Europe in transition

Bridging the funding gap

White Paper

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EXECUTIVE SUMMARY

Central bank funding has postponed the deleveraging of Europe's banking system. Conservative estimates of the impact of new prudential capital and liquidity rules for banks in Europe indicate a minimum €4 trillion gap in funding for the economy in the next 5 years.

The necessity of such new prudential rules is not in question, but unless this funding gap can be bridged, Europe faces the potential of an economic wasted decade.

The barrier to banks lending more is capital, rather than liquidity, and as a result two clear alternatives present themselves - either banks must increase the amount of capital they hold or non-bank sources must replace the lost funding.

Four key factors constrain banks' ability to raise additional capital:

(i) *dilution*: repetitive dilutive impacts lead to strong resistance from existing shareholders.

(ii) *uncertainty*: the "chicken and egg" conundrum that banks' problems will not be over until the European economy exits recession and the banks recapitalize; and the economy will not improve and the banks will not be able to recapitalize until their problems are surmounted.

(iii) *business model*: banks' ROEs are expected to be substantially below the present cost of capital for banking institutions.

(iv) *no more "too big to fail"*: greater willingness by politicians to see banks fail, reduces the institutional support equity holders have become used to.

This explains the IMF's and the banks' own €2 trillion deleveraging predictions. Add to this a minimum of €600 billion of "frozen" cash resulting from the new liquidity rules and the €1.6 - €1.9 trillion needed to fund growth (excluding infrastructural spending) and the size of the challenge becomes very clear.

If the banks cannot fill the gap, this means either the public sector or the capital markets must. With European public expenditure in the throes of fiscal consolidation, the primary gap must be addressed through the capital markets.

Although large corporates can already tap capital markets, SME's (the drivers of employment in Europe) and consumers (large drivers of growth and prosperity) cannot.

A number of financing paths are being explored to channel capital market investments directly to SME's, consumers and infrastructural projects.

This paper examines some of the hurdles that must be overcome for these channels to open up:

(i) differences in approaches to risk between most capital market participants and banks;

(ii) high, and often uneconomic, cost for capital market participants of creating a direct lending infrastructure;

(iii) capital markets' preferences for liquid forms of investment;

(iv) high cost for global investors to develop the local knowledge required for direct lending.

Having examined these hurdles, the paper sets out why the most likely, tested and scalable channel available to Europe is securitisation, thus making it a key component of any successful attempt at bridging the funding gap for borrowers without direct access to the global capital markets.

The paper reviews the challenges presented by securitisation in light of the role played by certain securitisations as a major contributor to the crisis. Based on thorough analysis of five years of crisis, it is now possible to identify clearly the aspects that divide strong and resilient securitisations from those that failed so dramatically in 2007/2008. The key elements of risk can be set out as follows:

(i) "originate to distribute" business models where banks believe they no longer have an economic interest in the long term future of their lending.

(ii) leveraged securitisations, where small changes to the underlying risk create large effects on the credit resilience of the securitisation.

(iii) securitisations that embed "maturity transformations" so that repayment of the securitisation is dependent on a market refinancing of existing debt.

(iv) transparency issues that made it difficult or impossible for investors in some securitisations to understand the risk they were taking.

Based on these principles, the paper concludes that sound securitisation has an important role to play in bridging the role of the banking system as the traditional distributor of funding to the European economy, with the capital markets as a significant future supplier of that funding in a deleveraged banking system.

THE CHALLENGE FACING EUROPE

A catastrophe averted, a crisis postponed

Since 2008, the banking sector has been in a state of crisis. This crisis has been largely a crisis of liquidity: the normal mechanisms through which banks obtained and moved funds and which were centered on the inter-bank market, to a large extent broke down. The insolvency of Lehman brothers in September of that year, followed by the near insolvencies of a number of US, British, Irish and German institutions which had to be rescued by the state or forced into mergers, cut off many banks from the short term money markets that are the life blood of financial institutions. Although this paper concerns itself with Europe, one must always bear in mind both the global setting for the banking crisis and the international nature of many of the regulatory and policy proposals for its resolution[1].

In Europe, the central banks stepped in and, effectively, became the inter-bank market. They took the banks' cash in deposit and lent banks this cash back against qualifying securities in repo transactions.

Swift action by the European central banks undoubtedly averted a catastrophe. As the Eurozone sovereign debt crisis, in some countries directly connected to the banking crisis, took over in a number of European nations, the central banks expanded their role as provider of funds to the banking system. As market concerns over sovereign solvency rose, this fed into concerns over the solvency of the local banking system, which in turn fed back into concerns over sovereign solvency in a vicious self-reinforcing loop. Only the commitment of the European Central Bank to "do whatever it takes" and the prospect of some form of "Banking Union" began to break this loop. But, in addition to a promise of doing whatever it took, the ECB also injected large sums into the Eurozone banking system, in part to shore up banks, in part to allow banks to purchase Eurozone sovereign debt and lessen the pressure on sovereign spreads. By the end of 2011, the ECB provided €489 billion to 523 banks in its first three-year LTRO. The second round followed in February 2012, totaling €529 billion and spread across 800 banks. The amount of liquidity provided by the Eurosystem alone has quadrupled since 2004 to reach over €1,2 trillion by the end of 2012[2]. Albeit in a different guise, the Bank of England also pursued and continues to pursue a very expansionary balance sheet policy.

In addition to putting money into the banks in the traditional role of banking "lender of last resort", the European central banks also brought down to, and maintained, interest rates at historically very low levels. Thus both "interest rate" and "balance sheet" policies contributed to reducing the damage to the real economy from the financial crisis.

This appears to be have been an appropriate response to the crisis and seems to have steered Europe away from a repetition of the nineteen thirties. However, these policies also allowed banks substantially to postpone another natural consequence of the bursting of an asset bubble: deleveraging.

1 In particular, the work of the Financial Stability Board under the auspices of the G20 (FSB), the Basel Committee on Banking Supervision (BCBS), The International Organization of Securities Commissions (IOSCO) and the International Monetary Fund.

2 See ECB Collateral Data – www.ecb.int/paym/coll/html/index.en.html

Profligate lending in good times normally leads to an increase in asset values. As the economic boom turns to bust, loans go bad and asset values tumble. As banks seek to repair their balance sheets, they need to recognise losses and either raise additional capital and/or reduce their lending. Usually they will do some of both. Since, usually raising capital in a crisis is not easy, a reduction in lending often wins out in the balance. This process, known as "deleveraging", is a natural result of a turn of the economic cycle. But in this crisis, the flood of central bank funds has stalled the process.

Although, from a macro-political and macro-economic point of view, these central bank interventions are welcomed, they have not changed the basic rule that banks, and those from Europe in particular, will have to deleverage. Some capital has been raised and some assets have been shed. But the shedding by European banks of assets seems to have been primarily from their US and the emerging markets' holdings and in relatively small amounts.[3] In fact, after a 2.3% fall in 2009, Eurozone bank assets *grew* by 3.5% and 4.2% in 2010 and 2011 respectively[4]. The well of "so cheap as to be nearly free" money provided by the ECB was heavily drawn upon.

This delayed deleveraging represents a crisis postponed. Today, this crisis is starting to materialise.

The new capital and liquidity requirements

In addition to the normal deleveraging that one would expect following the bursting of a credit bubble, this crisis has led policy makers and regulators to revise the capital that banks need to hold. Ever since 1988, the capital requirements of banks have been the subject of an international accord devised by the Basel Committee on Banking Supervision (BCBS). When the crisis started, bank capital was governed by the second such accord, reached in 2004 and known as Basel II.

The crisis showed that banks, despite holding the required amount of capital under Basel II, were still too fragile. The BCBS has been working on a new, tougher version of the international accord, known as Basel III[5].

Under Basel III, although the headline percentage of capital the banks generally need remains at 8%, the rules have substantially raised the amount of equity that banks need to set aside relative to risk weighted assets.[6] For banks deemed to be systemically important, the 8% number itself has been increased.

In addition, a leverage ratio has been introduced limiting the quantum of assets a bank can hold as a multiple of its capital base.

Basel III also introduced a liquidity cover ratio (LCR) requiring banks to set aside additional liquid assets to cover a one month interruption in the bank's capacity to access funding.

3 See "European bank funding and deleveraging", BIS Quarterly Review, March 2012 (www.bis.org/publ/qtrpdf/r_qt1203.pdf)

4 See "Deleveraging, Traditional versus Capital Markets Banking and the Urgent Need to Separate and Recapitalise G-SIFI Banks" , A Blundell-Wignall and P.E Atkinson, OECD Journal: Financial Market Trends, Volume 2012 Issue 1 (http://www.oecd.org/finance/financialmarkets/Deleveraging,%20Traditional%20versus%20Capital%20Markets%20Banking.pdf)

5 See www.bis.org/bcbs/basel3.htm

6 The amount of capital that must be in common equity has been increased to 82.3% of Tier 1 capital; Tier 1 capital (the more expensive better quality capital) increases from 4% (of the 8% total) to 6%; some detailed rules setting out the calculation of net weighed assets (NWAs) have been made more severe – see www.bis.org/publ/bcbs189.htm

Finally, a new net stable funding ratio (NSFR) has been introduced to promote resiliency over the longer term by creating incentives for banks to fund themselves with more stable and longer term (but more expensive) funding.

The sums at stake are not small. According to an EBA report based on the numbers for the end of 2011, European banks needed to raise at least €225 billion to cover their risk weighted assets requirements and an additional €115 billion to meet the requisite leverage targets.[7] Some recent regulatory proposals, if they were to be implemented, appear to raise these numbers even higher. [8]In addition to these additional capital requirement, the NSFR as it presently stands would require banks to raise an additional €1.4 trillion in longer term (and therefore more expensive) funding.[9]

Banks will undoubtedly raise capital. Some of this will be in the form of profit retention and some will need to be in the form of new equity issuance (including potentially the new forms of contingent equity). However, such potential issuance is running into considerable head-winds. Unicredit's €7.5billlion capital raising saw its share price drop (albeit temporarily) by 45%. There are good reasons to believe that traditional equity raising by banks could be diminished for a generation:

(v) *dilution*: as the Unicredit example showed, since the amounts of capital that would be required to be raised are highly dilutive, it is going to meet with strong existing shareholder resistance.

(vi) *uncertainty*: the markets remain uncertain as to the future health of banks and the state of the economy. Are all the banking problems really behind us? Realistically, banks' problems will not be over until the European economy exits recession and the banks recapitalize. But the economy will not improve and the banks will not be able to recapitalize until their problems are surmounted. This is a "chicken and egg" situation.

(vii) *business model*: In 2007, global average ROE for banks was 13.6 per cent. In 2011, it had fallen to 7.6 per cent. The European situation is even more dramatic. Whereas US banks had an average ROE of 7 per cent in 2011, the ROE of European banks was zero. Even if one attributes much of that fall to the serious banking and economic crisis of some peripheral countries, ROE in 2011 for European banks excluding the peripherals (Greece, Italy, Ireland, Portugal and Spain) only averaged 5 per cent. [10]. This is substantially below the present cost of capital for banking institutions. But even after the present crisis has abated, we know that bank returns are extremely unlikely to return to their pre-crisis levels. This is the result of the requirements for more capital (and liquidity buffers), the prohibition for banks to undertake some of the riskier trading activities in which they indulged before 2008, the possible separation of retail banks from investment

7 See "Results of the Basel III monitoring exercise based on data as of 31.12.2011", EBA, September 2012 (http://eba.europa.eu/cebs/media/publications/other%20publications/qis/eba-bs-2012-xxx--public-isg-report-basel-iii-monitoring-.pdf). In fact, on the more conservative approach to "capital conservation buffers" favoured by some policy makers, the capital requirement for RWAs jumps from €225 billion to €478 billion

8 It has been estimated, for example, that the implementation of the preliminary BCBS Basel III proposal on securitisation could require European banks to raise a further €32 billion in capital

9 EBA, September 21012 , already cited

10 See "The Triple Transformation – achieving a sustainable business model", 2nd McKinsey Annual Review on the Banking Industry, October 2012 (www.mckinsey.com)

banks [11] and a likely very low interest environment. The latter is particularly meaningful if banks' profits need to shift from fee generation and trading profits to a more traditional banking model of borrowing and lending. Yet, although a significant decline in ROE is inevitable, it remains very unclear how steep such decline will be in the medium to long term. This makes buying bank stock a very uncertain proposition.

(viii) *no more "too big to fail":* following the crisis, one of the clearly expressed desires of policy makers the world over is the need to move away from the "too big to fail" trap where bank profits in good times are privatized but bank losses are socialized. Of course, it can be argued that bank equity is always at risk even in a rescued financial institution. Nevertheless, in the "too big to fail" era, banks benefited from many forms of support from governments and regulators who knew that, if a difficult situation was not brought under control soon, a costly rescue would be the ultimate outcome. In the new era of greater willingness to see banks fail, how much less governmental and institutional support can even equity holders expect? Again, uncertainty makes buying new bank capital issues a difficult proposition.

With all these issues and many banks trading at below book value, banks are clearly now looking at shrinking their books to meet the new Basel III rules. In a recent survey of European banks, 71% stated that regulatory rules on capital were the primary cause of the future deleveraging. The second most cited cause was the new liquidity rules.[12]

How substantial is this problem?

So, how large is the issue confronting the European economy?

1. Bank deleveraging

   According to the IMF, deleveraging of European banks will be around 7% of their balance sheet – namely, US$2.6 trillion (as a base case with a top range of US$3.8 trillion)[13]. This number is confirmed by the banks surveyed by Deloitte[14], which estimated a decrease of just under 7.5% - equivalent to €2 trillion. Considering the very substantial increase in the size of banks' balance sheet since 2001 and the depth of the crisis, a 7% deleveraging appears to be very optimistic. As losses eat into existing bank capital, the final deleveraging could be meaningfully greater.

   Another aspect of this process that is worth paying attention to is timing. Almost three quarters of the banks in the Deloittes survey (71%) anticipated that the deleveraging would take five years or more from 2012.

11 See the conclusions in the final report of the High-level Expert Group on Reforming the EU Banking Sector (http://ec.europa.eu/internal_market/bank/docs/high-level_expert_group/liikanen-report/final_report_en.pdf) or the United Kingdom Government's White Paper on Banking Reform (http://www.hm-treasury.gov.uk/d/whitepaper_banking_reform_140512.pdf)

12 See "Capital gain, asset loss –European bank deleveraging", Deloitte Bank Survey 2012 (www.deloitte.com)

13 See "Global Financial Stability Report", International Monetary Fund, October 2012 (http://www.imf.org/external/pubs/ft/gfsr/2012/02/pdf/text.pdf)

14 Deloitte Bank Survey – already cited

2. LCR's

In their 2012 report, the EBA calculated that the amount of high quality assets that would have to be set aside by European banks to meet the liquidity requirements of the LCR stood at €1.17 trillion[15]. This was not the total amount of LCR buffers mandated by Basel III but the *additional* amounts that still needed to be set aside.

In the new rules regarding the LCR and published in January 2013, some technical changes were introduced to certain assumptions, such as run off rates. These changes will most probably result in a smaller number for the missing LCR requirements, but are not likely dramatically to alter the outcome. Even if the new rules were to reduce the required LCR's by 15%, we are still looking at very close to a missing trillion.[16]

Under the Basel III LCR rules, 60% of the LCR buffers need to be composed of what are known as "Level 1 assets" – namely, cash with the central bank or public sector, sovereign or quasi-sovereign debt.

In other words, even on a conservative estimate, the LCR's will require banks to freeze another €600 billion. In the words of the EBA's Bank Stakeholder's Group, "the LCR would have the effect of crowding out productive investments and sterilize [sic] €1 trillion of liquidity out of the real European economy"[17].

3. What about growth?

New capital and liquidity regulations will constrain the ability of banks to fund the real economy. This constraint will get tighter when a recovery takes place as the European economy will need to fund new businesses, the expansion of existing businesses and new confidence amongst consumers will lead to more demand for borrowing on their part.

In a survey published in May 2012[18], Standard & Poor's estimated that Europe will require an additional €1.6 trillion to €1.9 trillion to finance any kind of growth between 2012 and 2016.

Even this number may be a large underestimate as it only focuses on growth *per se* and does not appear to account for the very substantial investments in long-term infrastructure needed for Europe to maintain competitiveness with emerging economies.

15 EBA Basel III monitoring exercise – already cited

16 In the anticipation of new figures for the amount required to be set aside under the new proposed rules for LCR, the 15% remains a very broad and uncertain estimate

17 See "New Bank Liquidity Rules: Dangers Ahead", a position paper by EBA's Banking Stakeholder Group, October 2012 (http://www.eba.europa.eu/Aboutus/Organisation/Banking-Stakeholder-Group.aspx)

18 See "The Credit Overhang – Is a $46 trillion perfect storm brewing?", Standard and Poor's, May 2012 (http://www.standardandpoors.com/spf/upload/Ratings_EMEA/PerfectStorm9-May-12.pdf?elq=65067c2115c7423aadeb63d1f938e401)

A generational choice

Even using conservative figures, the addition of a €2 trillion deleveraging, €600 billion LCR "strerilisation" and a €1.6 trillion financing need, leaves Europe facing over €4 trillion of "missing" funding.

This figure should be understood as a very best case scenario, taking – as it does – the base case of the IMF, the lowest estimate for the other components and no account of necessary infrastructural investment.

Furthermore, we must bear in mind that the longer the European economic crisis endures, the more losses will erode bank capital and profit contractions will reduce the amounts available to rebuild this capital from internal sources. This could easily widen further the finance gap by putting additional pressure on banks to deleverage, creating a dangerous negative feedback loop.

To add to this picture, the time aspect needs to be considered. Of course, a very fast deleveraging caused by a deliberate brutal contraction of bank lending and an accelerated timetable for the proposed new regulatory rules could cause a catastrophic implosion of the European economy. The lessons of history – whether from the monetary contraction in the United States following the stock market crash of 1929 or the fiscal consolidation of the Bruning government in Germany in 1932 – are clear in this regard. This probably explains the welcome extension of the various regulatory timetables by policy makers. (For example, the new Basel III timetable now envisages the completion of the LCR buffers by 2019.)

However, with a large majority of banks estimating five years or more to complete their deleveraging, the ramping up of the capital and liquidity requirements until 2019 and the financing needs of the European real economy until 2016 (as estimated by Standard & Poor's), the risk of a sudden and dangerous sharp shock is being replaced by the real possibility of a long period of stagnation.

In other words, after having endured a crisis that began in 2007, any prospect for a return to growth in Europe will take place in an environment where, for at least five years to come, at the very least €4 trillion of necessary oxygen is being steadily taken out of the room.

This is why Europe is now facing a generational choice. There are only three conceivable options before us and only two of these are realistic.

First, the missing finance can be provided by the public sector. This though is not realistic bearing in mind the fiscal consolidation taking place in Europe.

Secondly, the missing finance can simply continue to go missing. This could be called the "Japanese Option" where no meaningful growth conditions return to Europe until at least 2017. With real growth itself lagging a couple of years behind the conditions for its occurrence, we will be contemplating a low to no growth period stretching from 2007 to 2019 – a lost generation.

Thirdly, all or some of the missing finance can be channeled to the real European economy from non-governmental and non-bank sources: in other words from the capital markets.

CAPITAL MARKETS FINANCE

The capital market alternative

Traditionally, Europe has had a much greater reliance on banks to fund its economy. For example, the ratios of securitised loans and corporate bonds to total financing volumes in Europe in 2011 was 19 per cent, compared to 64 per cent in the United States[19]. This indicates the scale of the problem faced by the continent. With bank financing so prevalent and capital market alternatives comparatively underdeveloped, the impact of bank deleveraging is a greater concern than it would be in the United States. One should also bear in mind that the bank based nature of the European financial system – especially in the Eurozone – is deeply ingrained in legal and institutional factors which can change only very slowly.

However, the very depth of the under-representation of the capital markets is also ground for cautious optimism as it indicates a possible way out of the Japanese Option. In fact, the historically high overall personal and household savings rates in Europe indicate that there is a substantial pool of capital that presently goes to bank deposits but would be available to the capital markets and, from there, to the real economy – if appropriate, safe and robust financing channels were to be built (or rebuilt) to convey these funds, thus "short-circuiting" the bank capital constraints previously mentioned.

The opportunities and hurdles to the growth of capital market funding for the real economy in Europe are not evenly spread across all sectors. Large corporations with international reach can already access the capital markets. They have done so for decades and have strongly increased their activities in this field since the crisis. European investment grade corporate issuance reached its highest level ever in 2009, with its second highest (at $483 billion) in 2012.[20]

However, mid-caps and SME's, whose role as generators of employment and innovation is key, have almost no access to the capital markets[21]. As for consumers, they have none. The challenge is therefore to see if viable financial channels can be created and maintained to move capital market funds to these two sectors.

For the sake of clarity, when we refer to "capital markets" or "capital market participants" we extend the definition not only to existing and well known sources of funds such as insurance companies, pension funds and various forms of investment funds (including sovereign wealth funds), but also to potential new sources of funds such as those provided by the treasuries of industrial corporations. In effect, we use the term to encompass all possible forms of meaningful non-bank debt funding.

19 2nd McKinsey Annual Review – already cited

20 See "Corporate bond issuance in Europe – Where do we stand and where are we heading?", Deutsche Bank, DB Research, January 2013 (http://www.dbresearch.com)

21 To underline how important SMEs are to the European economy, a 2011 report funded by the European Commission found that, in Europe, SMEs account for 58% of GDP and 67% of non-finance employment. Between 2002 and 2010, they also provided 85% of all new jobs in the EU. See "Do SMEs create more and better jobs", EIM, J. de Kok and others, November 2011 (http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/supporting-documents/2012/do-smes-create-more-and-better-jobs_en.pdf)

Hurdles to capital market flows to SME's and consumers

A number of ideas have been floated to fund mid-caps and SME's and, to a lesser extent, consumers directly from non-banks. Amongst these are supply chain finance, lending exchanges, B2B platforms, crowd funding, peer-to-peer funding and the creation of a private placement market in Europe. These alternatives are all worth investigating and promoting. It is certainly clear that there is no single "silver bullet" to the deleveraging challenge and, in time, some or all of these alternative funding channels may come play a key role. However, one should not overlook some of the very real hurdles many of these alternatives will need to overcome if they are to be successful.

(i) *risk appetite*:

Most capital market participants have a high risk aversion. Of course, all lending involves an element of risk, however minute. But there is a strong difference between a "zero loss tolerance" mindset which is typical of the majority of debt capital market investors and a "base case loss" mindset which is found in banks in divisions that lend to smaller, granular borrower groups. Most capital market players such as insurance companies, pension funds and most retail funds have credit departments whose jobs it is to select investments that will not suffer default. Obviously, they are not always successful. But crucially, it is not their task to calculate how much they expect to lose on any given portfolio under various stress scenarios[22]. This is precisely what bank credit and underwriting departments do. Of course, no bank lends to any particular SME believing it will default and every credit officer underwrites each loan in the earnest belief that this particular individual borrower - whether borrowing for a car loan, a house purchase or SME working capital - will repay in full. But each bank knows that, even in a very benign economic environment, statistically, some loans will go bad. For some asset classes, such as credit cards, the whole science of lending is accurately to calculate the overall loss on the book.

For capital market investors to lend directly to consumers or SME's would require them to accept losses in unpredictable quanta as a normal part of their business. This is equally true of the purchase of pools of whole loans from banks. This would represent a very substantial cultural shift. It remains unclear that investors have, globally as a class, either the incentive or the inclination to make such a shift.

It is often said that, in the markets, everything is merely a matter of price and that there is always a price at which you can sell anything. Even in theory, this is not always correct. But in the case we are examining, we are looking at a deep cultural shift which, if it occurred, would take many debt capital market participants into areas and ways of thinking where they have so far felt very uncomfortable. The additional price that would have to be offered to trigger this cultural shift in a large number of investors is very likely to be much greater than would be suggested by simply looking at the spread that debt capital market investors who are already culturally comfortable with this type of risk are willing

[22] There are, of course, some capital market participants who do not operate on this "zero loss tolerance" mindset, such as private equity firms, venture capital firms and a number of hedge funds. However, they represent a very small part of the overall available investment potential in the global debt capital markets.

to accept. In other words, just because a hedge fund is willing to invest in a pool of SME loans at X per cent over LIBOR does not mean that one can induce conservative insurance companies and pension funds to invest at anywhere near the same return. It is not at all clear that a price could be set at any vaguely reasonable level that would both bring meaningful numbers of traditional debt capital market investors to direct lending and be acceptable to mid-caps, SMEs and consumers seeking to borrow.

Even, if a large base of capital market investors could be found who were willing to make this cultural leap, they would have to invest in a new credit infrastructure. They would have to hire new teams of analysts. They would also have to re-calibrate a large part of their business model to account for the new environment of inevitable yet fluctuating losses. Experiences over the years with such transitions, such as industrial corporations owning "in-house" banks, suggest that these cultural shifts are difficult and not always successful. Also, being new ventures by otherwise long established players, when the economic cycle reverses itself and lending made in good times turn into unexpected losses, there is a substantial risk that the venture is perceived as a failed experiment and the player withdraws from the activity.

Although the direct lending by established capital market investors to SMEs and even consumers should not be discouraged and may yet come to play an important role, nevertheless such a development is culturally difficult, its size highly uncertain and its resilience in the face of the economic cycle unproven.

Financial channels that allowed debt capital market investors to invest whilst maintaining their existing culture of "zero loss tolerance" would have the best chances of mobilizing substantial funds for the real economy in the shortest time.

(ii) *Infrastructural costs*

Lending in small amounts to a larger number of borrowers requires a technological and human infrastructure to identify borrowers, filter them, receive their applications, do the credit underwriting and advance the funds. It requires a further infrastructure to collect data on borrower performance, identify delinquencies and recover unpaid amounts.

On the credit underwriting front, the internet has lowered the cost of this infrastructure to some extent. But we would also query, bearing in mind the poor results of some model driven lending practices, whether we should be encouraging even more distance - geographical and economic- between borrowers and lenders. Also, especially in SME lending, model driven lending needs to be very conservative in its assumptions as it is easily "gamed" once the model parameters are known. A conservative model could well limit access to funding for otherwise good SME credits.

Such a lending and collection infrastructure (with its attendant information gathering processes) is costly and is only likely to pay dividends if there are economies of scale. But once you reach a size of operation that creates economies of scale it can become difficult to tell the resulting entity from a traditional bank. The result can often be a "shadow bank". We tend to agree with the conclusions of the Financial Stability Board that non-banks performing banking activities should, all other things being equal, be required to hold capital

calculated in the same way as banking institutions. Arguably, some of these shadow banks could have better access to capital than traditional banks, but such arbitrage may not be sustainable in the long term.

Most capital market investors willing to lend to SME's and consumers will therefore most likely seek to delegate the lending and collecting infrastructure to other specialist institutions. However there already are such institutions available: banks[23]. This type of delegation, as we will see, is precisely what already occurs with securitisation.

(iii*) Liquidity*

Most established capital market investors value liquidity: the capacity to sell easily their assets if their views or strategy change. For some capital market investors such as fund managers who provide their investors the capacity to withdraw their investment at relatively short notice, liquidity is essential. In bad or uncertain times, for these managers to invest in non-liquid assets is courting insolvency. This desire for liquid assets is not in contradiction with being a long-term investor. An insurance company may well wish and intend to be a long-term investor. But it will still want the option to sell its position. The longer term the investment, the greater the need to know you can sell it since, as the time horizon stretches out, the more uncertain the outcome. To lend directly long-term to mortgage borrowers or mid-caps and SMEs without a relatively easy exit is, of course, possible. This is true even for the longer term lending that mid-caps and SME's have indicated they wish to have. But again, it would require a very substantial cultural change for which it is not clear we can see the incentive or the inclination in most existing capital market players.

Undoubtedly, a price could be set at which such change would become a compelling proposition for even the most culturally conservative capital market investor. However, the rise in interest rates charged to the ultimate borrower is likely to be very substantial. It is doubtful that such "liquidity premium" could even be met by most SME's and/or consumers.

Again, financial channels that used tradable and traded instruments would have an advantage over those that did not.

(iv) Global reach

The last few decades have seen substantial imbalances in global financial flows, resulting in large part from current account imbalances between the developed economies and the emerging economies. In addition, as we have seen, the United States has a substantial pool of capital outside the banking system that seeks capital market opportunities. When funding long-term growth, Europe should seek to the greatest extent possible, consistent with long term strategic safety, to have access to these extra-European sources of funds.

Cross-border lending by risk averse capital market participants operates through global and recognised benchmarking tools: global scale CRA ratings,

23 Throughout this paper, the word "bank" is used to indicate financial institutions that take deposits in some form or another and lend generally to the corporate and/or retail public providing some banking type of intermediation. This will therefore include financial institutions that may not, as a technical matter, hold a "banking" license (such as savings institutions, credit unions, etc…)

internationally recognised accounting standards, internationally understood disclosure standards (whether for debt or equity). Such internationally recognised benchmarks help capital market investors to compare potential investments across markets. They also lessen (or are meant to lessen) the need for specific, idiosyncratic and local knowledge. If you invest in a senior AAA rated publicly quoted securitisation bond backed by SME loans from a European nation, you need to understand the relevant CRA's criteria for SME securitisations and focus on "tail risk". You should be able to rely on the international nature of those criteria to compare them to other opportunities for investment and rely on the recognised disclosure standards to do your own credit analysis. But if you are investing directly in the same pool of SME loans – either through lending or through loan purchases – you need to have a much greater understanding of the specific local situation so as to calculate your base case loss, your downside loss and any idiosyncratic risks created by the underwriting process. Without this you cannot assess the value of your investment. To obtain such understanding you need to have extensive local knowledge that must be obtained - as a non-European investor - from the kind of investment in skills that can only be justified if you are thinking of committing funds in the billions of Euros.

Investment opportunities that came in the form of liquid instruments benchmarked on internationally recognised standard of disclosure and analysis would minimize the need for deep knowledge of local idiosyncratic risks. These investments would be more capable of drawing funds from outside Europe to fund European growth at a reasonable cost. This is already true of large corporations that can access the international capital markets but more difficult to achieve for mid-caps, SME's and any type of consumer lending

SECURITISATION

The role of securitisation for capital market investors

Of all the ways in which it is possible to open up financing channels to convey funds from capital market investors to the mid-cap, SME and consumer borrowers, securitisation seems most capable of overcoming the hurdles that have been identified. This is not to suggest securitisation is the only such channel or could even aspire to being the sole way in which these borrowers obtain non-bank funding. There is indeed great systemic benefit to having a multiplicity of financing channels able to provide support to each other. However, securitisation does seem to have many characteristics that do make it a versatile and powerful funding channel and able to be a key component of any attempt to bridge the European funding gap.

In a securitisation, loans that were originally made by a financial institution – often, but not always, a bank – are used to back the issuance of bonds. The bonds do not all have the same priority in their claim on these loans. Some bonds (the senior bonds) have the first claim on the proceeds of all the loans in the securitised pool. Junior bonds have a second claim – they get paid after the senior bonds. Another way to look at this is that losses on the loans are "allocated" first to the junior bondholder who therefore take the greater risk. Then, and only if the losses on the loans are greater than the amount of the junior notes, will the senior notes suffer a loss. This process is known as "credit tranching".

Because the senior bonds can get as much support as any investor may wish, it is possible to create securitisation bonds that appeal to the most risk averse capital market lenders. The junior bonds, that are much smaller in amount, can be sold to other capital market investors who have greater risk appetite.

Most loans that are securitised are originally made by a bank. After the securitisation, the bank continues to manage these loans. The securitisation process allows the capital market investors to "delegate" the credit underwriting, identification of the borrowers, moving of the funds, maintenance of lending records and collection of funds to institutions that have already created and paid for the infrastructure to do so. This also means that there is no time delay resulting from capital market investors (or new entities to which capital market investors wish to delegate the tasks) having to build the new lending and servicing infrastructures that would otherwise be needed.

Securitisation also spans the short term/long term and liquid/illiquid dichotomies. Almost all securitisation are "match funded". That is, the securitisation bonds only repay principal when the underlying securitised loans repay principal. A securitisation backed by twenty year mortgages only pays back when those mortgages pay back. As such, securitisations do not create maturity transformations and therefore allow long term funding[24]. Yet, because they are in the form of a tradable bond, they allow an investor to sell the bond before its maturity. In this way they offer the possibility of liquidity to the capital market investor whilst allowing long term funding for the ultimate borrowers.

24 Certain kinds of securitisations do create maturity transformations. These are the structured investment vehicles (SIVs) and the asset backed commercial paper conduits (ABCP conduits). The SIVs no longer exist as most went insolvent in the crisis and, for financial, technical and regulatory reasons, will not be able to return. The ABCP conduits are a hybrid product since they are backed by bank liquidity lines. They are not really the subject of this paper and should be analysed separately.

Also, because they are rated listed bonds, securitisation bonds are subject to the kind of global benchmarking that can attract global investors. Because of credit tranching, they are particularly apt to attract risk averse global capital market investors.

Finally, but not least, a reference has already been made to the myriad of legal and institutional factors that ground Europe's bank based financial system. Changing these, as has already been stated, will take time. Securitisation, as a financing channel that uses the existing bank lending structures, is a way of softening the borders between bank based and market based intermediation. As a bridge between the existing European bank based system and a US style capital market system, it provides an evolutionary path rather than the revolutionary, and therefore riskier and more unpredictable, path of an absolute shift from one model to the other.

The role of securitisation for banks

The way securitisation can help overcome the challenge facing the European economy can also be told from the banks' point of view. It is the same story, just told through the eyes of a different participant.

This represents the double aspect of securitisation: for capital market investors such as funds, because the securitised loans are legally transferred away from a bank that did the original lending, a securitisation investment is equivalent to buying the loan. The future fate of the bank is not materially relevant to whether the investor gets interest and principal back. So a capital market investor sees a securitisation as a direct investment in the underlying loan: a mortgage, a car loan or an SME financing. It is admittedly a special kind of direct investment in that it has the double benefit of (i) a credit tranching so that only the senior risk is taken and (ii) various regulatory provisions, collectively known as "skin in the game", which require the bank to hold some portion of the risk to protect against a lowering of loan underwriting criteria that can result from the "originate to distribute" model.[25]This makes it a more secure and solid form of direct investment. But it nevertheless continues to be seen by the capital market investor as an investment in the underlying asset and not a secured loan to a bank.

But the bank that makes the original loan continues to service that loan. Usually, the interest on the loan is greater than the interest that is paid to the securitisation investors. This means the bank continues to collect a "spread" on the lending, even after securitisation. So the banks see securitisation as a form of funding for what they consider to be "their book".

These two aspects – direct investment for the capital market participant, funding tool for the bank – are not contradictory. They simply reflect the different perceptions of the purpose of a contract to the different contracting parties.

This brings us back to our deleveraging story.

Banks have five ways to fund themselves: equity, deposits, unsecured debt, covered bonds and securitisation.

Equity is presently a challenge for the reasons already mentioned.

25 In European law, this "skin in the game" requirement can be found in Article 122a of the Banking Consolidation Directive - Directive 2006/48/EC (http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2006L0048:20100330:EN:PDF (as amended)).

We have also understood that the primary driver the banks cite for the deleveraging pressure is capital requirements and the new liquidity rules.

Of the four remaining funding sources, neither deposits, unsecured borrowings nor covered bonds provide any relief from the requirement to raise capital. Once a bank uses funds raised through these channels to lend to their customers, those loans require capital to be set aside under the Basel rules.

Only securitisation, by transferring these loans away from the bank, can also produce a relief from the capital rules. Since the bank has passed the bulk of the risk of these loans to new capital market participants, it needs to set smaller amounts of capital aside to cover possible future losses[26].

The role of securitisation for the public sector

Because of credit tranching, securitisation can also be a useful tool for public sector involvement, especially in mid-cap and SME funding as well as, potentially, for infrastructure funding.

By buying the junior bonds of a mid-cap or SME securitisation, usually the more difficult to place with investors, public sector entities can support this type of lending.[27] This also has a counter-cyclical benefit. During the upward part of the economic cycle, such junior bonds can usually find capital market investors. But since they are the first to take losses during a crisis, it becomes more difficult to place such bonds in the market during the downward part of the cycle. By buying more such junior bonds during a recession, public sector investors can smooth the funding cycle of mid-caps and SME's, mitigating the "boom and bust" situation many face in their access to credit.

Also, by fixing the interest rates on the junior bonds at rates that may not reflect international capital market rates, public sector investors have a tool to reduce the cost of funds of mid-caps and SME's. This is clearly a form of subsidy and needs to take into account state aid rules. However, the existence of such a tool, whether it is used or not, would increase the policy makers' range of options to sustain funding for mid-caps and SME's in Europe.

Finally, public sector lenders themselves can use securitisation to fund financial lending they wish to make. This can allow the public sector to advance funds, for example, to SME's and infrastructure projects directly but find capital market investors for the bulk of that financing. This, in turn, can free more capacity for additional infrastructural or SME lending by the public sector.

26 This paper does not wish to minimize the complex issues surrounding capital relief for bank securitisations. There are many ways banks can retain risk even after securitising loans and new rules regarding "skin in the game" have also changed the landscape. However, some capital relief can be obtained if certain rules are followed.

27 In Europe the European Investment Bank and the European Investment Fund perform this task. In countries such as Germany, public sector involvement in securitisation to assist certain economic activities also exist, such as the "Provide" and "Comfort" securitisation programs sponsored by KfW

DEALING WITH THE PAST

But any paper dealing with securitisation as a finance channel must recognise the challenging past of some securitisations. There is little need to remind anyone of the debacle of the US sub-prime market, the insolvencies of the structured investment vehicles (the "SIVs") or the devastation caused by CDO squared.

At the same time, support for a strong and resilient securitisation market is coming from many quarters amongst policy makers and regulators.[28]

However, the watchwords here are not "forgive and forget" but "learn and prevent". Whereas some securitisations performed incredibly badly during the crisis, others performed incredibly well.[29] Five years on, we now have the perspective that allows us to understand why what went wrong went wrong and why what went right went right.

The conclusion set out here are not controversial and are most probably shared by most regulators, policy makers, academics and market participants. There are four separate components to the problems encountered by some securitisations:

(i) *"originate to distribute":* when financial institutions based their entire business model on originating loans and then "selling" them through securitisations they lost interest in these loans' long term future. Consequently, their underwriting criteria collapsed. This lies behind the US sub-prime debacle.

(ii) *leverage*: when securitisations contained very high levels of leverage so that very small credit problems with the underlying securitised loans could produce large defaults, the securitisations performed badly in stressed situations. This lies behind the woeful performance of CDOs of ABS, CDO squared, CDO cubed etc…

(iii) *maturity transformation*: although the vast majority of securitisations are match funded (or, as is sometimes expressed, contain "self-liquidating" assets), some contained a refinancing risk: the securitisation could only pay back if one or more loans could be refinanced in the market within short windows of time. When market liquidity evaporated in 2008/2009, these maturity transforming securitisations faced defaults. This lies behind the problems of SIVs and commercial real estate mortgage backed securities (CMBS).

(iv) *transparency*: the lack of transparency, whether resulting from over-complexity (eg CDO cubed) or from poor reporting, caused liquidity to become restricted in stressed conditions. This generated mark-to-market losses that had serious systemic implications for the financial system.

28 For example, in a recent report, IOSCO stated that: "Securitisation, when functioning properly, is a valuable financing technique contributing to economic growth and an efficient means of diversifying risk". See "Global Developments in Securitisation Regulation", IOSCO, November 2012 (http://www.iosco.org/library/pubdocs/pdf/IOSCOPD394.pdf)

29 Five years into the worse economic crisis since the war, the senior bonds of European residential mortgage securitisation and other consumer securitisation have still suffered no losses whatsoever

Transparency is a general issue that is being dealt with by new regulatory rules and market and policy maker pressure. Of the remaining three issues, securitisations that did not partake of any of these components performed extremely well and in line with expectations. This is the type of securitisation that is needed to fund the European economy: a securitisation model that has been tested during the most severe crisis since the war and yet has continued to perform its role as a robust and secure funding channel.

CONCLUSIONS

Europe is facing in the coming years an economic challenge that is unprecedented since the first half of the 20th century. To meet this challenge, it will need to open up new channels of financing to convey capital markets funds to European borrowers.

Whereas large corporations should find few impediments to accessing these capital market funds, SME's and mid-caps – the drivers of European employment – and consumers – one of the drivers of growth and prosperity - cannot readily do so.

Although many different alternative channels of finance are being discussed and all have potential, securitisation appears to be the only one that was tested and has the potential to scale up to the size of the needs of the continent. Clearly, securitisation alone will not and cannot bridge a multi-trillion Euro funding gap. However, even if securitisation is not the only answer, it appears that it will need to part of any successful and comprehensive answer.

Yet, we cannot ignore that some securitisation products have had very bad histories. To help overcome the long term funding gap, Europe requires the appropriate policy balance which encourages strong and resilient securitisation and avoids an undifferentiated punitive approach to securitisation as a channel of finance.

Prime Collateralised Securities

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