity investments, addressing, among other things, the need for de-leveraging firms and supporting them in key transitions, such as expansion or ownership transmission.

MGSs have also been successful in providing support for lending to SMEs; however, their credit quality has deteriorated rapidly: in Italy, for example, the default rate for enterprises with mutual guarantees has been twice the default rate of other enterprises (Mistrulli and Vacca 2011). Nonetheless, the higher recovery rate for mutual guaranteed loans has maintained the Loss Given Default (LGD) at a lower level than that for non-guaranteed loans, keeping interest rates on guaranteed loans lower than those on non-guaranteed ones (in Italy, between 20 and 30 basis points).

The counter-cyclical expansion of MGSs has brought about an important change in scale and exposure to risk. This change is taking place with the ongoing transformation induced by Basel III. This has increased the need to upgrade the organizational efficiency and skill level of these schemes. The response to these challenges has been a change in scale with mergers and consolidation. This can help reduce the relative cost of service, as well as broaden the offer of guarantee instruments. At the same time, a trade-off may emerge between efficient scale and proximity to borrowers, which has been, so far, the competitive advantage of MGSs. This trade-off may be addressed by setting up a chain scheme that includes a local layer close to the firms, a regional or inter-sector layer that provides mainly counter-guarantees and a national and/or European counter-guarantee fund.

6.2.7.5 Europe-Wide Initiatives

The European Commission and the EIB work together on blended risk-sharing instruments, leveraging the EU budget with the EIB lending capacity to finance further special activities in EU priority areas. In November 2012, the Commission and the EIB launched the Project Bond initiative to support capital markets in financing long-term infrastructure investments (EC-EIB 2013).

6.2.7.6 Credit Insurance

Three European institutions dominate the private credit insurance landscape: Euler Hermes, Coface and Atradius. The firms provide insurance on accounts receivable, allowing SMEs to manage risk associated with the financial default of their customers, both in the domestic market and abroad. Each has a detailed proprietary risk analysis by country, activity sector and company. Barriers to higher uptake are low awareness and the relatively high cost of insurance. Regulatory risk weighting for prudential capital requirements of these private guarantees is significantly less favorable than for public guarantees (IIF 2013).

6.2.7.7 Favouring Non-bank Financing

European non-financial companies finance their investment largely through bank loans. During the crisis, many banks started to de-risk their business in order to adjust to pressure in their funding through deleveraging their balance sheets (by increasing equity capital and/or disposing of assets), as well as changes in funding structure. This process has been reinforced by changes in regulation (higher capital requirements, introduction of liquidity requirements) and may last for several years, with the consequence that credit may become less available and more costly. Therefore, since the onset of the crisis, non-financial companies have relied more on market-based funding, including different financial instruments (such as equity, debt securities, inter-company loans and

trade credit). However, although EU corporate bond markets have developed in recent years, non-financial corporate bonds still account for only 15 % of non-financial corporate debt, compared with almost 50 % in the USA. Unless corporate – and, especially, SMEs – have access to alternative sources of finance, any decline in bank lending is likely to have an adverse impact on corporates' ability to finance investment (EC 2013a, b).

Insurance companies and pension and mutual funds are the biggest institutional investors in Europe. The investment strategies of insurers and pension funds are driven primarily by the characteristics of their liabilities in bonds, which provide stable and long-dated cash flows. However, for several reasons (increasing competition among insurers, agency problems for pension funds, performance evaluation, recency bias) institutional investors are increasingly affected by short-termism (OECD 2011). The largest share of their activities is invested in corporate bonds.

As banks are less able to meet the long-term funding needs of borrowers, there is an opportunity for insurers and pension funds, because they tend to have long-dated liabilities that match the part of the credit market from which banks are retreating. Infrastructure investments are attractive to institutional investors as they can assist with liability-driven investments and provide duration hedging. Infrastructure projects are long-term investments that could match the long duration of pensions and insurance liabilities.

Institutional investors have traditionally invested in infrastructure through listed companies and fixed income instruments. Although growing rapidly, institutional investment in infrastructure is still limited (OECD 2013). To encourage institutional investors to invest in infrastructure projects, it is necessary that they are standardized and collected in dedicated portfolios (Bassanini and Reviglio 2014).

Long-term investors (principals) often invest via “agents” such as fund managers. Agents usually have better information and different objectives than their principals. The net result may be that agents misprice securities and extract rents. Large investors and authorities could address these problems requiring agents to adopt a long-term investment approach based on long-term dividend flows, rather than on short-term price movements (EC 2013a, b).

6.2.7.8 Equity Finance

Equity can be a better financing instrument for long-term, high-risk investments, as well as for investments with significant information asymmetries and moral hazard. However, since the crisis, macroeconomic uncertainty and the low interest rates may have affected companies' demand and risk appetite for long-term equity capital.

Current tax laws in most countries favour debt over equity. A welcome exception is Italy's recent Allowance for Corporate Equity (ACE), which aims to enhance the capital structure of Italian companies by giving firms incentives to build up additional equity by allowing 3 % of new equity to be deducted from income taxes.

Equity listings of SMEs remain limited. Initiatives aimed at developing trading platforms to raise equity capital for SMEs have been developed in each major country. Access to these markets is typically designed for enterprises that are small and medium-sized, rather than for micro firms, as the structure and the size of these operations still requires a structural minimum assets size. This feature allowed relatively faster growth of these platforms in countries such as the UK and Germany, where capital markets have been traditionally more developed and where the share of medium-sized firms is higher compared with other countries. In order to improve the visibility and the attractiveness of a public listing, the operators of these markets are offering a broad range of complementary services aimed at supporting firms that could access these markets, but that lack the necessary expertise to exploit this possibility (Infelise 2014)

One successful case is Alternext Paris, founded in 2005, which lists almost 190 SMEs. After the successful launch in more flush times, access was eased in 2009 by adapting and streamlining the regulatory framework and rules (IIF 2013). The UK AIM (Alternative Investment Market) is also considered to have been successful due to a network of advisers that is experienced in supporting companies from the time they first consider a flotation, through helping them raise capital and through a knowledgeable investor base (Giovannini-Moran 2014). Non-EU successful examples are the Stock Exchanges of Tel Aviv and Toronto, as they enjoy a highly localized, sector specific and interconnected ecosystem.

6.2.7.9 Capital Markets

Capital markets represent an important alternative source of funding, but they are accessible mainly for large corporates domiciled in larger countries with more developed corporate bond markets. SMEs that face the more severe consequences of the credit crunch cannot afford the costs of bond issuance.

Alternative investment markets designed for the issuance of SME bonds are relatively more recent and less developed compared with analogous platforms targeting SME stocks. Exploiting less stringent regulation, those markets aim at overcoming the major barriers in terms of costs and transparency requirements that usually prevent SMEs accessing external finance through bond issuance.

SME high-yield bond issuance has attained considerable importance in Germany. Four of the eight German exchanges have started trading “*Mittelstand bonds*”. In Stuttgart, the BondM platform gives mid-cap SMEs the opportunity to issue bonds that can be sold direct to retail investors without an investment bank underwriting the issue. Covenant and documentation provisions and costs are also kept to a minimum (EC 2013a, b).

Italy launched a bond market in 2013. It allows non-listed SMEs to issue mini-bonds, which enjoy tax relief on interest costs and issuance expenses. Mini-bonds issues may benefit from a guarantee provided by the export credit and insurance public company *Servizi Assicurativi del Commercio Estero (SACE)* up to 70 % of the principal to the extent the mini-bond is issued to finance an internationalization project.

Created in 2000, Euronext is the first pan-European exchange, spanning Belgium, France, the Netherlands, Portugal and the UK. In May 2013, Euronext launched EnterNext (<https://www.enternext.biz/en>), designed to develop and promote its stock markets specifically for SMEs. Drawing on its pan-European presence, EnterNext brings together all Euronext Group initiatives for companies with market capitalization under €1 billion, including companies listed on Alternext (the French equity market for SMEs). EnterNext has dedicated teams and offices across Europe in Belgium, Portugal and the Netherlands, as well as in

several regions of France. EnterNext covers around 750 SMEs listed on Euronext markets in these countries.

However, the majority of specific SME markets or segments are struggling to attract companies: the smaller the company, the more disproportionate is the cost to the benefits of being listed. The main barriers to accessing these markets and segments are (ESMA SMSG 2012):

- High cost of capital due to limited investor interest;
- Lack of appropriate research coverage – SME research is generally not in itself a profitable activity;
- Low liquidity; SMEs' trading volumes tend to be limited;
- Higher transparency requirements impact on SMEs governance structure;

6.2.7.10 Funding Escalator

There are other different sources of funding that firms can access at different stages of maturity (seed financing, business angels, venture capital, private equity, and so on). These forms may combine to form a “funding escalator”, providing debt and equity as firms grow and their funding needs evolve. These schemes are more targeted than guarantee schemes and are restricted to specific groups of firms (ECB 2014).

As a way to reinvigorate private funding sources, several countries are using tax incentives designed to attract new investment funds. The French scheme allows French citizens to invest up to €12,000 per year in pooled managed funds, which then invest in SMEs. The Irish Employment and Investment Incentive Scheme allows individual investors to make direct investments in SMEs and obtain income tax relief on capital up to €150,000 per year.

Sometimes, public intervention aims to support young entrepreneurs in setting up their own business. In the UK, Start-up Loans support entrepreneurs aged 18–30 by providing them with loans even if they lack real collateral or a proven track record. Loans are supplied on evaluation of a viable business plan; the program, which started in May 2012, backed more than 12,000 businesses with an average loan size of £5700.

Applicants need to pay back the loans within five years at a 6 % fixed interest rate.

In Germany, through the ERP Start-up Loan (StartGeld and Universell), KfW helps business founders, self-employed professionals and SMEs (with an annual turnover of up to €50 million) with less than three years in business by providing loans of up to €100,000 at a favorable fixed interest rate. Loans need to be used to finance the expansion of young enterprises, for the succession of an enterprise, or for the takeover of an enterprise. Applications are submitted to KfW by a commercial bank, of which the applicant has free choice. KfW finances up to 100 % of the total investment. KfW does not make any specific requirement on collateral, which, in turn, has to be negotiated by commercial banks. The StartGeld scheme (for small enterprises with annual turnover of up to €10,000) is supported by a guarantee of the European Investment Fund (EIF), which implements the Competitiveness and Innovation Framework Programme (CIP). The commercial bank bears 20 % of the credit risk in the StartGeld scheme, and none in the Universell scheme.

The Netherlands is pursuing private-public partnerships with the goal of securing more seed funding. For example, to provide funding banks and the state are pooling resources through Qredits, a microcredit institution, while the EC and EIB Group are providing first-loss credit insurance.

6.3 Non-bank Financing: Credit Funds, Peer-to-Peer Lending and Crowd Funding

6.3.1 Shadow Banking Definition

Shadow banking transforms opaque, risky, long-term assets (collateral) into money-like, short-term liabilities. Regulated banks make short-term deposits, redeemable at any time, to create medium-/long-term credit. Convertibility is granted because deposit and cashing activities have become “worry free” thanks to deposit insurance. Deposit insurance makes the value of bank deposits “information insensitive”. In other

words, similarly to currency, diligence to the transaction is not strictly required.

Likewise, shadow banking uses securitized finance (such as covered bonds) and securitization techniques (asset pooling, tranching techniques and credit enhancements) to create information insensitive debt to be “converted” into credit in financial markets (such as repo markets). As with demand deposits in the traditional bank sector, senior tranches of securitizations used as collateral to obtain credit in the collateralized funding markets were perceived until the crisis as “information insensitive”. The presence of “information insensitive” debt led financial operators to underestimate the counterparty risk. This is not an issue per se, provided the collateral used in the transactions is transparently of high quality. Secured markets in themselves are in fact, *ceteris paribus*, a less risky funding source compared with unsecured lending (i.e. inter-bank borrowing).

Securitization is a form of credit risk transfer (CRT), similar to syndicated loans and credit derivatives. Securitization includes Asset Backed Securities (ABSs), Mortgage-Backed Securities (MBSs, of which RMBSs are the Residential MBSs), Collateralized Loan Obligations (CLO), and Collateralized Debt Obligations (CDO). The three main benefits to issuers are: (1) an additional funding channel; (2) portfolio risk-management; (3) arbitrating regulatory capital requirements.

Typically, the originating bank sells loans to a Special Purpose Vehicle (SPV), which then sells the securities to the investors. The SPV is sponsored by the bank itself, although often, before the crisis, the SPV was not consolidated from a regulatory perspective in the bank’s balance sheets. SPVs contributed substantially to the creation of credit, in many cases for the purposes of regulatory arbitrage, rather than for channelling credit to the real economy. From that perspective, vehicles investing in long-term assets and issuing short-term asset-backed commercial papers (ABCPs) played a crucial role. Starting from August 2007, the ABCP market closed abruptly to non-bank investors and shrank in terms of size.

The securities could then be sold in the repo market. A repo agreement, also known as a repo, is an agreement in which the seller is to buy back the securities at a later date. The party that originally buys the securities actually acts as a **lender**; the original seller is, indeed, acting as a

borrower, using the security as **collateral** for a secured cash **loan** at a fixed interest rate. This practice is known as hypothecation.

Re-hypothecation occurs when a lender re-uses assets pledged as collateral by borrowers as collateral for its own borrowing. Re-hypothecation contributed to the increase in the amount of debt exposures. The IMF calculated that, at the inception of the crisis, US banks were receiving over US\$4 trillion worth of funding by re-hypothecation, much of it sourced from the UK. In 2009, the IMF estimated that the funds available to US banks due to re-hypothecation declined by more than half.

These shadow banking activities are implicitly enhanced by official guarantees, either directly (because they are guaranteed by a government agency, as in the US) or indirectly (because they are off-balance sheet liabilities of regulated financial institutions). Among the latter, partnership between direct lending funds and banks increased since the peak of the crisis. In general, banks underwrite debt using their credit expertise and their close relationships with companies and distribute to insurers looking to diversify their investments. In this way, banks limit the impact of these loans on their capital requirements and the lending funds enjoy the indirect official credit guarantee. French asset manager Amundi, for example, has partnered with UniCredit to offer financial support to the German mid-market. Likewise, in the UK, Barclays announced its partnership with private debt lender BlueBay Asset Management (a unit of Royal Bank of Canada) to provide a uni-tranche debt facility for mid-market private equity deals.⁵ Generali has signed a joint deal to finance Germany's *Mittelstand* with Dusseldorf-based bank IKB and Gothaer, a local insurance group.

In addition, a wide range of credit intermediation activities have appeared on the scene which do not require official credit enhancement, such as security lending activities of insurance companies, pension funds and certain asset managers (Pozsar et al. 2012). Corporations remain the major users of securitization, through both the securitization market and ABCP programs. Large and medium-sized corporations frequently use

⁵A uni-tranche debt facility is a single tranche term facility, provided principally by credit funds. More narrowly, it is a term facility which, from a borrower's perspective, contains only one class of lender and under which a common interest rate is charged.

ACBP programs to raise cash from the sale of trade receivables and leases in a cost efficient manner (AFME 2013). Non-bank institutions may compete with traditional banks as far as they are able to get information advantages alternative to relationship banking – a result mainly achieved through specialization in the assessment of specific credit risks, related to either the company stage or its main activities. Non-bank lending can take off regardless of traditional banks only if it can benefit from a direct official enhancement.

6.3.2 Shadow Banking and the Crisis

The financial crisis that began in 2008 was triggered by the losses on US sub-prime RMBSs; that is, losses on securities backed by mortgages to households with low credit merit (low-income earners, temporary workers, etc.), following the burst of the real estate bubble in the USA. However, it is still a matter of debate whether the mortgage lender side or the security issuer side is to blame.

The lender side is associated with the so-called “Originate-to-Distribute” (OtD) model: the underwriters (originators) of the sub-prime mortgages (mainly US non-banks) used to fund themselves selling (distributing) the mortgages, often mis-rated by CRAs, to other financial institutions that would then securitize the loans. This model is supposed to have misaligned incentives, weakening the monitoring exercise of lenders and loosening lending standards.

The issuer side is associated with securitization techniques allowing the slicing and subsequent pooling of credit risks and their distribution to a myriad of investors, freeing capital and lowering the cost of funding. These securities could then be re-used in even more complicated derivatives (such as synthetic securities, re-securitization and CDOs). This process was finalized to produce new assets that could be used in the repo market to generate liquidity and allow financial institutions to meet the increasing demand for credit. While simplified information (in the form of ratings) allowed an enlargement in the plateau of potential buyers of these securities at the same time, the entire securitization process was, in fact, a machine to reduce transparency. As a consequence, supervisors

and central bankers, no less than market participants, were progressively affected by an information gap as to the extent and allocation of risks.

Certainly, the panic generating the crisis led to the shadow banking sector in the USA. US shadow banking grew in parallel to the development of low-income households' policies. Bill Clinton was the initiator of these policies, which were then continued by President Bush. These policies were promoted by the enhanced role of the government-sponsored enterprises (GSEs), Fannie Mae and Freddie Mac; highly leveraged banks which invested in mortgages and developed the securitization of sub-prime mortgages.⁶

Securitization played a crucial role both in the availability of "information insensitive" collateral and in the leverage effect, as collateral may be re-packaged and its credit quality enhanced, increasing overall credit supply.⁷

Low-quality collateral (often sub-prime mortgages), which was perceived as information insensitive debt, *suddenly* became "information sensitive" debt, as a consequence of deterioration of the underlying credit following the burst of the real estate bubble. However, financial operators did not judge it necessary, or were often not properly equipped, to assess the risk embedded in those assets (rating was often one of prevailing factors for decision-making). As a consequence, uncertainty on the true value of the ABSs underlying collateral and other derivatives fluctuated widely, while diversification brought no significant risk reduction.

CRAs played a special role between the lender and the originator sides. Securities have to be rated in order to be sold to a large set of investors; furthermore, regulation requires banks and other investors to invest only in (highly) rated assets. The ratings proved to be inaccurate, at least. In fact, some 90 % of triple-A rated securities that were supposed to have a minimum life expectancy of seven years were downgraded over a very

⁶On GSE, see Acharya et al. (2011a) and Acharya et al. (2011), who define them as the "world's largest and most leveraged hedge funds". Since 1992, GSEs were supervised by the Office of Federal Housing Enterprise Oversight (OFHEO), lodged in the Department of Housing and Urban Development (HUD). GSEs started lowering their underwriting standards since the mid-1990s.

⁷It may be noted that the abrupt cessation of the securitization market to convert a broad range of collateral into credit in the market was substantially mitigated by the central banks' collateral frameworks (broad eligibility criteria and stable haircuts) and accommodating liquidity management policies. These were the most important policies and tools for systemic crisis management.

short time span after July 2007. Four factors are usually mentioned to explain why (Mullard 2012):

1. Conflict of interest, arising from the “issuer pay” model that had prevailed since the 1970s⁸ and from the possibility of providing advisory services both to the structuring of securities and to their rating;
2. The CRAs’ oligopoly position⁹ set barriers to entry (economies of scale, advantage of experience, brand name reputation);
3. Flaws in the mathematical models designed to estimate default probabilities – in particular, in catching innovations (such as adjustable rate mortgages) and system breaks (the latter being common to other mathematical models used in finance);
4. The legal framework, which exempts CRAs from legal accountability, as ratings are usually assimilated to “investment opinions”.

One point is missing in this usual list: combined with the oligopolistic position of CRAs, the huge size and concentration of investment banking since the 1990s¹⁰ created an oligopoly-monopsony market prone to seller (in this case, CRA) cooperation (Spriggs and Sigurdson 1985). This seller cooperation was implicitly provided by the common adoption of backward-looking methodologies (which are likely to produce similar outcomes across different models) and aversion to innovation (on the latter, see Mullard 2012).

Therefore, CRAs tend to maintain their market share (and thus their short-term profits) at the expense of accuracy (and long-term reputation), being complacent with issuers. Securities were therefore overrated. Inflated triple-A ratings increased the demand for securities by institutional investors, including pension funds. The rapid downgrading of a

⁸This was not the case at the beginning provided CRSs were rating corporate bonds and therefore issuers tended to be small. In this case, losing an issuer to a competitor is not an issue. Things changed with securitization (see fn 9).

⁹For example, Moody’s and Standard & Poor’s were responsible for 94 % of ratings in the US market (see fn 10).

¹⁰Twelve underwriters account for 80 % of the deals in the USA (Mullard 2012). In this situation, losing a single issuer is a major concern.

large number of securities in July 2007 contributed to undermining market confidence.

The collateralized funding market in Europe has proved more resilient and not to be a source of systemic risk. The downgrade ratio and the default rate of European ABSs during the sub-prime crisis were significantly lower than that of US ABSs, with the exception of CMBSs. The main difference between the US and the European shadow banking is that the US shadow system relied more on government implicit guarantees provided by the GSEs, while the European banking sector relied more on the indirect guarantee provided by the traditional banking sector. Also for this reason, there were relevant different structural peculiarities in European shadow banking: diversified providers of collateral management services avoided the quasi-monopolistic recourse to a tri-party system owned by systemic important financial institutions, sub-prime assets were used as collateral less frequently and there was a larger adoption of international standard legal contracts.

6.3.3 Regulation of the Shadow Banking System

Shadow banking remains largely unregulated and the CRAs market remains structurally the same; that is, an oligopoly-monopsony market.

Furthermore, Europe is registering a recent and growing interest for direct financing to SMEs by non-bank institutions (Lugaresi 2015). European non-financial companies finance their investment largely through bank loans. During the crisis, many banks started to de-risk their business in order to adjust to pressures in their funding by de-leveraging their balance sheets (by increasing equity capital and/or disposing of assets), as well as applying changes to funding structure. This process was reinforced by changes in regulation (higher capital requirements, introduction of liquidity requirements) and may last for several years, with the consequence that credit may become less available and more costly.

Therefore, concurrently, increasingly regulated traditional banks complain that they have to face the unfair competition of unregulated shadow banking; the systemic risk of shadow banking has only been reduced,

while shadow banking is now also expected to play its role in providing non-bank credit to SMEs. How may fair competition be restored, system risk further reduced and, at the same time, non-bank credit favored? Let us revert to the analogy between the traditional bank system and shadow banking to discuss the regulation of shadow banking. From this perspective, understanding the rationale that led to the current regulatory framework for banks and related implications is crucial:

- Increase in bank capital requirements has the effect of reducing the relative size of the regulated banking sector and, therefore, increases the room for shadow banking.
- In the past, a bank charter became a title to future monopoly profits. Shadow banking reduces bank charter value. In attempts to maintain profitability, banks enter new activities, very often in riskier activities (including shadow banking).
- Financial innovation is largely driven by regulation and taxes.
- A logical consequence of the above considerations is that:
- The introduction of any new regulatory initiative should be duly calibrated in order to account for its potential unintended consequences (for instance, mis-calibrated regulatory arbitrage initiatives that would foster and de-stabilize the shadow system, rather than limit and stabilize it). As already stressed, shadow banking is the natural/unintended by-product of regulatory requirements introduced in the banking sector.
- Existing differences in the regulatory and supervisory environment across countries should be given due consideration as they are exacerbating the unlevel playing field.

Keeping that in mind, we suggest the following paths for intervention:

1. Strengthen supervision and market discipline for all financial players:
 - An adequate transparency framework should allow market discipline to work effectively and supervisors to perform powerfully in their role/duty. Lack of transparency in markets can lead to abusive behavior and facilitate violations of competition rules. Lack of

transparency makes it difficult, for authorities and risk managers, to monitor where risks are concentrated.

- Transparency is crucial to allow market discipline to function properly. For instance, the percentage of asset segregation on total assets of a bank could be properly disclosed. This would imply several benefits. First, it would limit outright the volume of securitization. Second, it would allow market discipline to work effectively (the higher or lower percentage of segregated assets on total assets will significantly change the risk profile of a bank with significant implications for its cost of funding). Third, it would maintain a balance between ABS note-holders and senior bond-holders in the context of bail-in (the excessive recourse to ABS issuance would undermine the position of senior bond-holders, since the latter would become structurally subordinated, with the risk making it increasingly difficult from the bank perspective to tap into the senior investment base).
2. Provide an adequate framework to better manage risks in the collateralized funding markets:
 - Standard contracts should be extended as far as possible among financial players, both in and outside Europe.
 - Strengthen market infrastructures: activities in Central Clearing Counterparties (CCPs) may help to increase transparency, efficiency and manage counterparty risk. However, it is important that the authority properly monitors the risk control measures adopted by the CCPs in order to avoid a situation where their unexpected generalized changes have unintended disruptive consequences.
 3. Introduce measures to internalize negative externalizations arising from shadow banking. A well-designed financial transaction tax (as introduced in Italy) may serve this purpose.
 4. Reform the CRAs market. Prudential supervisory authorities and competition authorities should make an in-depth investigation of the CRAs market. The breakdown of large investment banks and of CRAs may be necessary.

6.3.3.1 Direct Lending

There is a recent and growing interest for direct financing to SMEs by non-bank institutions; for example, by the setting up of specialized debt funds. However, the leaner structures of funds and their management limit their ability to obtain the level of grass-roots information efficiently.

In Germany, there is a large private placement market, known as *Schuldschein* (€10 billion issuance in 2012). *Schuldschein* are bilateral, unregistered and unlisted loan instruments sold directly to investors. In contrast to bonds, *Schuldschein* loans are not securities and are traded over-the-counter. The large German commercial banks and *Landesbanken* typically act as arrangers and intermediaries for *Schuldschein* loans. There is a limited secondary *Schuldschein* market, but it is less liquid than the bond equivalent. There is no specific *Schuldschein* regulation; however, their issuance is regulated under German banking regulations. There are several benefits of *Schuldschein* loans over bonds: short documentation, unrated issuance, confidentiality, flexibility of terms and conditions, and restricted distribution to institutions only (*Schuldschein* cannot be sold to retail investors directly).

France has been an innovator in direct lending: since August 2013, insurance firms have been allowed to invest up to 5 % of their liabilities in loans to unlisted companies (only listed bonds were allowed previously), either directly or through special funds (so called loan-to-real-economy funds or *Funds de Prêts à l'Economie*).

Partnerships between direct lending funds and banks have increased since the peak of the crisis. In general, banks underwrite debt using their credit expertise and their close relationships with companies, and distribute to insurers or asset managers looking to diversify their investments. In this way, banks limit the impact of these loans on their capital requirements and retain their clients while de-leveraging. The lending funds indirectly enjoy the official credit guarantee that banks enjoy directly. French asset manager Amundi, for example, has partnered with UniCredit to offer financial support to the German mid-market. Likewise, in the UK Barclays announced its partnership with private debt lender BlueBay Asset Management (a unit of Royal Bank of Canada) to provide a unitranche debt facility for mid-market private equity deals. Generali has

signed a joint deal to finance Germany's *Mittelstand* with Dusseldorf-based bank IKB and Gothaer, a local insurance group.

In UK, the Business Finance Partnership (BFP) is a program run by the UK Treasury aimed at stimulating funding through non-bank loans. The program was started in autumn 2012 and will invest £1.2 billion in different tranches. BFP stimulates private fund managers to invest in SMEs and medium-sized companies by co-funding up to 50 % of the loans' value. The Treasury manages the BFP and chooses which applicant funds to support, and fund managers operate independently according to their investment strategies (Infelise 2014).

6.3.3.2 Crowdfunding

Crowdfunding is the practice of funding a project or venture by raising monetary contributions from a large number of people, typically via the Internet. There are three types of crowdfunding (ESMA 2014): (1) reward-based crowdfunding, where the return to investment consists of a copy of the finished product; (2) security-based crowdfunding, where the return consists of securities or unlisted shares in a company, usually in its early stage; (3) loan-based crowdfunding, where the Internet platform collects the credit requirements and matches them with pools of investors willing to accept the credit terms.

Reward-based crowdfunding is popular mostly for creative endeavors such as films, music, games, free software development and scientific research (Standard and Poor's 2014). Examples of loan-based crowdfunding platforms in the USA are Lending Club and Prosper.

There are different types of risks associated with crowdfunding: fraud, liquidity and legal platform failure. In Europe, most countries do not have any specific regulation of crowdfunding; rather, they leave it to be dealt with under the existing relevant regulatory framework. In the case of pure investment crowdfunding (security-based), absence of specific regulation leaves it under the limits as stated in the Prospectus Directive: a Europe-wide requirement of a prospectus for issues larger than €5 million, and no obligation at all for issues under €100,000 (ESMA 2014).

Some EU member states have decided to take regulatory action on crowdfunding (among which are Italy, the UK, France and Spain). In July

2013, Italy became the first country in Europe to implement complete regulation on security-based crowdfunding, which applies only to innovative start-ups, and establishes a national registry and disclosure obligations for both issuers and portals. Other EU Member States have, instead, issued guidelines (Germany, Belgium and the Netherlands). Germany has not produced any specific regulation of crowdfunding, and yet is one of the European countries where equity crowdfunding has been more active.

In March 2014, the European Commission has published a Communication entitled “Unleashing the Potential of Crowdfunding in the European Union”. While the Commission does not intend to come up with legislative measures in the near future, it will carry out a study and will set up the European Crowdfunding Stakeholder Forum.

6.3.3.3 Peer-to-Peer Lending

A particular form of crowdfunding is peer-to-peer lending (P2P), whereby individuals lend to each other and small business via a website. P2P has been growing in the USA,¹¹ Germany and the UK.¹² By avoiding complex structures and the procedures of normal banks, and thus some overhead costs, as well as regulatory burden, a P2P lender can offer credit at relatively low rates and offer relatively higher returns to their investors, to whom the loans are sold in slices. Many of these lending websites are now becoming more active in lending to SMEs (Wehinger 2012).

Of the £1.2 billion funding of the UK government’s Business Finance Partnership, roughly £85 million has gone to seven “alternative funding” providers. The inclusion of these platforms in the scheme is a signal of the growth potential and growing acceptability of P2P among UK policy-makers. This process has been accelerated further by the inclusion of P2P lenders under the regulation of the Financial Conduct Authority from April 2014.

¹¹ The most prevalent market participants are Lending Club and Prosper.

¹² The main platforms in the UK are Funding Circle and Zopa, with the former focusing on SMEs and the latter on consumer lending. An overview of all P2P market participants in the UK can be found at <http://www.p2pmoney.co.uk/companies.htm>

Survey evidence in the UK suggests that 60 % of SMEs that used Funding Circle had tried previously to obtain bank financing, and 32 % would not have received funds from any other source. Such numbers suggest that, when assessing P2P against the “additionality” principle, there appears to be scope for improving credit access for SMEs. However, as the matter currently stands, retail investors considering P2P are not protected by legislation on issues such as anti-money laundering or fraud; neither are they guaranteed a transparent disclosure of the platforms’ credit checking processes. Furthermore, P2P platforms generally do not have any “skin in the game” in the loans transacted on their websites.

6.3.4 Summary

These initiatives provide some useful lessons. First, non-bank institutions may compete with traditional banks as far as they are able to get information advantages alternative to relationship banking. This may be achieved mainly through specialization in the assessment of specific credit risks, related either to the company stage, or to its main activities. Second, non-bank lending can take off independently of traditional banks only if it can benefit from a direct official enhancement or a well-functioning securitization market, which allows the transfer of risks.