UniCredit shares the view recently expressed by the authority and documented by the FSB in its background note dated April 10th 2010 of the need to define approaches for monitoring the shadow banking system and explore possible regulatory measures to address systemic risk and regulatory arbitrage posed by Shadow Banking.

On this respect, we are pleased to share with the FSB the view elaborated by a European cross border group (UniCredit) with respect to regulatory approach to Shadow Banking.

We will first define what shadow banking is, its systemic role during the crisis and the magnitude of the phenomenon; second, we will highlight regulatory and supervisory proposals.

I. WHAT IS SHADOW BANKING?

The role of Shadow Banking is to transform an asset (collateral) into credit. To understand better the phenomenon, which represents the natural/unintended by-product of regulatory requirements for banks, it is crucial to understand the premises on the basis of which credit is created. From that perspective, an analogy with the traditional banking system can be useful.

Regulated banks transform short term deposits, redeemable at any time, to create medium/long term credit. Convertibility is made possible because counterparties depositing money into a bank need not to worry about their money deposited and counterparties receiving credit do not worry about the value of the “check” received. Today, this is possible because of deposit insurance, the purpose of which is precisely to ensure that no party to the transaction, where the bank acts as intermediary, needs to be concerned about the value of the “check”. Deposit insurance makes the value of bank
deposits “information insensitive”. This means that, alike a currency, no one need devoting a lot of resources doing due diligence ¹.

Similarly, shadow banking uses securitised finance (such as covered bonds) and securitisation techniques (asset pooling, tranche techniques and credit enhancements) to create information insensitive debt to be “converted” into credit in the financial markets (such as repo markets). Like demand deposits in the traditional bank sector, senior tranches of securitisations used as collateral to get credit in the collateralised funding markets were perceived until the crisis as “information insensitive”. Due to the presence of “information insensitive” debt, financial operators underestimated the counterparty risk. This is not an issue per se, provided the collateral used in the transactions is transparently of high quality. Secured markets per se are in fact ceteris paribus a less risky funding source compared to unsecured lending (i.e.: inter-bank borrowing). On the other hand, secured lending and repo-like activities collateralised by complex and opaque securities (such as for example Residential Mortgage Backed Securities), particularly if combined with short term liquidity mismatch and concentration, may represent a source of systemic risk.

The Shadow System experienced a remarkable growth since the mid 90s. In the US, for instance, in March 2008 Shadow Banking amounted to a gross size of nearly US$20 trillion, significantly larger than the liabilities of the traditional banking system. Such a growth is explained by the massive production of collateral to be used in collateralised transactions. Following the crisis, a significant shrank has been experienced (see Fig. 1).

The systemic risk posed by the shadow banking is a function not only of the relevance of the phenomenon in terms of volumes, but also of the opacity generated and in the risk of mismanagement of the generated interconnectedness.

Opacity, it was mainly generated by complexity of certain securitization techniques (for example master trusts for Residential Mortgage Backed Securities) and the multiplication of conduits and Special Purpose Vehicles (SPV), whose information was not available in the balance sheets of financial companies, and through which securitisations were originated.

Interconnectedness has been amplified by the phenomenon of re-hypothecation in the repo market. Unfortunately, when the crisis erupted no adequate framework to properly manage interconnectedness was in place. For instance, the delivery and payment mechanisms, the definitions of credit events and other contractual standards were not necessarily the same. Moreover, the infrastructures were not sufficiently resilient to shocks (e.g. avoiding risks of excessive concentration of activity in one infrastructure, managing carefully changes of risk control measures in centralized infrastructures).

¹ G. Gorton (2010). This was not the case before the ‘30s, when demand deposits were not insured
II. THE SHADOW BANKING: MAGNITUDE OF THE PHENOMENON AND ROLE PLAYED IN THE CRISIS

The magnitude of the shadow banking system can be somehow approximated by the size of the ABS market to make a comparison between the US and the EU systems. As shown in Figure 2, the volume of ABS issuance in US has been remarkably higher than in Europe. The differential reached a peak in 2003, but has significantly shrunk since then.

Figure 2 – ABS HISTORICAL ISSUANCE

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2 Poznar et al., 2010
Indeed, the panic generating the crisis originated precisely in the shadow banking sector in the US. In this paper we focus on specific activities representing Shadow Banking which were of particular relevance in the context of the recent crisis.

- **Securitisation** played a crucial role both on the availability of “information insensitive” collateral and on the leverage effect, as collateral may be re-packaged and its credit quality enhanced, increasing overall credit supply.³ **Special Purpose Vehicles/Conduits**, most of which are sponsored by banks but are nevertheless representing a substantial part of the shadow banking since they are not consolidated from a regulatory perspectives onto the banks’ balance sheets, contributed substantially to the creation of credit, in many cases for regulatory arbitrage purposes rather than for channeling credit to the real economy. A crucial role from that perspective was played by those vehicles investing in long term assets and issuing short-term Asset Backed Commercial papers (ABCPs). Starting from August 2007, the ABCP market closed abruptly to non-bank investors and shrank in terms of size.

- **Collateralised funding** in particular:
  - **Low quality of collateral (often sub-prime mortgages)** which was perceived as information insensitive, and which became *all of the sudden* “information sensitive” debt, as a consequences of deterioration of the underlying credit following the burst of the real estate bubble. However, financial operators did not deem 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 about the true value of the ABS underlying collateral and other derivatives fluctuated widely, while diversification did not bring any significant risk reduction. Re-hypothecation contributed to increase the amount of debt exposures. The IMF calculated that at the inception of the crisis US banks were receiving over $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.
  - **The tri-party system**, which involves in the repo transaction a tri-party agent (Bank of New York or JP Morgan Chase, currently the two major clearing banks), which provides custody, valuation and settlement services for the exchange of cash and collateral between the borrower and the lender. As the crisis shown, for Bearn Stearns and Lehman it proved to be a source of high vulnerability to have most of the repo lines settled with a single tri-party private agent, driven by potentially commingled interests. Although nearly 40% lower than its peak size in 2008, at $1.7 trillion, the

³ It may be noted that the abrupt stop of the securitisation 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 polices. These were the most important policies and tools for systemic crisis management.
The tri-party repo market remains a key source of funding for primary dealers in the US.
- Liquidity mismatch and concentration on short term maturities.

Lehman’s default was triggered by an unsustainable short term funding need of about 30bn US$ mainly caused by short term funding mismatch in the “secured” area with collateral which turned to be illiquid even in secured markets within one week. Last but not least, as mentioned above, Lehman had most of the repo lines settled with a single tri-party private agent.

It is important to stress that due to different structural peculiarities (i.e.: diversified providers of collateral management services and no quasi-monopolistic recourse to SIFI-owned tri-party system, minor recourse to sub-prime assets used as collateral, large adoption of international standard legal contracts), the collateralised funding market in Europe has proved more resilient and a lower source of systemic risk.

III: REGULATION OF THE SHADOW BANKING SYSTEM

Let’s revert to the analogy between the traditional bank system and the Shadow Banking to investigate which regulatory proposals could be envisaged for the Shadow System. From that perspective, understanding the rational which led to current regulatory framework for banks and related implications is crucial:

- Bank regulation is fundamentally based on creating incentives for banks to limit risk taking. In the past, this incentive was based on the value created for banks by limitations on entry into banking. Bank charter became a title to future monopoly profits. Entry by competitors (shadow banking) reduces charter value. In attempts to maintain profitability, banks enter new activities, very often in riskier activities.
- When charter value is declining, either banks find profitable new activities or reduce their size. The increase in the capital requirement then serves the purpose of reducing the size of the official banking sector. Restrictions, such as capital requirements, cannot hold when there are substitutes for bank loans available (such as loans from non-banks or a shadow banking system).
- Financial innovation is largely driven by regulation and taxes. Regulation means constraints and costs. Imposing capital requirements on banks, for example, that are not consistent with their competitive environment accelerates disintermediation (i.e. Shadow Banking).

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 miscalibrated regulatory arbitrage initiatives that would foster and destabilise rather than limit and stabilise the shadow system). 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. For instance, in some EU countries, the national supervisory authority is requiring banks to consolidate, both from an accounting and regulatory perspective, all activities that can be assimilated to a banking activity (Conduits / Special Purpose Vehicles). The different behaviour of regulators and supervisors across countries is therefore creating the incentives for shadow banking and regulatory arbitrage to proliferate.

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

1. **Strengthen supervision and market transparency for all financial players**:

   - An adequate transparency framework should allow market discipline to effectively work and supervisors to perform their role/duty in a powerful way. We share the view expressed by the FSB to promote macro-prudential measures, such as regulatory measures for mitigating pro-cyclicality or policies to strengthen market infrastructure to lower contagion risks. Higher transparency of the shadow system is a key and crucial factor. “Lack of transparency in markets can lead to abusive behavior and facilitate violations of competition rules”\(^4\). Lack of transparency is “making increasingly difficult, for authorities and risk managers, to monitor where […] risks are concentrated […] It is therefore becoming increasingly important for risk managers, in both the private and the public sectors, to understand which risks are being accumulated by what financial entities.”\(^5\) Powers and responsibilities of the entities responsible for macro-prudential supervision (e.g. in EU the European Systemic Risk Board (ESRB)), should be properly designed to achieve this aim. Macro-prudential authorities should be provided with the necessary information, tools, resources and powers to cope with this task of developing an adequate transparency framework and to work closely with Senior Risk Managers in the so-called SIFIs, in order to achieve a far greater transparency and an incremental collaborative mechanism between the public and private sector, both in normal conditions and especially in stress ones.

   Transparency is crucial also to allow market discipline to properly work. For instance, the percentage of asset segregation on total assets of a bank could be properly disclosed. This would imply several benefits. First: to limit outright the volume of securitization; second, to allow market discipline to effectively work (the higher or lower percentage of segregated assets on total assets will significantly change the risk profile of a bank with significant implications on its cost of funding); third: to maintain a balance between ABS note-holders and senior bondholders in the context of bail-in (the excessive recourse to ABS issuance would undermine the position of senior bondholders, since the latter would become structurally subordinated, with the

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\(^4\) Joaquin Almunia, in an e-mailed statement reported by the WSJ on May 2\(^\text{nd}\) 2010

\(^5\) Trichet (April 2007)
risk to make increasingly difficult from the bank perspective to tap the senior investment base).

2. Bring under bank regulation shadow activities performed by banks:
   - Conduits and SPV currently off balance sheet should be brought back on balance sheet, hence being subject to accounting and regulatory requirements (including Basel III liquidity ratios, net stable funding rations, capital requirements).
   - Balance sheet reclassification should happen across countries, in order to promote a level playing field among jurisdictions.
   - Regulatory acknowledgment of market conventions which promote transparency, asset quality, simplicity/standardisation and liquidity, such as the market-led initiative Prime Collateralised Securities (PCS), aimed to support the real-economy assets, should be highly supported.
   - All activities performed directly or indirectly by banks, such as for instance risk positioning and trading transferred to funds (i.e. hedge funds) should be consolidated and regulated as other bank activities.

3. Provide an adequate framework to better manage risks in the collateralised funding markets:
   - Introduce adequate measures to deal with liquidity mismatch, concentration and roll over risk in the collateralised funding markets. Basel III, including the liquidity ratios, does not specifically address these risks.
   - Standard contracts should be extended as far as possible among financial players, in Europe and outside Europe.
   - Strengthen market infrastructures: activities in Central Clearing Counterparties (CCP) may help increasing transparency, efficiency and manage counterparty risk. However it is important that the authority properly monitors the risk control measures adopted by the CCP in order to avoid that their unexpected generalised changes have unintended disruptive consequences.

4. Introduce measures to internalise negative externalities arising from shadow banking.
   - Design measures to internalize negative externalities arising from shadow banking which will not be dealt with by the forthcoming SIFIs regulation.
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Contact persons:
Sergio Lugaresi, Head of Regulatory Affairs, Public Affairs, sergio.lugaresi@unicredit.eu
Micol Levi, Coordinator Regulatory Affairs, Public Affairs, micol.levi@unicredit.eu
Marco Laganà, Regulatory Affairs, Public Affairs, marco.lagana@unicredit.eu
Andrea Mantovani, Regulatory Affairs, Public Affairs, andrea.mantovani@unicredit.eu