

## **Shadow Banking: Scoping the Issues**

A Background Note of the Financial Stability Board

12 April 2011

## Table of Contents

Introduction .....	1
<b>1. A definition of “shadow banking system” .....</b>	<b>2</b>
1.1 Casting the net wide: Non-bank credit intermediation.....	2
1.2 Narrowing the focus: risks created by maturity/liquidity transformation, flawed credit risk transfer and leverage .....	3
<b>1.2.1</b> The shadow banking system as a systemic risk concern.....	<b>3</b>
<b>1.2.2</b> The shadow banking system as a regulatory arbitrage concern.....	<b>5</b>
1.3 Facilitating maturity/liquidity transformation and leverage.....	5
<b>2. Potential approaches for monitoring the shadow banking system .....</b>	<b>6</b>
<b>2.1</b> Current monitoring practices for the shadow banking system.....	<b>6</b>
<b>2.2</b> Improving the monitoring framework for the shadow banking system.....	<b>7</b>
<b>3. Categorising the possible regulatory measures for the shadow banking system .....</b>	<b>7</b>
Annex: The Structure of the Shadow Banking System.....	9

# Shadow Banking: Scoping the Issues

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### Introduction

At the November 2010 Seoul Summit, in view of the completion of the new capital standards for banks (Basel III), the G20 Leaders identified some remaining issues of financial sector regulation that warranted attention. They highlighted “strengthening regulation and supervision of shadow banking” as one of these issues and requested that the Financial Stability Board (FSB), in collaboration with other international standard setting bodies, develop recommendations to strengthen the oversight and regulation of the “shadow banking system” by mid-2011.<sup>1</sup>

The “shadow banking system”, which will be defined in more detail in the next section, can broadly be described as “credit intermediation involving entities and activities outside the regular banking system”. Intermediating credit through non-bank channels can have advantages. For example, the shadow banking system may provide market participants and corporates with an alternative source of funding and liquidity.

However, as the financial crisis has shown, the shadow banking system can also become a source of systemic risk, both directly and through its interconnectedness with the regular banking system. It can also create opportunities for arbitrage that might undermine stricter bank regulation and lead to a build-up of additional leverage and risks in the system. Enhancing supervision and regulation of the shadow banking system in areas where systemic risk and regulatory arbitrage concerns are inadequately addressed is therefore important.

In response to the G20’s request, the FSB organised a workshop of experts hosted in London on 6 December 2010 to exchange views on the shadow banking system. The FSB has since formed a task force to develop initial recommendations for discussion that would:

- (i) clarify what is meant by the “shadow banking system”;
- (ii) set out potential approaches for monitoring the shadow banking system; and
- (iii) explore possible regulatory measures to address the systemic risk and regulatory arbitrage concerns posed by the shadow banking system.

This paper sets out the current thinking of the task force especially on the first of the above three items so as to invite views from the public in taking the work forward.<sup>2</sup> Based on the work of the task force, the FSB will consider initial recommendations at its July Plenary meeting and submit recommendations to the G20 in autumn.

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<sup>1</sup> *The Seoul Summit Document*, November 2010, Para. 41

<sup>2</sup> The Financial Stability Board welcomes comments on this document. Comments should be submitted by 16 May 2011 by email to [fsb@bis.org](mailto:fsb@bis.org) or post (Secretariat of the Financial Stability Board, c/o Bank for International Settlements, CH-4002, Basel, Switzerland).

## 1. A definition of “shadow banking system”

The term “shadow banking system” started to be used widely at the onset of the recent financial crisis. The emergence of the term reflected a recognition of the increased importance of entities and activities structured outside the regular banking system that perform bank-like functions. The crisis demonstrated many ways in which shadow banking is interrelated with the regular banking system and can have an impact on global financial stability. While the term is used widely in the news media and in policy discussions, there is as yet no clear commonly-agreed definition. This stems not only from its recent origins but also from how the banking sector is structured and regulated in each jurisdiction. Moreover, financial transactions outside the banking sector can be complex and may evolve over time depending on factors such as financial innovation and regulatory changes. A flexible forward-looking perspective is crucial to capture mutations in credit intermediation that can pose risks to the financial system.

Given the fluid, evolving nature of the system, the task force proposes that monitoring and responses be guided by a two-stage approach.

- Firstly, authorities should cast the net wide, looking at all non-bank credit intermediation to ensure that data gathering and surveillance cover all the activities within which shadow banking-related risks might arise.
- Authorities should then narrow the focus, concentrating on the subset of non-bank credit intermediation where maturity/liquidity transformation and/or flawed credit risk transfer and/or leverage create important risks.

This does not mean that non-bank activities that are not captured by the definition of credit intermediation cannot pose risks to the financial system and hence are of no concern to authorities. Rather it is based on the view that the above definition is sufficient to delineate the current project on shadow banking and that other sources of systemic risk should be pursued under different FSB initiatives.

### 1.1 Casting the net wide: Non-bank credit intermediation

First, it is essential to cast the net wide by considering “**the system of credit intermediation that involves entities and activities outside the regular banking system**”. This would allow authorities to obtain a broad view on the credit intermediation that is occurring fully or partly outside the regular banking system, so that they can monitor the overall provision of credit and in particular identify any adaptations or mutations that may be of potential concern. Such an approach is important even though not all aspects captured under this broad definition may currently be of policy relevance.

The broad definition is nevertheless limited in scope to “**credit intermediation**”. Only entities and activities involved in extending credit (either directly or as part of a chain of credit intermediation) or involved in facilitating its intermediation are included.<sup>3</sup> For example, pure equity trading and foreign currency transactions by entities outside the regular banking system would be excluded, unless they constitute part of a credit intermediation chain.

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<sup>3</sup> The focus on credit intermediation encompasses not only on-balance sheet transactions but also derivatives and other off-balance sheet transactions that can constitute the credit intermediation chain.

Trading of credit-related financial instruments such as bonds and structured/hybrid financial products meanwhile would be included in the scope of this broad definition.

This wide net surveillance would focus in particular on “**entities and activities outside the regular banking system**”. This implies that credit intermediation takes place in an environment where prudential regulatory standards and supervisory oversight are either not applied or are applied to a materially lesser or different degree than is the case for regular banks engaged in similar activities.

A shadow banking system can be composed of a single entity that intermediates between end-suppliers and end-borrowers of funds, or more usually it could involve multiple entities forming a chain of credit intermediation. In the latter case, one or more of the entities in the chain might be a bank or a bank-owned entity. Banks might also be exposed to the shadow banking system through temporary exposures (warehousing), through the provision of finance, and/or through contingent credit lines. In addition, banks can be funded by entities which form part of the shadow banking system (eg money market mutual funds). Thus, while the focus is on identifying activities which are not covered by regular bank regulation, it is also important to examine connections between non-bank and bank activities.

## **1.2 Narrowing the focus: risks created by maturity/liquidity transformation, flawed credit risk transfer and leverage**

While authorities should start by casting the net wide, they then should focus on those elements of non-bank credit intermediation where important risks are most likely to emerge. To do this, authorities would concentrate on activities which give rise to either or both of the following concerns:

- (i) **systemic risk concerns:** as discussed below, these predominately arise from activities that generate maturity and/or liquidity transformation, that involve flawed credit risk transfer, and that create or facilitate leverage; and
- (ii) **regulatory arbitrage concerns:** shadow banking activity can be used to circumvent and undermine banking regulations.

These considerations suggest that the portion of the shadow banking system that merits increased attention from authorities can be defined as “**a system of credit intermediation that involves entities and activities outside the regular banking system, and raises i) systemic risk concerns, in particular by maturity/liquidity transformation, leverage and flawed credit risk transfer, and/or ii) regulatory arbitrage concerns**”.<sup>4</sup>

### **1.2.1 The shadow banking system as a systemic risk concern**

The provision of **maturity/liquidity transformation**<sup>5</sup> and **leverage** can make credit intermediation by non-bank entities “bank-like” and raise concerns for authorities to the extent that they **create systemic risks**. In the shadow banking system, funds can be raised

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<sup>4</sup> The narrow definition excludes, for example, life insurance companies that basically focus on simple life insurance businesses (where there is usually no maturity and/or liquidity transformation as well as no securities lending).

<sup>5</sup> “Maturity transformation” is the activity of issuing short term liabilities (such as deposits) and transforming them into medium–long term assets (such as loans). “Liquidity transformation” is the issuing of liquid liabilities to finance illiquid assets. An asset is illiquid when it cannot be easily converted into cash without a loss in nominal value.

from suppliers (eg households, corporates, financial institutions) through short-term or callable deposit-like liabilities including repos. These funds are then transformed (sometimes via securitisation) into assets such as mortgages, auto loans and other longer-term and/or less liquid assets. They can also be re-invested (or the collateral can be re-hypothecated) to build up leverage. Of course banks too provide similar maturity/liquidity transformation and use leverage in their credit intermediation activities. However, to a greater extent than is the case for banks, non-deposit instruments<sup>6</sup> are used in shadow banking activities to raise funds. As is the case for bank deposits, such instruments are typically short-term and highly liquid, but the risk profile vis-à-vis investors is usually different because they are offered without an explicit official sector backstop and/or without being subject to the same prudential standards and supervision.

Maturity/liquidity transformation within the shadow banking system, especially if combined with high leverage, raises systemic concerns for authorities because of the risk that **short-term deposit-like funding in the shadow banking system can create “modern bank-runs” if undertaken on a sufficiently large scale.** A withdrawal of “run-able” deposit-like instruments such as short-dated ABCP, short-term repos and money fund investments could undermine the wider financial system.

**The leverage built up within the shadow banking system can also amplify procyclicality.** Through the utilisation of non-deposit sources of collateralised funding such as repo and cash collateral reinvestment from securities lending, or because of flawed credit risk transfer through securitisation, shadow banking activities can facilitate high leverage, especially when asset prices are buoyant and margins/haircuts on secured financing are low. But this can expose market participants to disruption when confidence evaporates in the markets, the value of collateral securities falls and margins/haircuts are increased, leading potentially to abrupt deleveraging and asset fire sales.

In addition to the systemic risks deriving from within the shadow banking system, **the shadow banking system’s interconnectedness with the regular banking system can raise systemic concerns.** The shadow banking system and the regular banking system are highly interlinked, with banks often composing part of the shadow banking chain or providing (explicit or implicit) support to the shadow banking entities to enable maturity/liquidity transformation (and thus facilitating shadow banking activities). Furthermore, banks invest in financial products issued by shadow banking entities alongside other suppliers of funds such as households and corporates. They are also often exposed to common concentrations of risks in financial markets through asset holdings and derivative positions even where there is no clear direct connection. This interconnectedness between the two systems can exacerbate the procyclical build-up of leverage and thus heighten the risks of asset price bubbles, especially when entities in both systems invest in the same assets. Moreover, the interconnectedness can amplify market reactions when liquidity is scarce in the financial markets – indeed such reactions can themselves intensify the loss of liquidity. Banks are thus likely to be significantly affected by developments in the shadow banking system.

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<sup>6</sup> For example, money market fund (MMF) shares/participations, issuance of short-term commercial paper (CP), ABCP, borrowing in the short-term repo markets and taking of cash collateral against securities lending.

### **1.2.2 The shadow banking system as a regulatory arbitrage concern**

The shadow banking system in parts or as a chain can undertake “bank-like” credit intermediation (ie combined with maturity/liquidity transformation and leverage) without being subject to the same regulatory constraints as banks that have access to an official liquidity backstop and deposit insurance.

If parts of the shadow banking system are able to operate without internalising the true cost of its risks and thus gain a funding advantage relative to banks where regulation aims to achieve such an internalisation, this is likely to create opportunities for **arbitrage that might undermine bank regulation and lead to a build-up of additional leverage and risks in the system**. Moreover, banks themselves may use shadow banking entities to increase leverage and find ways to circumvent their regulatory capital or liquidity requirements. For example, before the crisis, banks substituted asset backed commercial paper (ABCP) financing for regular bank lending because the capital requirements for ABCP back-up lines were lower under Basel I. Some banks may also use funding structures through shadow banking entities that issue daily redeemable shares or units, with the collected funds being “invested” and lent to the sponsoring bank at longer maturities. The net effect of these actions is an increase in *economic* credit or liquidity risk in the banking system beyond the *regulatory* limits for credit and liquidity risk. Although Basel III closes a number of identified shortcomings, both the incentives for, and the risks associated with, regulatory arbitrage will likely increase as Basel III raises the rigour of bank regulation.

### **1.3 Facilitating maturity/liquidity transformation and leverage**

Some entities act simply to facilitate maturity/liquidity transformation and leverage in the shadow banking system. These entities provide explicit or implicit support such as liquidity facilities and financial guarantees that reduce the costs of short-term fund raising for entities in the shadow banking system. Those taking financial risk exposures include banks, financial guarantors, monoline/mortgage insurers and other protection sellers. Other entities that do not take financial risk exposures may include credit rating agencies (CRAs) that assign ratings that are well-accepted in the global investor community; indeed CRAs were critical in supporting the rapid development of structured financial products.

Although reducing costs for credit intermediation and extension can be beneficial for the economy, it may also facilitate the build up of leverage within the shadow banking system as well as adding to the exposures of the regular banking system to the shadow banking system. A particular concern is that many activities for facilitating maturity/liquidity transformation and leverage, such as the provision of guarantees or insurance or sales of out-of-the-money options, create contingent exposures that are not transparent and may only become evident during times of systemic stress.

Exhibit 1 in the Annex provides an illustration of the overall framework of the shadow banking system. Since a shadow banking system can be sliced into various pieces in a chain of credit intermediation and is shaped by the regulatory/supervisory frameworks in each jurisdiction, it is crucial to approach the shadow banking system by its economic substance rather than by legal form/entity. It is also important to note that different parts of the chain are frequently located in different jurisdictions, underscoring the need for a global approach to monitoring and policy responses.

## 2. Potential approaches for monitoring the shadow banking system

### 2.1 Current monitoring practices for the shadow banking system

The instruments, markets and entities that make up the shadow banking system are often complex and have historically been outside the focus of authorities for purposes of identifying and monitoring systemic risk and regulatory arbitrage. Furthermore while some activities and entities that fall under the definition of shadow banking have been subject to regulation by a non-banking regulator, others have remained outside of the perimeter of regulation. As a result, some components of the shadow banking system have tended to be opaque to outsiders and have often been excluded from standard statistical collection frameworks. Moreover, shadow banking operations tend to evolve quickly to meet new market conditions, compounding the difficulties of tracking their development through data collection or supervisory monitoring efforts that are based on stable definitions and concepts.

Nevertheless, on the basis of currently available information, the task force members have been monitoring or “mapping” the shadow banking system in their jurisdictions through **a combination of quantitative and qualitative information from both a i) macro (system-wide) and ii) micro (entity/activity-based) perspective.**

- (i) **The Macro-perspective in monitoring the shadow banking system:** Quantitative information derived from Flow of Funds/Sectoral Balance Sheet data (hereafter Flow of Funds data) is often used as a proxy that would provide a macro-financial perspective. The aim is to try to estimate **the size and growth rate of the financial assets in the shadow banking system**, usually in a broad sense, both in absolute terms and in relation to the total debt, GDP, and size of the regular banking system. A macro-perspective can give a very broad picture of how the shadow banking system is evolving over time and alert the authorities to changes in the system that may not immediately be picked up from a micro-perspective. If there is sufficient detail in the sectoral breakdown, it can also be useful in helping to assess the funding vulnerabilities of broad shadow banking sectors and non-financial sectors.
- (ii) **The Micro-perspective in monitoring the shadow banking system:** Both quantitative and qualitative information are used in monitoring from a micro-perspective. Under the quantitative approach, survey data, published releases or market data available from commercial vendors on stocks and flows for related products are typically used to identify the scale of certain types of entities or instruments. In addition, counterparty credit exposure data of the regular banking sector or other regulated sectors (eg insurance companies) are also utilised to provide a “window” into the shadow banking system and can help to identify potential spill-over risks from the shadow banking system to the regular banking sector. Data on intra-group activities may also be useful. These indirect data can be useful especially in jurisdictions where the regular banking system constitutes most of the overall credit intermediation. Since Flow of Funds data are secondary statistics and, in some cases, become available only after a significant time lag, these quantitative micro-data can offer a more timely perspective for monitoring developments and risks in particular areas of the shadow banking system.

In addition to quantitative information, authorities use market intelligence built on regular dialogue with market participants and information obtained from on-site and off-site monitoring of regulated entities to understand new developments and risks in the shadow banking system. This information is useful in providing the authorities with a forward-looking perspective so that they can anticipate developments and, potentially, act to prevent the emergence of associated risks.

## **2.2 Improving the monitoring framework for the shadow banking system**

The task force has embarked on a preliminary data exercise to map the shadow banking system through these two perspectives with a view to identifying potential problems, inconsistencies or gaps that would provide a basis for proposing improvements and/or new approaches for enhancing the monitoring framework.

Although the preliminary data exercise is still at an early stage, the task force has already spotted a number of significant limitations in both the macro and micro perspectives in monitoring the shadow banking system. For example, the current Flow of Funds data in many jurisdictions lack granularity in terms of financial sectors. Also, statistical definitions of different types of financial intermediaries diverge across jurisdictions, making it difficult to aggregate across countries and come up with a consistent global picture.<sup>7</sup>

Similarly, the quantitative and qualitative information collected from the micro-perspective seem to have many limitations. Although authorities can provide some data for regulated non-bank entities, it is extremely difficult for them to provide high quality information on entities outside their regulatory perimeter. Moreover, data on regulated non-bank entities often lack a sufficiently long time series and contain only a few basic information items. The information also often lacks consistency and so cannot be readily compared or aggregated to obtain a broader picture even within a jurisdiction, let alone in comparison with others. It is also difficult to identify and assess the risks of entities and activities located in offshore financial centres which are prevalent in some parts of the shadow banking system.

The task force intends to continue identifying gaps in information through the preliminary data exercise and to develop recommendations for improving the monitoring framework from both of the two perspectives. The task force will also consider ways to combine them.

## **3. Categorising the possible regulatory measures for the shadow banking system**

Shadow banking includes a wide variety of activities and entities. As a result, a single regulatory approach for all component of the shadow banking system is unlikely to be desirable. Rather, differentiation may be required to account for differences in business model, risk characteristics and contribution to systemic risk. Accordingly, the regulatory response to shadow banking should be carefully balanced and targeted to the risks the system creates, taking into account the expected costs and benefits of potential policy interventions in a comprehensive way and using appropriate criteria on which to judge their efficacy. In

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<sup>7</sup> An international initiative to improve the data is underway (recommendation 15 of the 20 recommendations in the report by the IMF and FSB to the G-20 on *The financial crisis and information gaps*, November 2009).

addition, regulatory responses need to be forward-looking and flexible, so they should not focus solely on the recent crisis but also address issues and problems that may arise as financial markets adapt and evolve for example as institutions adjust in response to the changes in incentives provided by the Basel III framework.

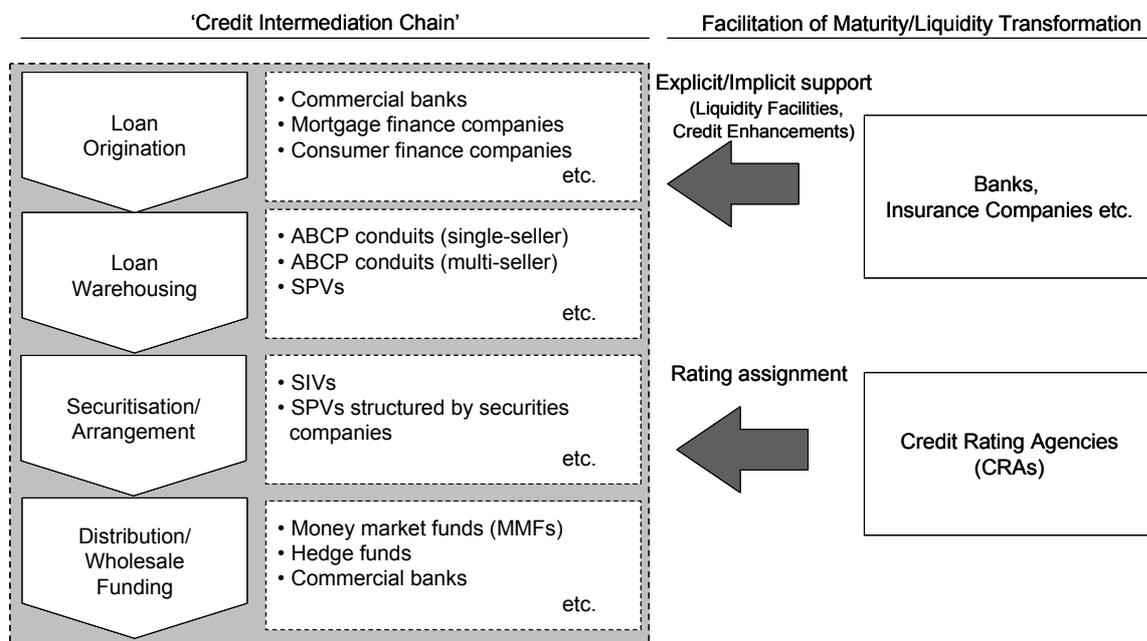
Broadly, any proposed regulatory response on shadow banking is likely to fit within the four categories outlined below:

- (i) **Banks' interactions with shadow banking entities (indirect regulation):** By regulating banks' interactions with shadow banking entities, the spill-over of risks into the regular banking system will be reduced. Actions can also be taken to close opportunities for regulatory arbitrage by which banks seek to reduce capital or liquidity requirements by organising transactions wholly or in part through shadow banking entities.
- (ii) **Shadow banking entities (direct regulation):** Shadow banking entities can themselves be regulated to reduce the risks they pose to the system.
- (iii) **Shadow banking activities:** Instead of regulating shadow banking entities, authorities may intervene to address risks affecting particular instruments, markets or activities so as to facilitate sound credit intermediation through the shadow banking system.
- (iv) **Macro-prudential measures:** Rather than focusing on certain entities or activities, policy measures can address systemic risk in the shadow banking system more broadly (eg regulatory measures for mitigating procyclicality or policies to strengthen market infrastructure to lower contagion risks).

The task force will explore possible regulatory options within each of the above high level categories, taking into account regulatory measures already in place and initiatives underway by relevant national authorities and international standard setters.

# Annex: The Structure of the Shadow Banking System

## Exhibit 1: The Shadow Banking System



Note: This is a simplified image.