



## How to fix European banking ... and why it matters

***An introduction from David Folkerts-Landau, Head of Research and Group Chief Economist***

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The performance of the Eurozone economy is inextricably linked to the health of its banking system. This banking system, the largest in the world, provides three-quarters of corporate and nine-tenths of household financing, double and triple the proportion seen in the US. Such a heavy reliance on banks means the Eurozone economy is likely to stagnate unless its banks can build robust balance sheets, earn a competitive return on equity, and generate adequate capital to take on credit risk and market risk to support faster growth and innovation.

Today, the profitability of European banks is relentlessly being pushed down by three forces. First, stronger banks with surplus deposits are being taxed by a historically unprecedented policy experiment of negative central bank deposit rates. Second, banks in some peripheral countries are heavily reliant on direct long-term loan financing from the ECB and remain burdened with a large stock of non-performing loans. Third, banks across the Eurozone have to cope with an attitude of “full speed ahead, damn the torpedoes” in the implementation of a brand new, strongly pro-cyclical, regulatory and supervisory rulebook.

The belief that negative interest rates would ultimately force banks to extend more credit and that they would incentivise companies and households to borrow more for productive purposes has led the ECB to continue to hold on to its negative interest rate policy. This is despite evidence that the smell of panic which surrounds a negative rates policy is undermining the confidence of investors and savers. This policy is now penalising the stronger European banks by charging them about €8bn (40bps on the €2trn of deposits) per annum. At the same time, US banks receive about \$40bn (2.4% on \$1.65 trn) on their excess reserves. Indeed, negative interest rates have failed to restore the Eurozone to sustainable growth, even while being reinforced by the ECB’s historically unprecedented volume of asset purchases and its massive direct targeted lending to weaker banks. At a time when the US economy is expected to clock in at near 2.5% growth for 2019, the Eurozone is experiencing a rapid deterioration of economic performance and a return to positive rates will be as elusive as it has been in Japan.

While US policy makers look to flexibly optimise the post-crisis rulebook, the ECB and the EU continue to implement a stringent new regulatory and supervisory system, the Single Supervisory Mechanism and Single Resolution Mechanism,



as well as the Banking Resolution and Recovery Directive. In theory the approach embodied in these rule books and directives has much to commend itself. But its implementation along an ambitious timeline is putting a large burden on the profitability of the banking system at a time when banks and economies in the Eurozone are already under great stress. At the same time, the relatively minor political compromises that will need to be made to achieve progress on completing the European Banking Union and the EU Capital Markets Union, which will create a larger and more efficient single banking market, remain out of reach.

All these factors – punitively negative interest rates, the aggressive implementation of a new regulatory regime, and the failure to create a unified home market – are eviscerating bank profitability and market capitalisations while keeping banks' financing costs elevated. Suffice to say, since the introduction of negative interest rates European banks have lost two-fifths of their market value, while US banks have gained the same amount. Such a lack of profitability has impaired the ability of Eurozone banks to reduce their non-performing loan books at a faster pace, and made it difficult to grow capital organically and strengthen their balance sheets. It has also prevented peripheral banks from reducing their reliance on the 'doom loop' sovereign carry trade, and inhibited the shift of credit from old and declining sectors to innovative and growing ones. In short, it is inimical to productivity, growth, and prosperity and ultimately poses substantial risks to taxpayers.

Finally, at this point there should be serious doubts as to whether, under these conditions, European banks will be able to compete internationally with US institutions. If the current trend continues, Europe may indeed end up sacrificing another strategic sector to US competitors.

This paper takes a careful look at the European banking system and suggests a number of remedies to improve the sustainability of its returns for the good of the economy and taxpayers.

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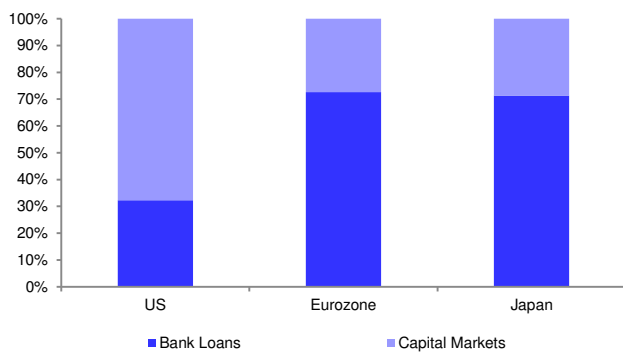
## Europe must avoid becoming Japan

Europe's banking system – the largest in the world – is at a critical junction. Along one path lies a US-style system where strong banks support small businesses, households and corporates. Down the other path lies Japanese-style malaise where banks struggle with profitability and the real economy suffers as a result.

Europe is already a few steps down the Japanese path and this report will detail five ways to set European banking on the correct course. It is vital that investors, regulators, and policymakers take note. If not, Europe will likely experience the same economic pain as has Japan over the last two decades. Europe can ill afford to replicate this experience given the economy is already slowing.

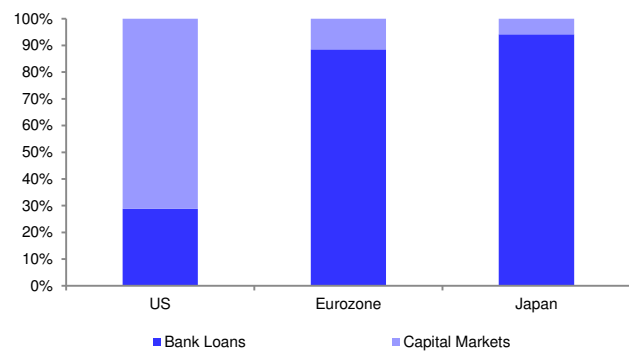
The banking systems of Europe and Japan already exhibit a startling symmetry. First, households and corporates have a similar level of over-reliance on banks. Corporations in Europe and Japan tap banks for three-quarters of their financing requirements while the regions' households rely on them for nine-tenths of funding needs. That is double and triple the proportion seen in the US, respectively.

Figure 1: Eurozone corporates remain heavily reliant on bank funding



Source: Deutsche Bank, ECB, FED, BOJ, SIFMA, AFME

Figure 2: Eurozone households even more so



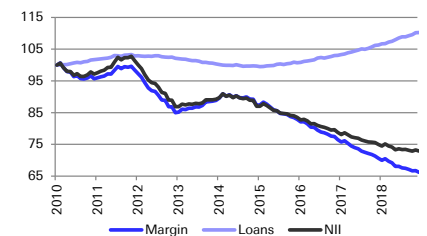
Source: Deutsche Bank, ECB, FED, BOJ, SIFMA, AFME

Yet although banks in Europe and Japan are leaned upon so heavily to support the real economy, falling returns leave them less able to support the sectors of the economy that need it the most. This is a serious problem, particularly as small and medium enterprises employ two-thirds of the European workforce, whereas equivalent US firms employ only about half the American workforce.

The importance of sustainable profitability within the banking system was spelled out by Danièle Nouy who recently wrote, "a sound banking system is essential to foster economic growth and provide adequate funding for the economy." She also reiterated that, "low profitability weakens a bank's ability to accumulate capital" while drawing the connection between a sustainable business and the safety and soundness of the system.

The increasing gap in profitability between European and US banks is a function of declining customer margins and, increasingly, the ECB's ongoing negative rate environment. This has, in effect, imposed a tax worth about €8bn on the European banking industry (based on €2tn of excess reserves) and compares with the 2.4 per cent interest rate on excess reserves available in the US banking system. The

Figure 3: Eurozone customer NII components since 2010



Source: Deutsche Bank estimates. Customer NII = NII derived from loans and deposits assuming 100% LDR



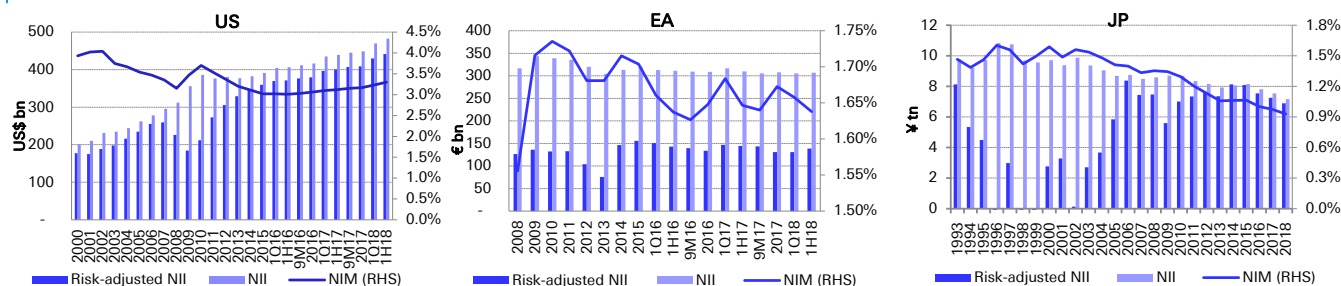
theoretical opportunity cost of not being able to pass negative rates to household customers, based on overnight deposits, is €16bn, or five per cent of system net interest income and about ten per cent of pre-tax profit.

The unintended consequence is that it acts as a fiscal transfer mechanism and redistributes cash from core Europe to the periphery. The periphery banking system is also the primary beneficiary of the €700bn TLTRO programme which can remunerate borrowing at 40 basis points.

Ultra-loose monetary policy is a good example of how European policymakers are copying the Japanese. While it is true that low rates mean lower provisions and higher capital gains, these effects are temporary while the compression of net interest margins is ongoing. Indeed, persistent low rates in Japan have led to net interest margins falling from 1.5 per cent in 2000 to 0.9 per cent now. In this regard, Europe is already heading down the Japanese path. While European banking margins have flat-lined at 1.65 per cent since the financial crisis, persistent low rates could significantly impact margins over time. Of course, lower margins can be good for an economy up to a certain point. But at low levels, it damages the credit transmission mechanism.

In contrast, US banks have maintained healthy margins of between three and four per cent consistently over the last two decades. Of course, US banks have benefited from healthy loan growth and this, too, could help European banks. However, to offset the impact of the current negative rates, European loan growth would have to grow between three to four per cent annually – an acceleration from the current rate of expansion.

Figure 4: NII and Margin trends

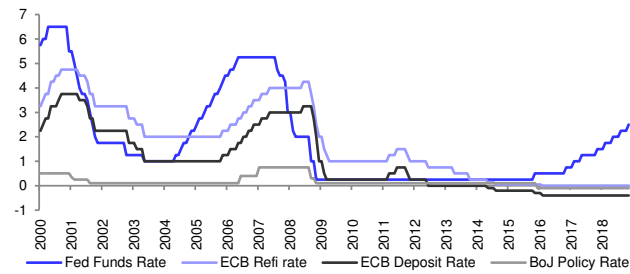


Source: Deutsche Bank, St Louis FED, ECB, BOJ

The Japanese experience proves that it is possible to keep monetary policy ultra-loose for decades and still fail to stimulate inflation while the health of the banking system deteriorates. The window to raise policy rates to address bank profitability is narrowing and the continent's banks are at dire risk of being permanently weakened. The failure to achieve 'escape velocity' in Japan, and the staunch adherence to low rates, is a key reason why Japanese banks fail to cover their cost of equity.

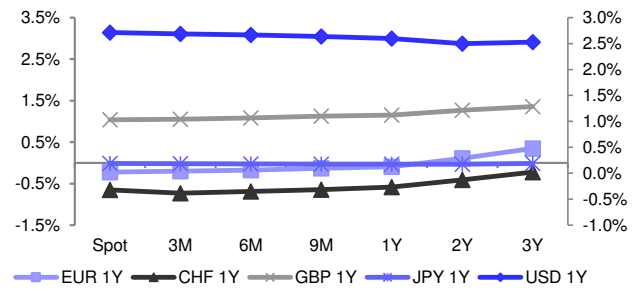


Figure 5: The gap between US vs ECB and BoJ rate cycles has never been longer...



Source: Deutsche Bank, Bloomberg Finance LP

Figure 6: ...while the window is closing for the ECB

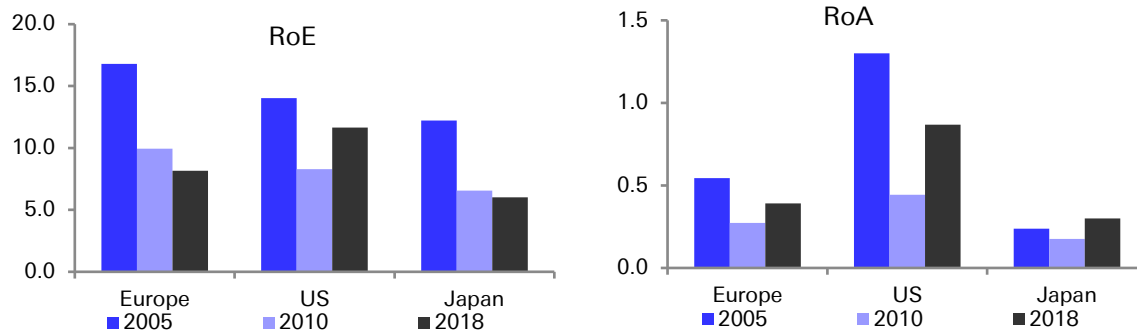


Source: Deutsche Bank, Bloomberg Finance LP  
Note: Forward rates (1Y)

The negative deposit rate compounds the fundamental problem that European banking returns are not sustainable. Take return on assets. As a rule of thumb, a well-functioning banking system should allow banks to make one per cent on their assets. US banks are very close to this mark. In contrast, European and Japanese banks both return under half a per cent on their assets – comfortably below pre-crisis levels.

If we narrow down returns to what investors recoup, return on equity, European and Japanese banks generate eight per cent and five per cent respectively, well behind their US peers at 12 per cent. It is also telling that returns on equity in Europe and Japan have fallen since the aftermath of the financial crisis while in the US they have risen.

Figure 7: Increasing divergence in valuations between US vs European & Japanese banks...



Source: Deutsche Bank, Factset

Figure 8: Europe vs US vs Japan banking - Dupont analysis

Dupont	Europe Banks		US Banks		Japan Banks	
	2007	2017	2007	2017	2007	2017
NII/ Assets	1.0%	1.2%	2.9%	2.9%	1.4%	0.7%
Revenues/ Assets	2.4%	2.2%	4.8%	4.4%	1.8%	0.9%
PPP/ Assets	1.0%	0.8%	1.9%	1.8%	0.9%	0.3%
LLP/ loans	0.6%	0.4%	0.9%	0.5%	0.1%	0.0%
ROA	0.7%	0.4%	0.9%	1.0%	0.6%	0.2%
Leverage	22.2x	14.8x	15.5x	11.2x	16.5x	17.2x

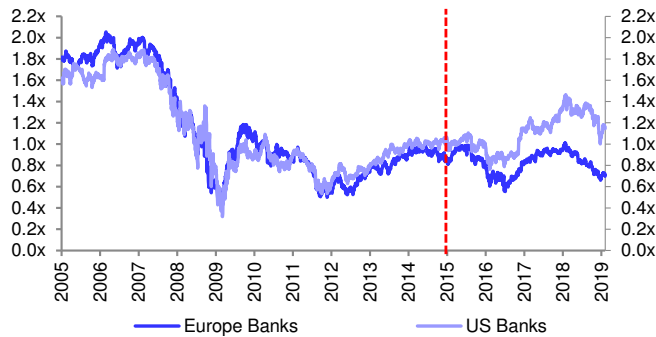
Source: Deutsche Bank, SNL, Factset



Additional factors compound the problems of Europe's banks, particularly as they have experienced a longer period of deleveraging than have their US peers. This has been encouraged, or enforced in some circumstances, by government policies designed around restoring budget stability through austerity. While the merits of these policies will no doubt be debated by economic historians in years to come, it is notable that in the US, where the government responded to the 2008 downturn with a stimulus package worth almost \$800bn, US banks quickly recovered from the financial crisis.

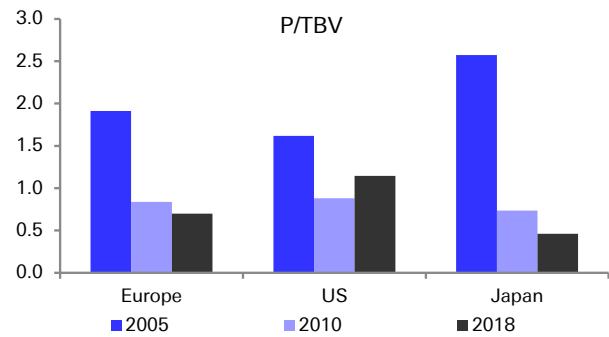
Given the situation in Europe increasingly mirrors that in Japan, it is no wonder that the share prices of European banks trade at just over half their book value, closer to Japanese valuations, while US banks trade over their book value. Of course, US banks have received a boost from nine interest rate hikes in the current cycle. In fact, since the cyclical low of three per cent in 2015, US bank net interest margins have improved to 3.5 per cent supported by the Fed rate cycle. This has fed the divergence in valuations between European and US banks since that time.

Figure 9: European banks traded in-line with US banks - until the Fed cycle



Source: Deutsche Bank, Factset

Figure 10: Increasing divergence in valuations between US vs European & Japanese banks...



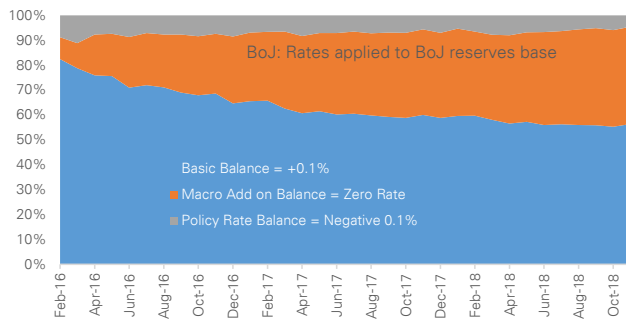
Source: Deutsche Bank, Factset

It is a scary prospect that Europe may follow Japan. If the ECB can't find 'escape velocity' on the path of rate normalisation, margin pressure could double from five basis points last year to ten basis points. Over the next two to three years, that could drive down returns on equity from about nine per cent to seven per cent. This problem will likely be exacerbated by meeting MREL requirements, capital buffers to absorb losses in bank resolutions. This is especially notable in the context of maturing TLTRO.

At the very least, the ECB should introduce a reserve tiering system similar to that employed by the Bank of Japan. Under the Japanese system, only about five per cent bank liabilities are hit with negative rates, whereas that ratio is reversed for banks in Europe with all excess reserves being subject to negative rates. In this way, deposit tiering would reduce the 'tax' on banking systems with excess reserves and have, in our view, limited impact on funding costs in the real economy.

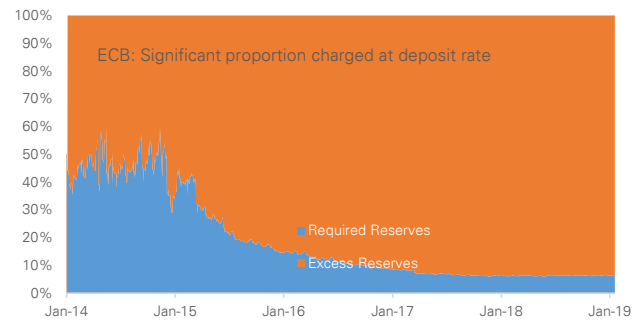


Figure 11: Negative rates apply only to a small proportion of balances at the BoJ ...



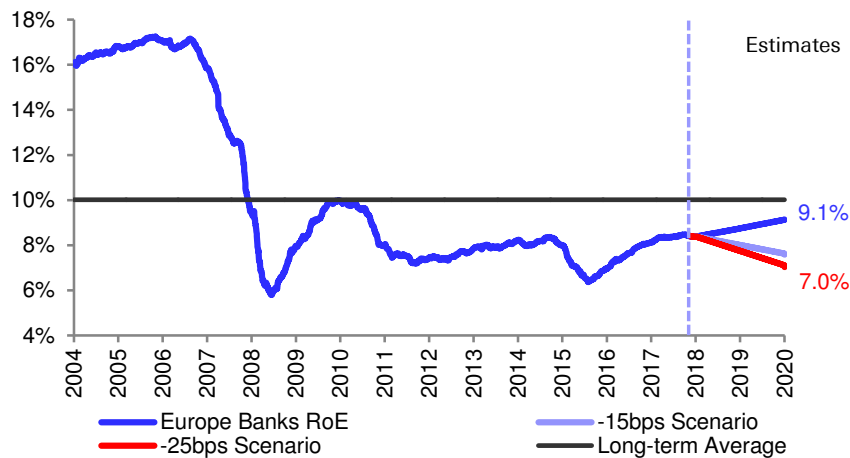
Source: Deutsche Bank, BoJ, Haver Analytics

Figure 12: ... compared with a significant proportion being charged the deposit rate at the ECB



Source: Deutsche Bank, ECB, Haver Analytics

Figure 13: Return on equity under different scenarios of changing net interest margins



Source: Deutsche Bank estimates, Factset

With the long-term future of the Eurozone economy dependent on a healthy banking system, everyone has a vested interest in helping to fix European banking. In the rest of this paper, we will present five ways to break the shackles that increasingly restrict banks' ability to support the real economy.

## 1. Consolidation is necessary but not sufficient

Europe's banking system is far more fragmented than those in other developed markets, including the US, and the competitive position of banks suffers as a result. This is a key reason why banks should be allowed to merge.

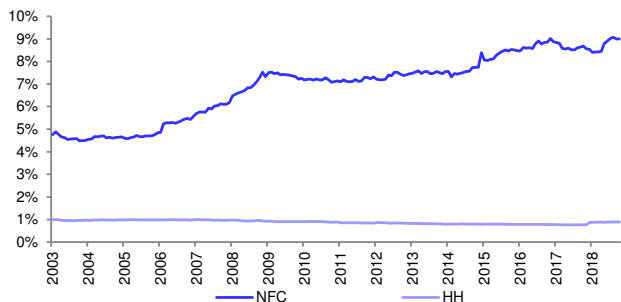
If we look at the US, the five largest banks share between them half the assets of all US banks. In contrast, the five largest European banks share less than one-quarter of banking assets. In other words, the top end of the US banking market is more than twice as concentrated as the market in Europe. And this is before considering that the US is a single market whereas Europe does not have a full banking union and thus banks operate in an environment fragmented by 19



different markets, each with their own unique requirements. This fragmentation leads to structurally lower returns.

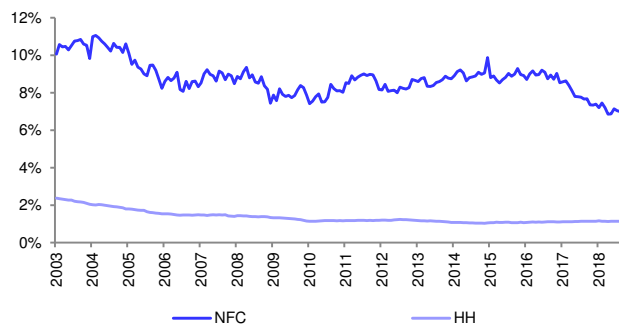
Just one example is the provision of cross-border loans. Just one per cent of European households have a loan through a bank outside their home country and just nine per cent of non-financial corporates do. Meanwhile just eight per cent of cross-border deposits in the euro-area come from corporates while almost none are from households.

Figure 14: Share of cross-border loans in the euro area for NFCs and households



Source: Deutsche Bank, ECB

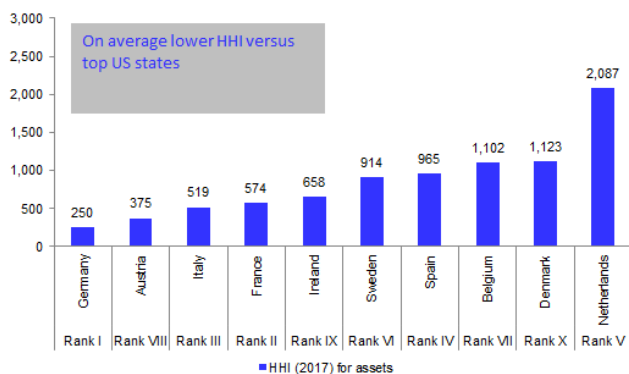
Figure 15: Share of cross-border deposits in the euro area for NFCs and households



Source: Deutsche Bank, ECB

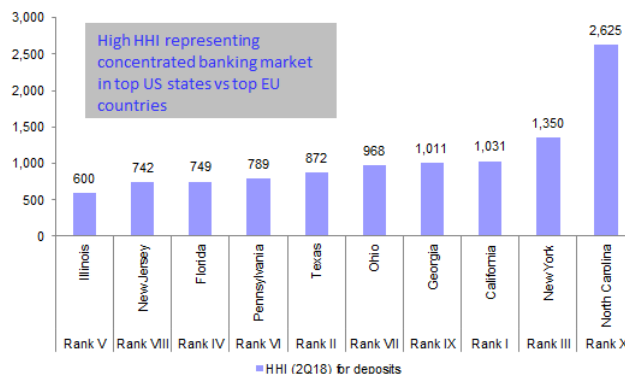
Such a low rate of cross-border financing makes no sense given Europe is supposed to benefit from its single market. Consolidation will help. That is because banking returns are generally correlated with market concentration. One way to look at concentration is through the Herfindahl-Hirschman Index where the market share of each bank in a country is squared and then added together. The higher the HHI figure, the greater the level of concentration. By this measure, only three countries in Europe show evidence of having a concentrated banking market: Belgium, Denmark, and the Netherlands. When we compare with the US, we find that on average, US states are more concentrated than are European countries.

Figure 16: HHI for top 10 Eurozone countries by GDP



Source: Deutsche Bank, Haver, ECB; Note: HHI based on assets market share; Ranks are based on GDP

Figure 17: HHI for top 10 US states by GDP



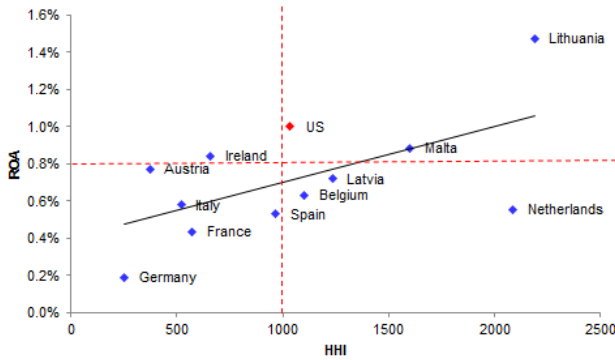
Source: Deutsche Bank, FDIC; Note: Based on deposit market share (2Q18), Ranks are based on GDP by respective states





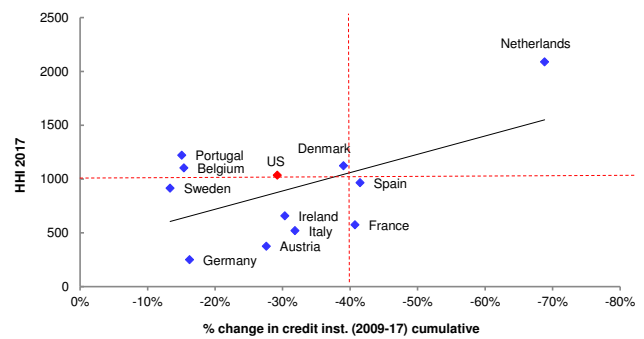
When the level of concentration is compared with returns, a pattern emerges. As the following chart shows, a higher level of concentration in a banking market (typically a higher HHI) equates with higher returns on assets.

Figure 18: Eurozone bank profitability correlated to concentration, ex-Austria & Netherlands



Source: Deutsche Bank, ECB, FRED

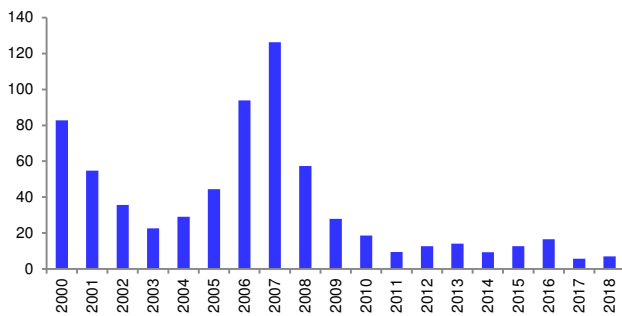
Figure 19: HHI index vs change in number of banks



Source: Deutsche Bank, ECB, FRED

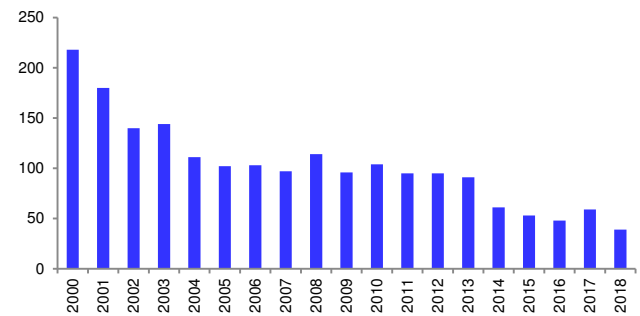
Despite the benefits of banking consolidation in Europe, mergers have been slowing since the financial crisis, both in terms of value and number of transactions as shown on the following charts. The barrier to cross-border consolidation remains the lack of a complete banking union (discussed later).

Figure 20: European Bank M&A has dwindled – by value (€bn)...



Source: Deutsche Bank, Dealogic

Figure 21: ...and by number of transactions



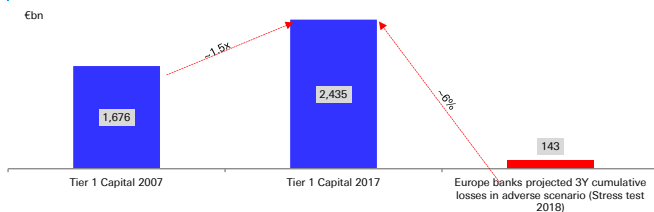
Source: Deutsche Bank, Dealogic

There are some who are worried about banking consolidation. After all, the financial crisis showed how dangerous large banks can be. These are very important concerns and they should be addressed.

The first thing to note is that promoting the consolidation of banks today is very different from promoting consolidation during the financial crisis. That was a time of rescuing banks with critical solvency problems. Today, solvency is not the concern it once was. Bail-in rules have been firmed up and capital buffers have been raised and many banks deliberately exceed what is necessary. In addition, stringent stress tests are very revealing if a bank is at any risk of trouble during an economic downturn. The following charts show that European banks have increased their tier one capital by half compared with pre-crisis levels.

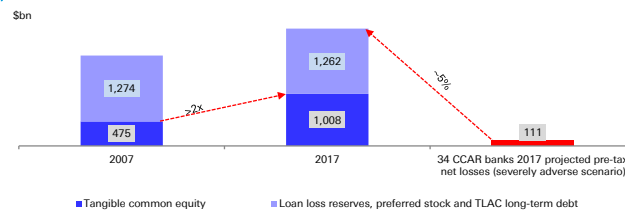


Figure 22: European banks comfortably cover projected stress test losses...



Source: Deutsche Bank, ECB, EBA

Figure 23: ...as do US banks

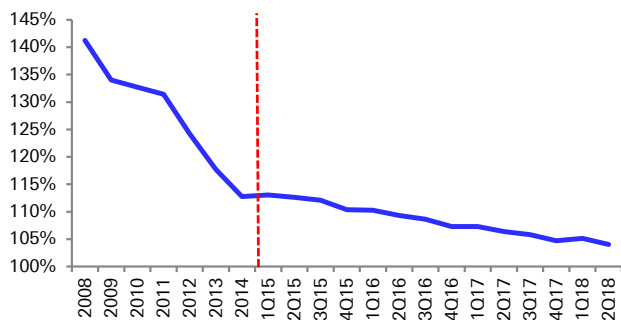


Source: Deutsche Bank, FED

Capital improvement is one thing, but banks have also improved their balance sheets more broadly. Since the financial crisis, the leverage multiple has improved (that is fallen) as assets which used to equate to 25 times equity are now just 14 times equity. Meanwhile, the leverage ratio at Europe's G-SIB banks has improved from 3.5 per cent of assets to almost five per cent of assets.

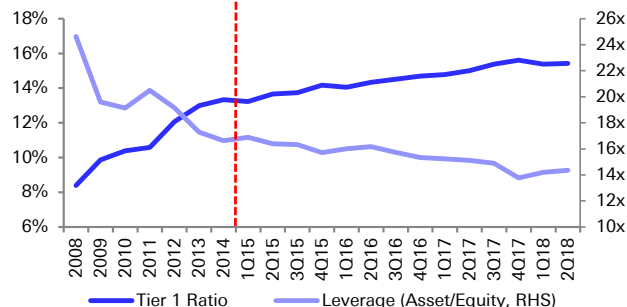
Of course, a lack of liquidity was one of the key factors that sank some banks during the financial crisis. Yet today, the overall funding position of European banks has drastically improved as the following charts show. Loans are now 105 per cent of deposits, down from 140 per cent. Furthermore, the G-SIBs have improved their liquidity coverage ratios over the past four years from under 130 per cent of net cash flow to 145 per cent, well above the regulatory requirements. Finally, non-performing loans at European banks have declined from a peak of over eight per cent towards three per cent.

Figure 24: Eurozone banks loan-to-deposit ratio



Source: Deutsche Bank, ECB

Figure 25: Eurozone banks Tier 1 ratio and leverage (assets/equity)

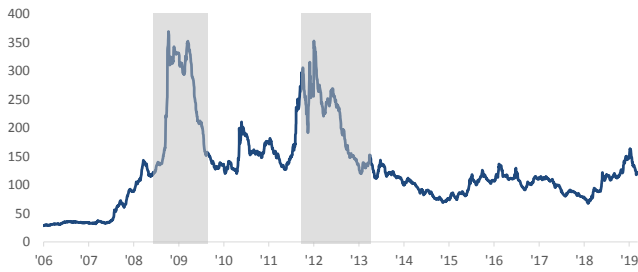


Source: Deutsche Bank, ECB

While it is true that Europe's banks are significantly stronger at a fundamental level than they were before the financial crisis, investors' perception of that strength is just as important. Here, the fixed income market shows investors are relatively confident with European banks. While the spread of bank debt yields over those of sovereign debt have widened recently, they are relatively tame compared with the periods of the financial crisis and the subsequent European sovereign debt crisis. Likewise, dollar funding markets remain calm both in euro-dollar cross-currency swap markets, and those for dollar-based libor overnight indexed swaps. The following charts show the stark difference between the concern about European banks' solvency during the crisis periods and today.

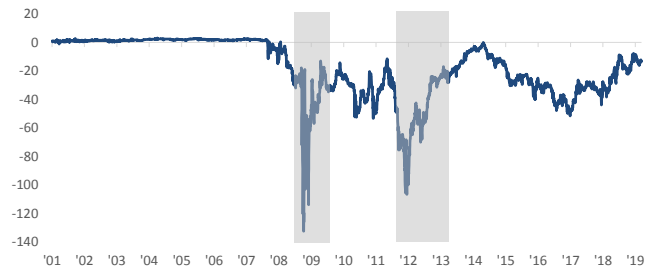


Figure 26: Iboxx senior benchmark spreads - Eurozone banks



Source: Deutsche Bank, Bloomberg Finance L.P., Markt

Figure 27: EUR-USD cross-currency swap - 1yr

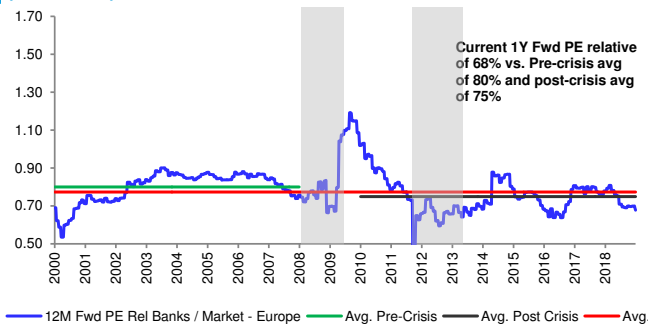


Source: Deutsche Bank, Bloomberg Finance L.P.

It is also useful to note that although bank spreads are wider today than they were before the financial crisis, today's spreads do not give credit for implicit sovereign guarantees that existed before the crisis and other bail-in conditions. This subsidy could be worth as much as 50 basis points as explained in our 2015 report 'Pricing TLAC rules into bank capital structure'. This should permanently boost spreads. This is not a bad thing, rather it represents a normalisation of a more efficient market where risk and reward are more balanced.

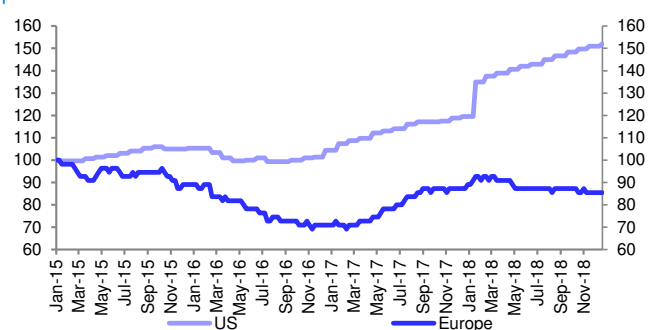
Unlike the fixed income markets, bank equity valuations relative to the market are trading at levels broadly consistent with the financial crisis albeit above levels seen through the 2011-12 sovereign crisis, which was arguably an existential one. This suggests markets are much more concerned about profitability than solvency. In this respect, we believe the market is increasingly fearful of European banking replicating the Japanese playbook.

Figure 28: European banks - relative PE vs market (vs pre- and post-crisis)



Source: Deutsche Bank, Factset, Bloomberg Finance LP  
Note: Averages adjusted to exclude 2008-09

Figure 29: 12m forward EPS momentum - European vs. US banks



Source: Deutsche Bank, Factset, Bloomberg Finance LP

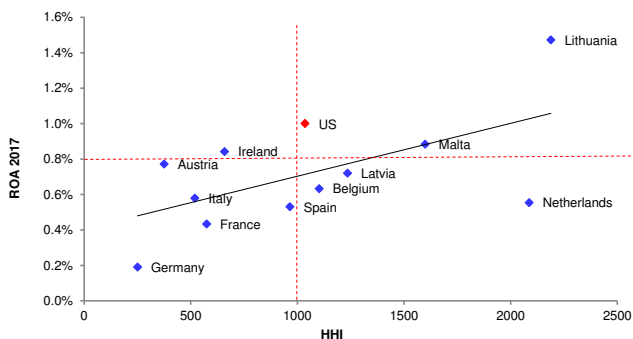
## 2. Policymakers need to break down barriers

We have argued that consolidation is a necessary condition to help fix Europe's banks and economy. However, consolidation by itself is not sufficient. So what is? The rest of this report will detail other changes that need to occur to create an environment that allows European banks to support the real economy. In this section we will examine how policymakers need to break down barriers to create the right structure.



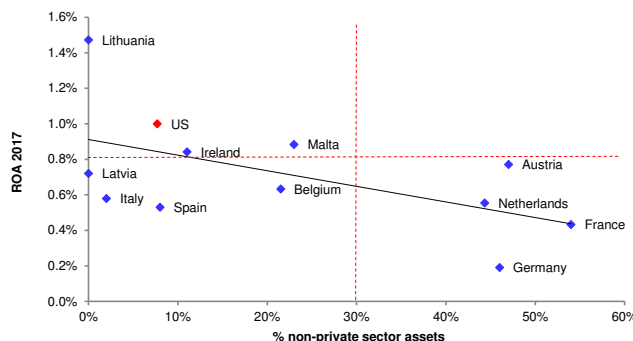
It should go without saying that the structure of a banking system matters. Yet, pleas for structural reform in Europe have so far gone unactioned. The first change in structure needs to take place within non-private sector banks. We discussed earlier how consolidation leads to increased banking returns as illustrated by the following charts (which were also shown earlier).

Figure 30: Returns generally correlated to market concentration...



Source: Deutsche Bank, ECB

Figure 31: ...unless significant non-private sector influence



Source: Deutsche Bank, ECB

An interesting takeaway from the above charts is that some European countries with high concentration have lower returns than the trend suggests they should. The Netherlands is the classic example. This situation here, and in a few other countries is muddled by the number of non-private sector banks. These comprise:

- Cooperative banks whose shareholder capital is technically owned by their customers.
- Public sector banks which are created by local or national governments and typically focus on a non-commercial, public interest objective.
- Nationalised banks that are currently under government control, after typically being rescued during the financial crisis with a view to privatise them, often under European conditionality.

These institutions exist with different motivations. They typically have lower market discipline, weaker incentives to prioritise profitability, more limited sources of external capital and, thus, potentially perpetuate the 'bank-sovereign doom loop' discussed later. Importantly, they weigh on the profitability and productivity of mainstream banks. As the following chart shows, this is particularly the case in Austria, Germany, France, and the Netherlands.

We believe policymakers need to take steps to break down the barriers of non-private sector banks to encourage more consolidation both within the sector as well as with private-sector banks. Over time, the shift to greater market ownership of such assets is likely to benefit the banking system by raising market discipline, providing capital flexibility as well as helping to reduce the bank-sovereign 'doom loop'. The Spanish cajas de ahorros, discussed below, are a case in point, while in Italy, the requirement for popolari (or cooperative banks) to move to joint stock status could open the field for further consolidation, especially as asset quality improves to more manageable levels. A more radical solution would be for regulators to monitor and control competitive pressure on new lending in terms



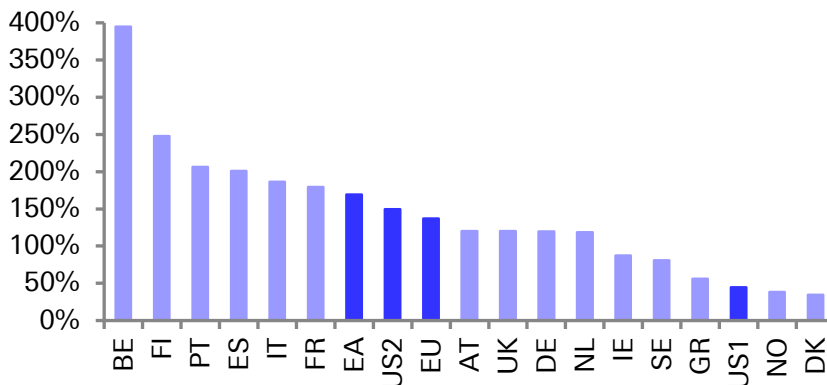
of credit underwriting, as undertaken in Spain, to eliminate unhealthy lending practices.

The benefits of the Spanish reforms can be seen in the numbers. There are currently 12 financial institutions in Spain, one-third the number before the sovereign debt crisis. As a result, the number of branches has declined by two-fifths while the headcount dropped by a third. This led to a one-tenth reduction in the cost base for Spanish banks which boosted returns on equity by 1.2 percentage points. At the same time, the increased concentration helped arrest the decline of net interest income. Indeed, by 2012, NII was just 0.8 per cent of assets, down one-third on pre-financial crisis levels. Since then, it has grown slowly to 0.9 per cent of assets. The result of Spain's banking reforms is that the real economy has received a much-needed boost.

### 3. Break the sovereign debt doom loop

If Europe's banks are to have a productive future, it is essential that any hidden surprises be brought out into the open. In this regard, regulators must reform the rules around sovereign debt, to which European banks are worryingly exposed and prevent the economy from falling into a doom loop. As the following chart shows, the average European bank has sovereign debt exposure equal to 170 per cent of its core tier one capital. That is more than triple the exposure of US banks.

Figure 32: EA banks significantly more exposed to sovereigns than US peers

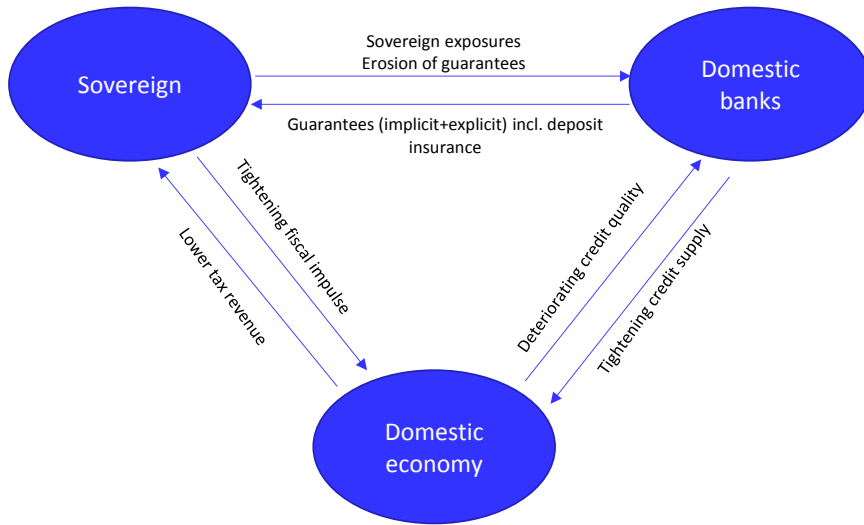


Source: Deutsche Bank, EBA, ECB, FDIC Note: US1 includes US treasury + State and Political Subdivisions Securities, US2 includes US1 + US Agencies and Corporation Securities

The risk of a doom loop is fed by the regulatory treatment of sovereign debt which has, for decades, been significantly discounted. In many cases, the prospect of default has been ignored completely. This can create dangerous incentives. The following illustration shows how banks and economies can be caught in the doom loop.



Figure 33: Selected contagion channels between banks and sovereigns in the euro area



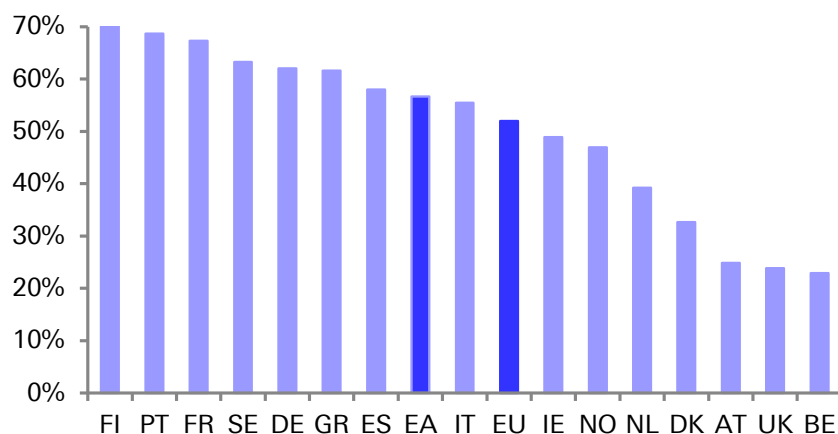
Source: Bruegel.org, Deutsche Bank

While sovereign exposure to banks has been limited via the Bank Recovery & Resolution Directive, banks' exposure to sovereigns remains a risk should there be concerns over debt sustainability. This could create a vicious cycle by way of impairing the credit transmission mechanism that would further weaken the economy, lower tax receipts, hurt asset quality, and add to both banking and sovereign sustainability concerns.

Just as concerning as the overall scale of sovereign exposure is the significant 'home bias' of European banks. That is, about 60 per cent of an average European bank's sovereign exposure is to their home government's debt, as shown on the following chart. This would be the equivalent of a US bank holding enormous amounts of State Bonds as opposed to US Treasuries. In this case, the US bank would be much more vulnerable to any financing problems experienced by the one specific state.



Figure 34: European banks' 'home bias' of sovereign exposure



Source: Deutsche Bank, ECB, EBA Note: Domestic sovereign exposure as total sovereign exposure

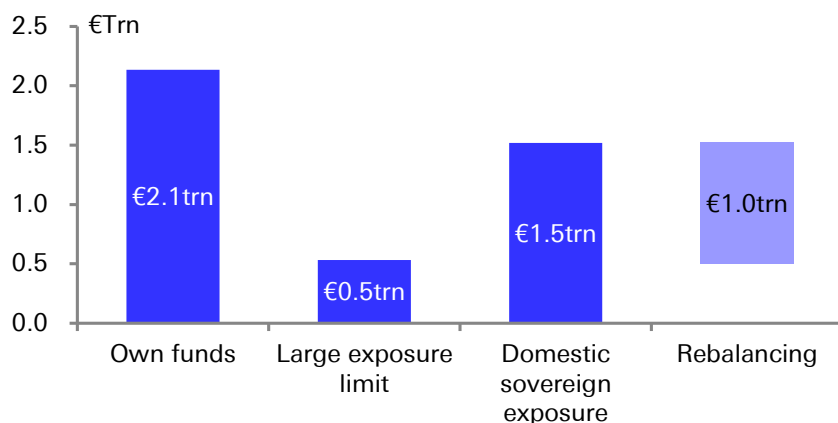
Despite the sovereign debt crisis in 2011-2012 highlighting the importance of addressing the doom loop, it is still relatively ignored and, instead, the focus has been on reducing non-performing loans and legacy assets. Of course, reducing NPLs is a key part of de-risking banks and it is true that NPLs still comprise three per cent of European banks' loans, triple the rate of US banks, and certain countries, including Greece, Italy, Portugal, and Ireland, still hold double-digit rates of NPLs. However, progress in Europe has been strong and the current three per cent rate is almost down two-thirds on the level six years ago. Furthermore, in recent years and quarters, NPL disposals have accelerated, notably in Italy, as bid-offer pricing 'gaps' have closed as a result of higher provisioning and an improvement in collateral values. Indeed, problem assets fell one-fifth between early 2017 and early 2018.

To pull households, corporates, governments, and banks out of the doom loop, three things are necessary:

- Stricter capital requirements for sovereign exposures via removal of their preferential risk-weight treatment. Similarly, alternative approaches to the current preferential treatment of sovereign exposures in liquidity regulation
- Diversification requirements via fully or partially removing the exemption of sovereign exposures from the large exposures regime, and introducing a capital requirement for concentration risk to encourage diversification of exposure away from home bias but within the euro area. On our estimates, a large exposure rule based on 25 per cent of Own Funds would require a €1trn sovereign rebalance (as shown in the following chart), or two-thirds of domestic sovereign exposures held by the euro-area banking system



Figure 35: Large Exposure Rule Could Drive €1tn Sovereign Rebalance



Source: Deutsche Bank, EBA, ECB

- Stronger focus on sovereign exposures in stress-testing as well as in macro-prudential regulation

The prospects for a global compromise on sovereign treatment remain scant. Therefore, Europe needs to take its own initiative as a single-currency, multi-fiscal bloc, even though this introduces its own unique risks.

#### 4. Complete the banking union

The third pillar of banking union remains a distant prospect and, without it, the prospects for cross-border consolidation and an integrated banking system are slim. A closer banking union will help break down some of the barriers that currently inhibit consolidation. For example, current European regulations mandate liquidity requirements be met at the subsidiary level in each country rather than at the parent domicile level. The common justification for this is the protection of national deposit insurance schemes. The downside is that banks are constrained in their ability to move funds across borders from one entity to another, while managing liquidity centrally. Thus, Europe needs to set effective cross-border capital and liquidity waivers to encourage cross-border consolidation. If Europe doesn't trust itself, who will?

The slow progress towards banking union comes despite the recent agreement for a common backstop for the Single Resolution Fund to be provided by the European Stability Mechanism by 2024. Moreover, a solution must be found to provide liquidity on resolution.

The key stumbling block remains the creation of a fully-fledged European Deposit Insurance Scheme. Achieving this objective is key to ensuring depositor confidence across the banking union – a precondition for a truly integrated banking system. While bank deposit protection currently follows the same rules across Europe, it remains under national responsibility. Existing proposals have yet to receive sufficient consensus among euro-area countries, resulting in a deadlock in the policy discussion. Risk reduction is considered to be the precursor





before risk sharing albeit without precise metrics of how much risk reduction is deemed sufficient.

Yet, in many ways this debate misses the key point which is that the risk sharing mechanism should be fully-funded by the banking system rather than by the taxpayer. Our proposal includes:

- An ex-ante fund paid for by the banking industry, not unlike the FDIC in the US;
- Ex-post 'top up' contributions should the fund be depleted (in an extreme scenario);
- Differentiated deposit insurance premium rates, unlike the US, to reflect differences in 'riskiness' not dissimilar to the risk-factor adjustment applied in calculating SRF risk-adjusted contributions but which also potentially reflect differences in insolvency and foreclosure frameworks;
- National deposit insurance schemes to be progressively phased out to be replaced by a single EDIS run by the Single Resolution Board which already manages the Single Resolution Fund;
- Phasing in timeline of dependence on national versus European schemes to reflect relative success in meeting risk reduction targets.

This would allow for, and be complemented by, the phase-out of national ring-fencing of capital and liquidity thus allowing for the creation of a much more integrated European banking system. Moreover, such a system would also create incentives for both risk reduction as well as structural improvement in insolvency frameworks.

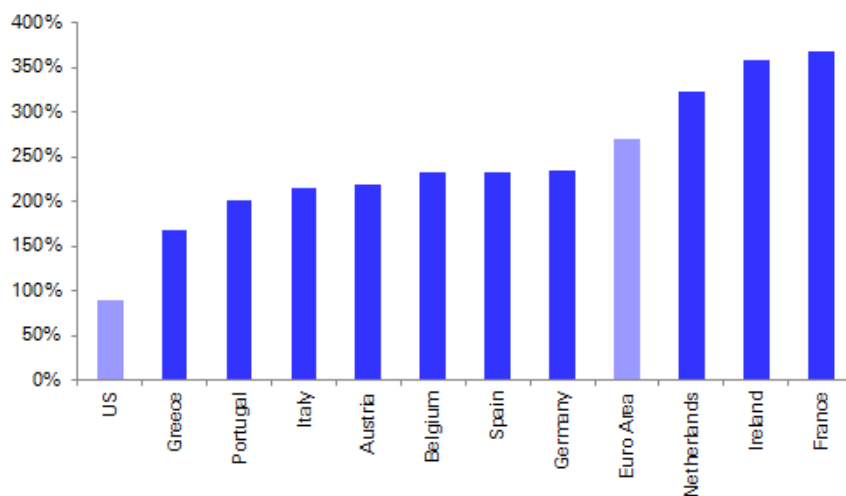
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## 5. Europe needs a much more ambitious capital markets union

The size of Europe's banking system introduces a frightening level of risk into the continent's economy. Indeed, the banking market is 2.7 times larger than the entire eurozone economy, a vivid contrast with the US where the banking market is slightly smaller than the economy. In this regard, Europe's overreliance on bank funding remains a key weakness of its financial system.



Figure 36: Total banking assets as proportion of GDP (2017)



Source: Haver, ECB, FDIC, Note: For Eurozone countries, assets represent MFIs excl. Eurosystem, Assets for the US are for total FDIC insured commercial banks and FDIC insured savings institutions

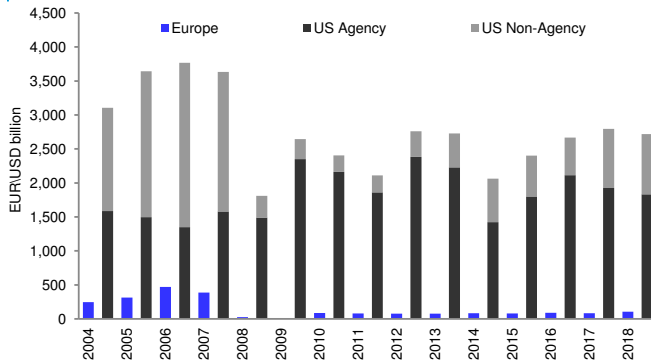
A capital markets union can help mitigate the risks. Indeed, the urgency in developing a better capital markets union becomes all the greater following Brexit given the historical dependence on London as the financial hub of the EU. There are three ways Europe can create a more ambitious capital markets union:

- Creating deeper cross-border markets to help reduce the 'home bias'; and
- Reducing the reliance on the banking system by encouraging alternative market-based sources of finance notably for small and medium enterprises, infrastructure projects, or long term financing; and
- Revival of the securitisation markets as a source of funding and risk sharing.

The third point, building a robust securitisation market, is particularly critical. The European securitisation market today stands at just €0.5trn, compared with \$11.5trn in the US. Securitisation offers banks a diversified funding source and can facilitate the transfer of credit risk to others in the market, thereby providing capital relief that can be used to generate new lending to the real economy. In the process, it improves bank capital efficiency and profitability.

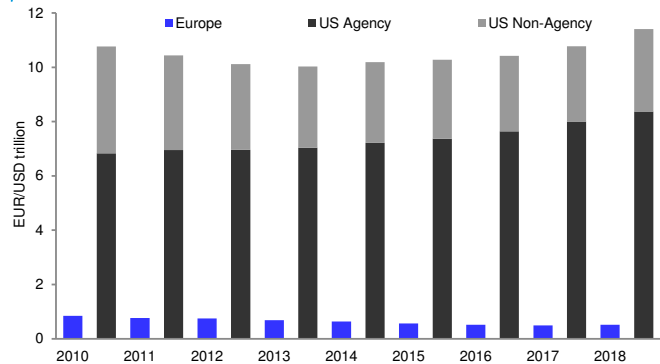


Figure 37: New issue amounts in securitisation markets



Source: Deutsche Bank, SIFMA, Bloomberg Finance LP

Figure 38: Outstanding amounts in securitisation markets



Source: Deutsche Bank, SIFMA, Bloomberg Finance LP

European policymakers have already begun to put in place building blocks for a sustainable securitisation market. Yet the imposed European regulatory burden for securitisation is still far too onerous. Despite holding up securitisation as an essential part of the capital markets union, Basel IV capital and liquidity rules, alongside Solvency II, effectively penalise holders of securitisation and offer limited incentives to banks as originators. As a result, the securitisation market in Europe remains moribund with annual issuance of just €100bn per annum, compared with up to \$2.5trn in the US.

The benefits of a deep securitisation market can be easily seen in the US as real money investors are adequately incentivised and become important participants in the market. The securitisation business model for residential mortgage lending in the US also differs significantly from Europe. Here, US banks act as a conduit for mortgage origination, with capital market participants the ultimate holders of mortgage risk. This boosts US bank returns as they gain from the capital efficiency of generating fees for originating loans and on-selling, rather than being required to warehouse mortgage risk indefinitely. US banks effectively benefit from an implicit government guarantee, knowing there is a GSE mortgage agency take out for mortgages originated that meet predefined criteria.

In contrast, European banks predominantly originate to hold mortgages and fund them on balance sheet. While originate-to-distribute models exist, they are small in nature and lack the regulatory incentives to have a meaningful impact on the European banking system. Indeed, the securitisation market funds three-quarters of the \$12trn mortgage market in the US, versus just two per cent in the Eurozone where residential mortgages are funded on balance sheet with covered bond funding prominent alongside deposit funding. Establishing European agencies to aid the securitisation of residential mortgages is certainly one option for a way forward, however, it may not be necessary if other recommendations are realised. Indeed, it may certainly be politically trickier than the other options.

Some other options are laid out below. They aim to create regulatory carrots and place liquidity and capital rules for securitisation on par with comparable instruments. Without them, the growth of a fully fledged securitisation market, similar to that seen in the US, will be constricted.

First, equal liquidity treatment of securitisation versus comparable instruments is needed. Despite the introduction of a far more robust securitisation framework,



current liquidity rules, (LCR and NSFR) mandate both higher haircuts and minimum rating criteria for senior securitisation positions compared with sovereign, corporate, and covered bonds.

Second, Europe needs a tangible reduction in capital treatment for holders of securitisation for European bank investors under CRR, and European insurers under Solvency II. For example, CRR risk weights are set up such that practically most AAA securitisations have at least a risk weight of 15 per cent, up from 7.4 per cent under the old Basel framework, while under Solvency II, a non STS AAA securitisation position of five-year duration attracts a 62.5 per cent capital charge versus a 4.5 per cent charge for a AAA corporate bond.

Third, a loosening in significant risk transfer (SRT) criteria is necessary. Currently, banks originating loans can obtain capital relief if they manage to sell half, by risk weight, of mezzanine tranches or where mezzanine tranches do not exist, they hold less than 20 per cent of the first loss tranche. A reduction in capital charges in the preceding point would help the demand side economics of securitisation, while loosening the SRT threshold would create significant supply side incentives for bank originators.

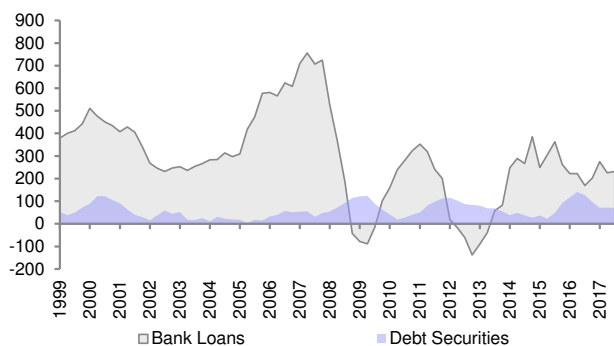
If implemented, these proposals would help bring Europe's banking system more in line with the US capital-markets driven funding system. This is important as should Europe face an endogenous shock, such as a sovereign crisis, or exogenous one, such as an emerging markets problem, the impact to credit will be significant. This was evident through both the financial crisis as well as the European sovereign debt crisis when credit supply from bank lending was much more impacted than that from capital markets for both equity and debt securities.

Experience in the US proves that the diversification of funding sources makes an economy more resilient throughout business cycles. During the financial crisis, the greater diversification of funding sources allowed the American economy to support the subsequent recovery. For example, the agency residential mortgage-backed securities market supported the ongoing financing of the housing market when private securitisation markets dried up.

In contrast, Europe's recovery from the crisis was hampered by its dependency on bank lending. Right at the time when the economy was desperate for funding to provide growth, banks embarked on a deleveraging programme. A similar situation occurred during the subsequent sovereign debt crisis. The following charts show just how volatile bank financing can be compared with capital markets. Furthermore, throughout both these crisis periods, a breakdown of monetary policy transmission due to bank stress hindered the allocation of capital in Europe.

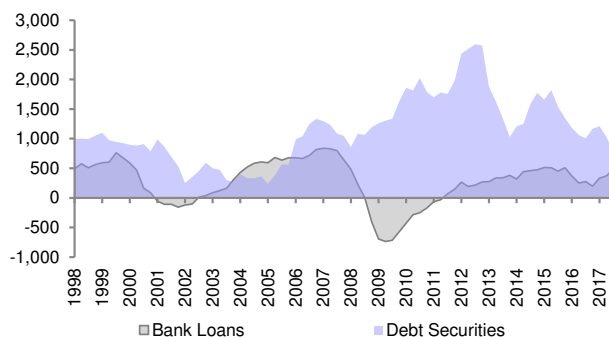


Figure 39: Eurozone bank lending has been more volatile than capital markets...



Source: Deutsche Bank, ECB \*Note: NFC source of funding EUR bn

Figure 40: ...as was the case in the US where markets are much more important



Source: Deutsche Bank, FED \*Note: NFC source of funding USD bn

The benefits of a capital markets union go beyond merely crisis management. First, capital markets offer a 'spare tyre' for corporations in the real economy. In particular, a shift from bank to bond funding can relieve credit institutions' balance sheet constraints, making it easier for them to lend to small and medium enterprises which, typically, rely entirely on bank financing.

Furthermore, market financing can be more effective than bank financing when it comes to backing innovation or new sources of growth. This is because market-based financiers, such as venture capital or private equity firms, are able to take on riskier projects than can banks. Hence, a financial system skewed towards bank financing may place Europe at a disadvantage at a time when future growth drivers are based on high-risk, high-growth innovations such as automation, artificial intelligence, and robotics.

Finally, a deeper capital markets union would lessen the need for funding markets to be supported by ECB lifelines. It would lessen the incentive to become hooked on support and make it easier for the ECB to remove support after its purpose is complete. Sadly, this isn't the case today as funding markets are supported by ECB lifelines including the long-term financing operations. Without a better capital markets union, the removal of ECB lifelines could compress bank margins risking credit transmission to the real economy.

## The final word

Given that low interest rates since the financial crisis have benefitted sovereigns and corporates, while hurting households and banks, for the sake of restoring balance in the economy and society, it is necessary to even the scales and redistribute the benefits. If monetary policy has become too encompassing, governments should step in and deploy fiscal measures.

With that in mind, given the tight relationship between economic and financial cycles, the stability and sustainability of Europe's banking system should be one of the highest priorities for policymakers. The link between economic growth and bank credit means it is critical that the latter is stimulated by creating an environment that incentivises banks to lend rather than one that forces them to become increasingly risk-averse. The bifurcation of the US and Japanese experience over the last two decades has shown the policies that do and do not support a sustainable banking system, and thus, a growing economy. It is



essential that Europe's policymakers ensure that the continent takes a step down the same path trodden by the US and not that lumbered along by Japan.

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## Appendix 1 - Summary of recommendations

1. Promote consolidation to decrease fragmentation and bring the competitive position of European banks closer to that of US banks

2. Break down policy and legal barriers by ending the special treatment of nationalised banks, cooperatives, and other public sector banks which typically have lower market discipline and weaker incentives than private sector banks

3. Break the sovereign debt doom loop by enacting:

- Stricter capital requirements for sovereign exposures via the removal of their preferential risk-weight treatment
- Diversification requirements via fully or partially removing the exemption of sovereign exposures from the large exposures regime and introducing a capital requirement for concentration risk
- A stronger focus on sovereign exposures in stress-testing as well as in macro-prudential regulation

4. Complete the banking union with proposals including:

- An ex-ante fund paid for by the banking industry, not unlike the FDIC in the US
- Ex-post 'top up' contributions should the fund be depleted (in an extreme scenario)
- Differentiated deposit insurance premium rates, unlike the US, to reflect differences in 'riskiness' not dissimilar to the risk-factor adjustment applied in calculating SRF risk-adjusted contributions but which also potentially reflect differences in insolvency and foreclosure frameworks
- National deposit insurance schemes to be progressively phased out to be replaced by a single EDIS run by the Single Resolution Board which already manages the Single Resolution Fund
- Phasing in timeline of dependence on national versus European schemes to reflect relative success in meeting risk reduction targets

5. Create a more ambitious capital markets union by:

- Creating deeper cross-border markets to help reduce the 'home bias'
- Reducing the reliance on the banking system by encouraging alternative market-based sources of finance notably for small and medium enterprises, infrastructure projects, or long term financing
- Revival of the securitisation markets as a source of funding and risk sharing



# Appendix 1

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