

**GLOBAL FINANCIAL AND EUROZONE REFORM:  
FIVE QUESTIONS ON A COMMON THEME**

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People tend to attribute blame for a crisis according to their ideological predilection. When the financial crisis of 2007 to 2008 first broke many commentators in continental Europe blamed the excesses of Anglo-Saxon finance capitalism, financial liberalisation, and an explosion of private debt. From 2010 onwards, some of the criticism flowed the other way – undisciplined governments and a Eurozone project which ignored market realities were blamed by many in Britain and the US for the stresses in the Eurozone, and as a result for slow recovery across the developed world.

Both criticisms were right. The crisis and slow recovery resulted from the combination of over-confident faith in free financial markets and from structural flaws in the Eurozone. But underlying both was a failure to recognise the central importance to economic and financial stability of debt and leverage levels in general, and of the dynamics of bank credit creation in particular. Both the excesses of Anglo-Saxon finance capitalism and the flaws of the Eurozone construct indeed reflected a failure to understand that financial and banking markets are different from other markets and that the general propositions in favour of market liberalisation –

powerful in most sectors of the economy – are far less valid when it comes to finance. The flawed launch of the Eurozone project indeed was in part based on the same over-confidence in the benefits of free financial markets and free capital flows that blinded us to the problems across the global financial system.

Five years after the crisis broke, we have made major reforms to the global financial regulation; and major changes are being introduced in the Eurozone, in particular through the creation of a banking union. In my remarks today, however, I want to take the opportunity of one of my final speeches as Chairman of the FSA to raise questions about whether more radical reform still would be ideal and/or required for lasting stability.

In particular I would like to pose 5 questions (EXHIBIT 1)

1. Are optimal capital ratios higher still than Basel III standards, and if so what should we do about it?
2. Should macro-prudential regulators seek to constrain aggregate economy wide leverage and if so how?
3. How much federalism is needed to make the Eurozone a sustainable and successful monetary union?
4. Are we unnecessarily worried about 'fragmentation' of global banking markets?
5. Should banks have the right to cross-border branching under European Union single market rules?

These are certainly not the only questions remaining in the global and European reform agenda<sup>1</sup>. And they may appear rather diverse. But there is a common theme - the common intellectual errors which lay behind both over-confidence in the benefits of pre-crisis financial innovation and intensity and the flawed design of the Eurozone project.

### **FINANCE IS DIFFERENT; DEBT IS DIFFERENT; BANKS ARE DIFFERENT**

Ahead of the crisis finance boomed. Trading volumes increased rapidly relative to real economic variables (EXHIBIT 2); financial innovation led to a proliferation of derivatives and structured credit products: and in the US and the UK in particular financial activity grew as a percentage of GDP (EXHIBIT 3).

The predominant belief was that these developments, by completing more markets, were helping to make economies more efficient, facilitating the efficient allocation of capital across the global economy. And there may indeed have been some such benefits. But the belief that such benefits must axiomatically exist and must be large was based on a failure to recognise that inherent imperfections of financial and banking markets can at times lead not to improved allocative efficiency and risk mitigation, but to resource misallocation and instability.

Financial markets link the present to the future in conditions of inherent irreducible uncertainty. They are populated by agents whose decision making processes are part rational but part driven by emotional responses. As a result, they are subject to herd and momentum effects, to self-reinforcing surges of exuberance and then despair.

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<sup>1</sup> They exclude for instance the vital ones relating to shadow-banking and to the OTC derivatives markets which are key 2013 priorities of the Financial Stability Board.

In April 2006, the IMF Global Financial Stability Review talked with approval of the fact that: *'credit derivatives enhance the transparency of the market's collective view of credit risks, and thus provide valuable information about credit conditions and increasingly set the marginal price of credit'*. So the price of credit was set not by credit officers' judgement but by the wisdom of the market: and that, the IMF believed, was a good thing.

But consider what the wisdom of the market told us in spring 2007 (EXHIBIT 4), only a few months before the onset of a huge financial crisis. The markets' collective view was that credit risks in major banks, as expressed in Credit Default Swap spreads, had never been lower. Market pricing of credit risks gave us no warning whatsoever of impending financial disaster: it reflected self-reinforcing exuberance in the boom, followed by a swing to excessive despair.

Such swings in sentiment and prices are found in all liquid financial markets, including equities. The internet boom and bust of 1998 to 2002 (EXHIBIT 5) was also in retrospect an example of irrational exuberance. And it certainly drove some misallocation of resources, with large investments in the multiple internet start-ups which had no chance of success, as well as in the few that did. But value destruction as well as value creation, is, as Schumpeter argued, essential to innovation. And the internet equity price boom and bust did not lead to financial crisis nor macroeconomic recession. Equity market irrationality per se is not a fatal problem: financial crisis and macroeconomic harm usually arise only when irrationality extends also to the provision of debt finance.

The fundamental cause of the financial crisis of 2007 to 2008 was the build-up of excessive leverage in both the financial system (banks and shadow-banks) and in

the real economy. Increased leverage and rapid growth in leverage creates rigidities and financial stability risks. The detailed arguments for that proposition have been made extensively elsewhere<sup>2</sup>. Here I will simply outline the essential points.

### **Debt contracts and rigidities**

Debt contracts play a valuable role in advanced economies, providing businesses and individuals with greater certainty over future income streams than would be delivered in a world where all contracts took an equity form. But the presence of debt contracts inevitably creates financial and stability risks. These derive from three inherent features of debt versus equity (EXHIBIT 6).

- First the tendency of investors/lenders to suffer from ‘local thinking’ or myopia, entering into contracts which, as Gennaioli, Shleifer and Vishny put it, ‘owe their very existence to neglected risk’ (Shleifer *et al* 2010) (EXHIBIT 7).
- Second, the rigidities and potential disruption of default and bankruptcy processes, which as Ben Bernanke has pointed out ‘in a complete market world ... would never be observed’ (Bernanke, 2004), but which in the real world create fire sale and disruption risks.
- Third, the need for short and medium term debt contracts to be continually rolled over, making the stability of new credit flows a key macroeconomic variable.

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<sup>2</sup> See e.g. Bernanke 2004, Gennaioli, Shleifer and Vishny 2010, Schularick and Taylor 2009, Taylor 2012. Turner April 2012, and Turner November 2012 provide a more detailed account of these arguments than set out here.

## **Banks and private credit creation**

These risks are inherent in debt contracts and would exist even if there were no banks i.e. even if all debt contracts directly linked end investors with end borrowers. But fractional reserve banks, simultaneously creating private credit and private money, can greatly swell the scale of debt contracts in an economy and introduce maturity transformation. And there is no naturally arising mechanism to ensure that the scale of such maturity transformation is optimal<sup>3</sup>.

As a result banks can greatly increase the scale of financial and economic stability risks. They can also play an important autonomous role in the creation and destruction of spending power, i.e. of nominal demand, and as a result can generate booms and busts in overall economic activity.

## **Secured lending, credit and asset price cycles**

The danger of excessive and volatile bank credit creation is still further exacerbated when credit is extended to finance the purchase of assets – in particular real estate – whose value is itself dependent on the level of debt financed demand. (EXHIBIT 8) Unsustainable bank credit extension can therefore lead to credit and asset price cycles of the sort which Hyman Minsky described (Minsky, 1986). So too however, as we learnt before the crisis, can uncontrolled credit extension by chains of shadow banking entities which in aggregate perform credit intermediation with leverage and maturity transformation (the defining characteristic of banks but outside the scope of bank regulation).<sup>4</sup>

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<sup>3</sup> As Jeremy Stein has illustrated; given inherent market failures ‘unregulated private money creation can lead to an externality in which intermediaries issue too much short-term debt and leave the system extremely vulnerable to costly financial crisis’ (Stein 2012)

<sup>4</sup> See Turner April 2012 and FSB Report ‘Strengthening the Oversight and Regulation of Shadow Banking’.

Together these inherent characteristics of debt contracts, banks and credit/asset price cycles make the level of leverage in both the financial system and the real economy, and the rate of change of leverage, key drivers of financial instability risks. And over the last 50 years, as in the decade running up to the 1929 crisis, levels of leverage in both the real economy and in the financial system hugely increased. EXHIBITS 9 to 11 provide some indicators of that increase in private leverage for the UK and the US.

Ahead of the crisis, the predominant assumption of much economic theory and of macroeconomic policy was that such increasing leverage could be either ignored or positively welcomed (EXHIBIT 12).

- Ignored because financial system developments were considered as neutral (or simply absent) in models of money demand, inflation and real output. As Oliver Blanchard has put it 'we assumed we could ignore the details of the financial system'. Or as Mervyn King put it, the dominant new Keynesian model of monetary economics 'lacks an account of financial intermediation, so that money, credit and banking play no meaningful role'.
- Or welcomed because financial deepening could be assumed to be axiomatically beneficial, since it reflected market completion and since it arose from freely chosen contracts between rational agents.

In retrospect those assumptions were part of a widespread intellectual delusion which left us ill-equipped to spot emerging financial stability risks. They are now being challenged. An important recent BIS paper by Steve Cecchetti and Enisse Kharroubi for instance, aims to reassess the impact of financial deepening on growth, and reaches the tentative conclusion that private credit to GDP ratios may be

related to economic growth in an inverse U function, with a level beyond which further financial deepening has a negative impact (EXHIBIT 13) (Cecchetti and Kharroubi 2012). Similarly, recent papers by Moritz Schularick and Alan Taylor have investigated the macro-impact of the large increase in financial deepening and leverage which occurred over the several decades before the crisis, and found little or no evidence of any beneficial impact on growth (Schularick and Taylor, 2009, Taylor, 2012).

Both theory and emerging empirical evidence therefore suggest that financial stability authorities should in future consider the absolute level of leverage in economies, the aggregate balance between debt and equity contracts, as a key indicator of potential financial stability risks. That in turn may carry implications for optimal micro and macro-prudential regulations: in both, optimal policy might be more radical than that currently planned. The following two questions arise.

**(i) Micro-prudential regulation: would optimal capital ratios be higher than Basel III standards?**

In the micro-prudential arena, the key issue is: what are the optimal limits to leverage within the banking system, a level which we constrain through the imposition of minimum capital ratios? The greater the allowed banking sector leverage, the greater the potential for banks to create private debt and money, increasing as a result the level of leverage within the real economy.

The Basel III capital requirements impose significantly tighter constraints than existed pre-crisis.<sup>5</sup> But even these requirements still allow banks to be very highly

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<sup>5</sup> The total impact reflects changes made to the definition of the numerator (what counts as equity) and the denominator (risk weighted assets) as well as the required ratio. The combined effect of these changes means



leveraged. Prime mortgages can be risk weighted as low as 10% or less: with a required 10% capital ratio<sup>6</sup> this amounts to a requirement that each 100 of mortgages is backed by just one of equity capital. For a pure mortgage bank the Basel III leverage ratio would effectively impose a higher but still modest 3% limit. We still have 'fractional reserve' banks running on very small fractions, whether the fraction is defined on the liability (capital ratio) or asset (liquid assets) side of bank balance sheets.

In the wake of the great banking crisis of the early 1930s, several major economists argued for the abolition of fractional reserve banking (Simons 1936, Fisher 1936, Friedman 1948). They believed that the ability of private banks to create private money and credit in uncontrolled amounts was the fundamental driver of the 1929 financial crisis and subsequent Great Depression.

In fact, there can be good arguments in principle for the beneficial impact of fractional reserve banks and the maturity transformation function which they perform (Turner, November 2012). But social optimality does not require the fraction (whether expressed in capital or reserve ratio terms) to be anything like as low as allowed in the pre-crisis period. It is notable for instance that early twentieth century banking systems ran with equity and liquidity levels far above current standards, but were still able to serve the needs of growing economies. (EXHIBIT 14)

The question of what fraction is optimal (i.e., how leveraged banks should ideally be) is therefore an important issue of financial economics, but one only partially addressed in our assessments of the macro impact of the Basel III package. The

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that the Basel III regime requires several times as much capital as the absolute minimum allowable under Basel II

<sup>6</sup> Given the Basel III minimum of 4.5% plus the Capital Conservation Buffer of 2.5% plus a GSIFI surcharge of up to 2.5% , it is likely that the market will treat a ratio of around 10% as the normal time minimum for the largest banks.

methodology of those assessments<sup>7</sup> focuses on an apparent trade-off between the benefits of lower cost credit intermediation and the risks of financial and macro-economic instability if the banking system runs with too small capital and liquidity buffers and as a result experiences crisis. These methodologies reflect macro models in which additional credit supply will in general be beneficial for growth, at least in transition and potentially even in the long term.

Even within the constraints of such a methodology, it is possible to argue that the theoretically optimal capital ratios would be much higher than Basel III standards (Admati, Demarzo, Hellwig and Pfleider, 2010; Miles *et al*, 2011). These findings reflect both the scale of financial and macroeconomic harm produced by banking crises and the fact that the implications of higher bank equity requirements for credit intermediation costs are partially offset by a lower cost of equity (in line with Modigliani and Miller propositions).

But if it is the case, as suggested by Cecchetti and Kharroubi that levels of real economy leverage above some threshold could be adverse for growth: and if we allow for the fact that some bank credit creation results in harmful credit/asset price cycles and resource misallocation, rather than the efficient intermediation of savings to end investors assumed by most models; then the findings of Miles *et al* and Hellwig *et al* apply with yet more force.

It therefore seems at least possible that optimal bank capital ratios – taking into account both financial sector and real economy leverage effects – may be significantly above even Basel III standards. That does not mean it would be

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<sup>7</sup> See for instance the FSB/Basel Committee report *Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements* and Basel Committee report. *An assessment of the long-term economic impact of stronger capital and liquidity requirements*, August 2010.

sensible to impose such higher standards in the near to medium term. The 2007 to 2008 crisis was caused by excess leverage, but deleveraging from those excess levels is a major threat to medium term growth.

The Basel III standards therefore represent a reasonable compromise between long-term optimality and the danger that too rapid progress to higher ratios would exacerbate that deleveraging, depressing economic activity. But we need to recognise that they are a compromise: and that in the long-term they might allow a return to harmful levels of leverage both within the financial system and the real economy. We therefore need to be able to offset any such future increase with other levers.

**(ii) Macro-prudential regulation: should we seek to constrain aggregate economy wide leverage and if so how?**

On the macro-prudential side the issue is whether authorities need to focus not simply on growth rates of credit relative to trend, but on absolute levels of leverage, i.e. debt to income or GDP.

That focus on real economy leverage levels is not yet an accepted element within global or national regulatory regimes. Thus, for instance, the focus of the Basel III guidelines for the application of the countercyclical capital buffer (CCB) is on the rate of growth of credit, not the absolute level of leverage already achieved. The guidelines propose that there should be a presumption in favour of an increase in the CCB when credit growth is running above past trend. But if past trend growth has been faster than nominal GDP growth, growth in line with past trend will produce a steady increase in the level of leverage. And if the findings of Cecchetti and Kharroubi, Schularick and Taylor are confirmed, even a steady increase in debt to

GDP (whether household or corporate) beyond some threshold would be likely to create increasing financial and macroeconomic stability risks.

There is, therefore, a reasonable case that macro-prudential authorities should quite explicitly assess whether levels of private sector leverage are reaching thresholds which carry macro-economic stability risks, and should take steps to constrain such excessive leverage. To do so, they may need to have available a wider range of macro-prudential policy instruments than currently envisaged. These could include not only the CCB, but also levers which more directly constrain real economy leverage such as loan-to-value or preferably loan-to-income limits.<sup>8</sup> They could also entail, as Carmen Reinhart and Kenneth Rogoff have suggested, (Reinhart and Rogoff, 2013) the return to the policy toolkit of direct quantitative levers such as reserve requirements (addressing the fraction from the asset side of the bank balance sheet) which were largely rejected by the developed world's central banks in the several decades prior to the latest financial crisis.<sup>9</sup>

## **FLAWS IN EUROZONE DESIGN**

The Eurozone project is sometimes characterised as the antithesis of financial liberalisation – motivated by a desire to abolish the market signal of exchange rate movements. But, many of the arguments in favour of EMU put forward before its launch were rooted in the same confidence in financial market efficiency and rationality which made global financial deepening and innovation appear so benign.

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<sup>8</sup> Note that the effectiveness of loan-to-value ratios as a macro-prudential tool is undermined by the circularity illustrated in Exhibit 8, with easy credit availability itself driving our property values. Loan-to-income ratio limits more directly constrain aggregate leverage levels.

<sup>9</sup> Arguably such tools may be needed for reasons related as much to macroeconomic demand management as to financial stability. In general indeed both better understanding of the drivers of financial stability and the current deleveraging environment make it increasingly difficult to assume a clear and complete delineation between monetary policy levers and macro-prudential levers.

A crucial argument made for EMU was that, by removing exchange rate risk, it would help complete the single market, facilitating both trade and capital flows. Intra-Eurozone trade would be free of the friction of exchange rate movements: and capital would flow more freely across Eurozone national borders, seeking out highest return opportunities. This it was believed would facilitate convergence of productivity rates and income levels across the currency area. Current account balances, whether surpluses or deficits, would become as irrelevant in Spain or Italy as they are in Florida or California. Thus, for instance, the European Commission's *One Market, One Money* report of 1990 argued that '*a major effect of EMU is that balance of payments constraints will disappear... private markets will finance all viable borrowers, and savings and investment balances will no longer be constraints at the national level.*'<sup>10</sup> (EXHIBIT 15)

These arguments reflected the assumption that freer capital flows within the Eurozone would be beneficial. That assumption was in line with dominant beliefs at global level. Global free movement of capital, long and short term, was seen as an unalloyed good. In 1997 the IMF proposed making a commitment to capital account liberalisation a binding condition of IMF membership, going beyond the commitment to current account convertibility included within the IMF Founding Articles.

In one sense the prediction of *One Market, One Money* turned out to be absolutely right: the removal of exchange rate risks within the Eurozone facilitated a big increase in capital flows and current account imbalances. Spain, Portugal and Greece ran current account deficits which reached 10% of GDP and higher (EXHIBIT 16); Ireland and Italy, previously countries in balance or surplus, also ran

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<sup>10</sup> See Silvia Merler and Jean Pisani-Ferry *Sudden Stops in the Euro Area, Bruegel Policy Contribution*, March 2012 for a review of pre-launch arguments and assumptions.

significant deficits in the pre-crisis period. And the flip side of current account deficits, of course, is capital inflows.

But these capital inflows were not primarily of the sort which *One Market, One Money* envisaged – medium- or long-term capital flows seeking out ‘viable’ business investment opportunities. Instead they were to a significant extent of two forms.

- First, in some countries, capital inflows to fund fiscal deficits, with ‘foreign’ investors (i.e. in many cases from other Eurozone country) increasingly willing to hold the euro denominated bonds of countries running large fiscal deficits. This inflow was underpinned by assessments of public sector credit risk which exhibited the same herd effects which EXHIBIT 4 illustrates on the private side. Even for a country like Greece, which any reasonable analysis would have revealed as facing long-term debt sustainability challenges, spreads above 10-year German bunds fell to a range of 10-30 basis points between 2002 to late 2007 (EXHIBIT 17) before first rising gradually and then soaring in response not to new information but to changed sentiment.
- Second, in other countries, and in particular Spain and Ireland, cross-border bank funding and deposit flows which, alongside domestic credit and money creation, fuelled credit and real estate price cycles of the sort illustrated in EXHIBIT 8 (EXHIBIT 18).

The single market was indeed ‘deepened’ by increased financial flows and financial intensity, but the increased financial flows, far from driving convergence of productivity and income in a sustainable fashion, instead drove major misallocation of resources (e.g. to Greek government expenditure and to the Spanish and Irish construction sectors) and created extreme financial fragility. Those flows then

suddenly stopped and reversed in 2009/10, to be replaced by TARGET2 balances within the euro system, official sector finance replacing unsustainable private flows (EXHIBIT 19).

The Eurozone crisis is therefore in part a story of financial liberalisation gone wrong – of the potentially harmful effects of easier capital flows and easy bank credit creation. Indeed it is a variant of a familiar story: different in precise form because occurring within a multi-nation currency zone, but similar in essence to past emerging market crisis. Prior to the Asian crisis of 1997, countries such as Thailand enjoyed the ‘benefit’ of ‘bonanzas’ of cross-border capital inflows, including via the banking system<sup>11</sup>. These inflows generated a property price boom and, through exchange rate appreciation, drove real wages in the traded sector of the economy to unsustainably high levels. Then when the music stopped, Asian countries suffered ‘sudden stops’ and capital flow reversals. Of course, in those countries what followed were FX reserve drains and devaluations, rather than TARGET2 balance increases: but many of the root causes of the crisis were the same.

Crucial to both crises indeed, was the potential for capital flows, and for bank money and credit creation (whether occurring cross-border or within country) to drive resource misallocation rather than improved efficiency, and to drive instability rather than to reduce risk. Not all financial markets and flows are equally stable or beneficial; equity markets may overshoot but they have far less potential to cause harm than overshooting debt markets: and increasingly we have realised that we need to distinguish within capital flows a hierarchy of likely economic value. A report

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<sup>11</sup> See Carmen Reinhart and Vincent Reinhart, *Capital flow bonanzas :An encompassing view of the past and present* (NBER Paper no. 14321, 2008) for a general discussion of capital flow ‘bonanzas’ and ‘sudden stops’

for the Committee for the Global Financial System (CGFS) in April 2009, for instance, suggested that (EXHIBIT 20)

- foreign direct investment is far more valuable as a driver of economic growth and productivity convergence than more liquid portfolio flows;
- equity portfolio flows are, by definition, more stable as a source of finance than debt (since even if new flows stop, the existing investments are not reversed: i.e. the finance does not need to be rolled over at maturity); and
- while cross-border bank lending is the most volatile form of finance, most likely to surge in exuberant upswings and to suffer sudden stops when markets and bankers take fright (EXHIBIT 21 and 22).

The implication is that liberalisation of short-term capital flows should not be considered axiomatically beneficial in all circumstances. And, that the idea that introducing a European single currency was bound to produce allocative efficiency benefits as a result of freer capital flows was too simplistic.

These conclusions suggest (at least) three questions.

**(iii) How much federalism is needed to make the Eurozone sustainable and successful?**

It is now generally accepted that for the Eurozone to be a successful currency union it will have to progress toward significantly greater federalism, becoming as some would put it a true economic as well as a currency union. A crucial reason why that federalism is required, largely overlooked in discussions of the merits of EMU before its launch (and overlooked by both proponents and opponents) relates to the banking system. The flawed design of the Eurozone creates the possibility of a potentially



fatal embrace between banks and sovereign solvency, and maximizes the danger that harmful credit bonanzas will be followed by particularly extreme and all-encompassing sudden stops.

The current architecture of the Eurozone is unsustainable. It is a single currency zone, with a single central bank, but with almost all fiscal resources and all fiscal debt residing at the level of what Charles Goodhart has labelled 'subsidiary sovereign' states i.e. states which are not currency issuing powers and which do not therefore have the capacity (through the ultimate weapon of potential monetisation) to make their fiscal debt free in nominal terms (Goodhart, 2011). As a result a potentially fatal inter-linkage has been created between (sub) sovereign solvency and bank solvency. If banks get into trouble, sovereign finances can be threatened both by the fiscal demands of bank re-capitalisation and by the macroeconomic consequences of sudden stops in new credit supply. But the banks themselves hold as their supposedly risk-free liquid assets, large portfolios of domestic sovereign bonds.

The equivalent in the US single currency / single market would be if (i) banks which happen to be located in Illinois held large and undiversified portfolios of Illinois State bonds; (ii) there were no Federal Deposit Insurance corporation but instead individual state systems; and (iii) Illinois State was expected to rescue large banks headquartered in Illinois if the alternative of bank failure was systemically dangerous. If such a system were proposed in the US, it would be dismissed as not just dangerous but absurd.

The inter-linkage within the Eurozone between sovereign and bank solvency concerns contributes to a vital difference between the Eurozone and the US single

currency zones – the fact that whereas in the US the universal assumption is that monetary union is perpetual, in the Eurozone a probability of breakup remains. That in turn explains why ‘sudden stops’ in capital flow or domestic credit supply within the Eurozone can be so extreme and all- encompassing. In the U.S., single currency market, there is no presumption that all California companies will face higher credit spreads simply because the California economy is depressed or Californian state finances under severe stress. As *One Market, One Money* put it, a ‘viable’ business in California would always be able to get finance at an interest rate appropriate to its specific business risks, even if there were risks that the Californian state might default on its debts.

In the currently vulnerable Eurozone peripheral countries, by contrast, concerns about (sub) sovereign solvency carry implications for credit pricing and supply availability for almost all counterparties. The sudden stop in credit supply and capital flows is therefore more extreme, exacerbating the credit/asset price cycle and the economic downswing.

The structural design of the Eurozone has thus managed both to facilitate unsustainable capital flows and credit creation before the crisis and to exacerbate the scale and harmful impact of sudden stop and credit crunch affects once sentiment changed.

The current structure is therefore not tenable. And it is clear that one of the most important reforms required to make it tenable is a true ‘banking union’ which can cut the potentially fatal link between (sub) sovereign and banking system solvency. (EXHIBIT 23) Such a union needs to combine both the central supervision of major banks and the ability directly to recapitalise banks with central (i.e. Eurozone level)

resources, if that is needed to prevent a cycle of deteriorating banking system and sovereign solvency, and/or a self-reinforcing downswing of credit supply and asset prices.

Arguably however such reform will only be effective if also combined with some measure of fiscal federalism, since:

- The creation of Eurobonds, issued at a federal/full sovereign rather than subsidiary sovereign level, may be the only way to create an asset permanently perceived as risk free in nominal terms and therefore appropriate as the risk free liquid asset held by the banking system.
- And some limited but still material level of federal fiscal resources and expenditures will arguably be needed, both to provide resources for direct bank recapitalisation if needed and to allow for the operation of some automatic countercyclical fiscal stabilizers, shifting resources from above trend to below trend countries, and thus offsetting to a degree the potential impact of credit/asset price cycles.

These measures are essential to make the Eurozone a potentially stable and thus permanent currency union. In such a union capital flows would be facilitated, as *One Market, One Money* proposed, by the permanent absence of exchange rate risk, and would be less likely to be subject to the across the board sudden stops which we saw in 2009 to 2010. But such a system would still be susceptible to the potentially destabilising impact of credit and asset price cycles, whether operating at the pan-Eurozone or national level. A strong macro-prudential focus, and the potential to use strong macro-prudential levers of the sort discussed under question (ii) above, would therefore be essential.

An interesting question is whether such macro-prudential levers should be applied at the pan-Eurozone or national level. The long-term logic of currency union may appear to suggest a pan Eurozone approach: and if the sovereign/bank solvency link is definitively cut, the danger that sudden stops will be all encompassing will be greatly reduced.

Conversely however, the extremely diverse experience of the pre-crisis period, with extreme credit and property booms in Spain and Ireland but none in Germany, argues for the ability to deploy those levers at national as well as at pan-Eurozone level.

**(iv) Are we unnecessarily worried about the ‘fragmentation’ of global banking?**

Before the crisis, financial globalisation was lauded as a driver of increased economic efficiency. Since the crisis we have tightened bank capital and liquidity regulations and increased the intensity of bank supervision. As we have progressed these reforms, concerns have been expressed – both by industry bodies and by some policy makers – that poorly designed responses and/or pressure from national supervisors, might lead to a fragmentation of the global banking market. In particular, fears are expressed that

- pressure from home supervisors (and from finance ministries) may encourage banks to focus deleveraging on ‘foreign’ operations, in order to preserve lending capacity in the home national economy;

- host national supervisors may encourage/require subsidiarisation of local banking operations, and impose local capital and liquidity requirements which ‘trap’ capital and liquidity at sub-group level.

Clearly the first of these effects (sometimes labelled ‘financial protectionism’ or ‘mercantilism’) could have a harmful effect on credit supply in host countries. But whether the second effect is actually concerning can be open to debate.

It is obviously the case that cross-border flows of capital in the form of bank lending will be most easy to execute if major banking groups are free to organise their global business on the basis of single pools of capital and liquidity.

But if, as illustrated by EXHIBIT 20 and 21, and as described in the CGFS 2009 report, cross-border bank lending is the most volatile of capital flows, most susceptible to exuberant surges and sudden stops, then it is not clear that maximising the ease of cross-border bank lending flows is an appropriate policy objective.

An important issue for financial regulators is therefore the possible implications for ease of capital flow, and for different categories of capital flow, of different legal structures for bank cross border operation. This issue has not been extensively explored, and the empirical evidence is unclear: the BIS data on cross border bank lending flows, for instance, do not enable us to distinguish the level or volatility of cross border lending arising via branches and via subsidiaries. But theory and anecdotal empirical evidence may provide us with some insights.

- In theory it is clear that subsidiarisation does not make bank intermediation of capital flows impossible but changes the structural form and as a result

perhaps the maturity characteristics and likely volatility. Thus, while opponents of subsidiarisation sometimes imply that it would require all lending in a country to be financed by local depositors/creditors in that country, a foreign bank subsidiary can still be the recipient of interbank placements or long-term loans from abroad (whether from the parent or from other banks) and can issue debt securities which are held by foreign investors. There is at least a prima facie case that such capital flows might be more stable than those that arise via bank branches.

- And empirically, authorities in some non-European emerging economies (in particular from Latin America) have argued that amid the market turmoil of late 2008, foreign banks operating as branches in their countries were more likely rapidly to cut back credit extension, creating localized liquidity strains and harmfully limiting credit to the local economy. Conversely they suggested that foreign banks operating a subsidiaries supported more stable capital flows.

Requiring subsidiarisation may therefore be an appropriate policy tool through which countries (in particular emerging economies) can encourage steady rather than volatile capital inflows. In general, a more nuanced approach to the benefits and disadvantages of short-term capital flows suggests that countries should consider the use of macro-prudential tools to offset harmful short term bonanza effects. Subsidiarisation and local bank capital and liquidity requirements may be one such tool.

This issue however, merits further detailed investigation. Different categories of cross-border bank lending may be more or less volatile and more or less important to economic growth. If subsidiarisation requirements (or other macro-prudential

constraint) reduce the ease of cross-border bank finance of real estate booms, that may be beneficial. If they restrict the ability of major banks to provide trade finance, economic harm may result.

'Fragmentation' may be beneficial in some respects but harmful in others. A more granular understanding of the implications of bank structures for different categories of credit supply is essential, taking us beyond high-level assertions about the 'benefits of financial globalisation'.

**(v) Is the single market right to branch across European Union desirable?**

Finally let me pose what to many in the European Commission would seem a heretical question – should national regulators be allowed to require that banks operate as subsidiaries not branches even within the single European market?

To pose that question seems to cast doubt on the benefits of the European single market in banking. And at present, European single market rules are clear: banks from one member state have an absolute right to operate as branches in other member states, just as companies in other sectors of the economy – retailing, manufacturing, hotel operators or whatever – have the right to establish business operations without constraints.

But my key theme in this lecture is that banks are different and that the assumption that fully free markets will necessarily produce beneficial effects is much less secure in banking than in other sectors of the economy.

Cross-border branching can produce harmful effects as well as positive. The fact that Anglo-Irish bank was free to operate as a branch in the UK increased the ease and

speed with which it was able to grow deposits from the UK market in the pre-crisis years. Those deposits helped fund rapid lending growth, including in Ireland. But that cross-border funding did not enhance economic efficiency through the allocation of capital to the 'viable' businesses and superior investment opportunities which *One Market, One Money* envisaged: it contributed to a harmful credit and asset price boom.

The apparent macro-economic argument in favour of maximum ease of bank operations across the European single market can therefore be challenged.

In addition, there may be customer protection arguments for restricting the right of major retail banks to operate in other countries as branches. Depositors at branches of non-domestic banks are dependent on the foreign home country authorities for the quality of prudential supervision and for the availability of deposit insurance or fiscal backstops to solvency. In the UK it was clear at the time of the Icelandic bank failures, that many customers did not understand that. Since then in the UK we have taken extensive measures to ensure that retail depositors at the UK branches of foreign EU 27 banks are aware of their reliance on the home country authorities and resources. In the environment of current concern about the Eurozone, it is likely that awareness is now very high. But if and when normal times return, the dangers of customer misunderstanding may also return.

There is therefore, I believe, a reasonable case for giving national authorities within the European Union the power to require banks from other European Union countries to operate as subsidiaries not branches, a power which they would likely want to use in respect to bank operations which took significant retail deposits.



That would still allow foreign banks to bring the benefits of competition – new skills and new approaches – to domestic markets. Santander UK operates as a subsidiary. And it would still make possible cross-border capital flows: as discussed under question (iv) above, subsidiaries can be financed in part by, for instance, medium-term debt securities held by investors in other countries. But it would require banks wishing to operate on a large scale in retail markets to commit the capital and liquidity required to ensure long-term stable operations.

There may therefore, I suggest, be a major distinction between the appropriate approach within the Eurozone and outside the Eurozone but within the EU27. Within the Eurozone, the relentless logic of integration will require significant federalism – of fiscal resources and government debt issuance as well as of bank supervision – to ensure that free movement of capital within a single currency zone does not produce the same extreme bonanzas and then sudden stops that we have observed over the last decade. Outside the Eurozone, but within the EU27, perhaps we should be willing to accept that retail banking is a market which requires a different approach than applicable in other sectors of the economy.

### **CONCLUDING REMARKS: A common theme**

I began my remarks this afternoon by posing five questions. They may have seemed diverse in nature – each interesting, but not clearly related. But I hope I have shown that there is a common theme, which is that financial markets are different from other markets and that banking in particular – with its ability to create private credit and money – creates specific and inherent risks.

We cannot rely on free market forces to ensure that the level of leverage in the economy created by freely competitive banks is optimal. Nor can we assume that cross-border capital flows will always achieve the efficient allocation of capital to 'viable' business opportunities. Both our decisions on micro and macro-prudential regulation, and on the design of the Eurozone single currency and the Eurozone single market, need to reflect, as they did not in the past, a fundamental reflection on the ways in which the impact of financial markets, debt contracts, fractional reserve banks, and short-term capital flows, diverge from that suggested by neoclassical assumptions of beneficial market completion.

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