



Discussion Paper

Taming Finance by Empowering Regulators A Survey of Policies, Politics and Possibilities*

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POVERTY REDUCTION





Taming Finance by Empowering Regulators

A Survey of Policies, Politics and Possibilities*

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Abstract

This paper examines important and desirable reforms of the international financial regulatory and taxation architecture, both from the perspective of their technical desirability and their political feasibility. The paper provides insights into how to increase the chances that desirable changes in the financial and taxation architecture will actually happen. In providing a map on the prospects of financial reform, the paper identifies the main political and technical hazards to be navigated. To do so, and pinpoint the key dangers, the paper employs Albert Hirschmann's framework for understanding negative reactions to reform agendas. We conclude by stressing that the need for reform is vital given the threat financial crises pose to development and poverty reduction.

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1. Introduction

The illusion that financial markets are efficient, and that they need little or no regulation has been shattered. This paper explores how - especially through regulation, but also through taxation - they can be transformed so they serve the real economy and do not cause frequent crises.

The global financial and economic crisis that the world is currently suffering has its origins in the financial sector. Contrary to other recent more regional financial crises in the developing world (Latin America, Asia), this event started in 2007 at the centre of the capitalist system: the US financial sector. The speed, at which its effects have spread, has had deep impacts on the real sectors of many countries around the world (GDP contraction), as well as very negative social effects, such as increased unemployment and poverty (or a slowing of the pace of poverty reduction).

Contrary to the Great Depression, the first global economic crisis of the previous century, which also originated in the US financial sector, this time the initial reaction of governments was quick and well-oriented. There has been an open search for new economic ideas and there have been reflections on the reliability of economic models. Economists now also have more tools to understand the problems. Macroeconomic statistics are readily available, and a wider range of economic policy instruments can be used to manage crises. Above all, the fear of repeating the 1930s propelled policy-makers and politicians initially to use additional policy instruments to avoid a major recession. The significance of Asia (and especially China and India) in the world economy, and their governments' ability, as well as willingness, to maintain high levels of economic growth, also supported global economic growth.

The use of public resources to save the financial system and to provide stimulus to aggregate demand does not provide solutions to the problems that caused the financial crisis. There exists now a growing consensus among politicians, policy-makers and public opinion in many countries about an excessive growth of the financial sector. Some new financial instruments are useful for economic agents to cover for risks, but most of the large growth of the financial sector stems from extremely short-term speculative transactions, which are barely productive and have an enormous potential to distort markets and exacerbate crises.

A financial sector with almost no regulation and no taxes (and no prohibition of socially harmful instruments) is an anomaly in modern economies if compared to any other productive sector. Consumers who buy any type of goods and services pay indirect taxes on the transactions (especially through VAT, which, given its widespread implementation, represents the tax revolution of the past thirty years). On the other hand, the obligation to pay taxes is an instrument for governments to have information about the volume of transactions in a market, and a legal validation of a transaction (IDEAS, 2010). Apart from banks, which constitute the only financial sub-sector that is subject to detailed supervision and regulation, many financial actors and transactions (the so-called 'shadow banking system') are mostly unregulated. They are also largely outside the indirect taxation system. Therefore, large parts of the global financial system (such as over-the-counter derivatives) are more or less unknown to governments (there is no information about the transactions that are not done through organized markets).

The turmoil in EU debt markets during April/May 2010, with strong speculative attacks against Greece and other countries' sovereign debt, accompanied by a strong volatility in the stock markets and large pressure on the euro, demonstrated the enormous potential for harm the financial sector can do to the real economy. Developing countries have suffered such speculative attacks many times and their use of capital controls, once dismissed as anti-globalization, has been praised by some of our more conservative international institutions. What this all points to is the need for comprehensive regulation, complemented by taxation. Some analysts argue that good financial regulation and taxation on the financial sector compete with each other as alternative instruments. The reality is the opposite. By providing better data, taxation will facilitate superior regulation. A third policy tool is banning certain instruments, whose net welfare effects are clearly negative, particularly where some small microeconomic benefits are clearly outweighed by a significant increase in systemic risk

which they generate, which implies increasing the probability of costly financial crises. An alternative to banning is trying to segregate certain activities from basic banking, as was so successfully done in Glass-Steagall in the 1930s, and is attempted in the 2010 US legislation,

The global economic crisis has again shown that when the financial sector of a country is in crisis the real economy suffers. Economic problems are amplified by credit crunches, loss of wealth effects and confidence. The most vulnerable people, both in that country and in the rest of the world, are then usually affected most by such crises, even though they have been innocent bystanders.

What should be the role of a financial sector? This sector should perform several crucial functions.

A. The more traditional ones are:

1. **To channel efficiently resources** from agents who save to those who require financing (individual entrepreneurs with new projects, or requiring working capital, companies expanding their business, governments issuing public debt, households that need to buy housing;
2. **To screen projects that demand financing** and finance only those which are likely to be viable and profitable.

B. Additional functions are characteristic of more modern economies

1. **To provide liquidity** to investors who own financial assets;
2. **To create risk-coverage instruments** for economic agents.

A financial sector can be deemed efficient when it performs all these functions satisfactorily without collapsing into crisis on a regular basis. Its primary role of channelling resources from savers to real investors is a necessary condition for any economy to work, but modern financial sectors have evolved to offer more sophisticated financing and insurance products for agents who no longer operate with a regional/national perspective, but in globalized markets.

There is a wide consensus that some financial innovations have been welfare increasing, but critics rightly point out that the oversized financial sector that we have witnessed during the last decade - with its activity and profits growing at rates enormously bigger than those of real economies - is a signal that some parts of the financial system may be generating activities that are only marginally productive. Moreover, the potential destabilizing effects of some forms of financial trading for real economies need to be considered. As a result, the net effect of parts of the financial sector may be socially negative. As we have seen with the recent crisis, when the financial sector becomes a 'threat to the sovereign' in making huge demands on public resources, and that then has knock-on effects for the state's capacity to provide welfare, we can talk about imbalanced priorities and raise the question of how to tax finance.

This paper will examine some important desirable reforms of the international financial regulatory and taxation architecture, both from the perspective of their technical desirability and their political feasibility. The paper provides a survey of current changes (especially in the US) and also provides insights into how to increase the chances that desirable changes in the financial and taxation architecture will actually happen. This is an urgent task, as frequent financial crises threaten to derail development and poverty reduction. This global crisis has had negative effects on developing countries' growth and poverty reduction, even though these countries did not contribute to causing it (for an early assessment of the impacts, see Griffith-Jones and Ocampo, 2009)

Though we are focussing on specific policy measures, where we have been involved closely in the debates (especially on financial transactions taxes, but also on some aspects of regulation) and therefore have a bit of an insider perspective, we will try to give elements to develop a methodology that could be helpful for analyzing other desirable changes.¹

¹ Stephany Griffith-Jones has been engaged in many commissions and key debates on the reform of the international financial

The paper is structured as follows. Following this introduction, we will, look at the political and economic determinants of reforming finance. In section 3, we analyze taxation on financial transactions. Section 4 looks at regulation of the financial sector. It starts by examining why regulation has failed in the past. It then looks at regulatory gaps, especially the lack of regulation of the growing shadow banking system; it then examines in depth one major challenge of regulation - the need for it to be countercyclical - and the discussion so far on this. The section finishes with a fairly detailed analysis and evaluation of the major US regulatory reform, via the very important reform represented by the Dodd-Frank law in the US Congress, passed in July 2010 as the paper was being finalized. Section 5 offers brief conclusions.

2. The Determinants of Reforming Finance

Recent attempts on a global and national level to regulate finance are characterized by “reportology”, which we understand at least partly as a tactical device of international and national governance bodies. Statements of principle by the G20 and detailed reports by international bodies such as the Basel Committee on Banking Supervision and the Financial Stability Board (FSB) are valuable in outlining the right objectives and pointing to directions for desirable reform, but they lack often a concrete road map for action. On a global level, the lack of a full legislative and executive body, and the complexity of reaching agreement among regulators of different countries and financial sectors can partly explain this conundrum. The resistance of the financial sector to such changes is clearly an important factor, as discussed below.

On the global level until now we thus have a lot of rhetoric and good studies (FSB and G20), but very little rule-making and, in terms of actual regulation, action at the global level seems relatively weak.

FIGURE 1

Political Time Horizons and Financial Regulation

	Short	Long
Public	Politicians	Regulators
Private	Financial Institutions	Citizens

Source: Seabrooke and Tsingou, 2009a, 458.

At the national level, the problem of competition among countries provides a serious political constraint that is extremely difficult to resolve nationally as Treasuries and Central Banks, lobbied by their financial sectors, tend to defend the perceived short-term competitiveness of their domestic financial systems. The figure above provides one explanation of why this has happened. In the figure we see a separation of public and private interests and their ‘political time horizons’ in terms of their short or long-term interests in the financial system and its link to the real economy. In the top left we have politicians, who in democracies have a strong interest in boosting economic growth any way they can to enhance their potential for re-election and the success of their party. In the bottom left we have financial institutions, which have a strong interest in generating profits in the short term (especially in shareholder systems of capitalism). In the top right we have regulators, who have a public interest in maintaining long-term sustainable economic growth. In the bottom right we have citizens who, be they homeowners or otherwise, have a strong interest in the long-term viability of the real economy, the future use of their savings, and in avoiding too much indebtedness lest they go bankrupt. During the recent boom period financial institutions spent a great deal of time dragging the regulators down into their quadrant, through regulatory

architecture in the past two years, such as the International Task Force on International Financial Transactions for Development and the Warwick Commission, as well as leading extensive work on financial regulation at the Initiative for Policy Dialogue (www.policydialogue.org); Leonard Seabrooke was Director of the Warwick Commission on International Financial Reform - <http://www2.warwick.ac.uk/research/warwickcommission/>

capture. Politicians also had an interest in this to artificially spur growth (see also the Warwick Commission, 2009). Even some citizens had an interest in this, particularly those able to profit from short-term asset bubbles. The regulators were placed in a position in which the financial system became more and more complicated, and where politicians either denied or reduced their autonomy in their capacity to pop asset bubbles sooner rather than later.

These political dynamics provide ongoing constraints to comprehensive international reform, given that global regulatory proposals are most commonly evaluated from the standpoint of national preferences. As Eatwell and Taylor (2000) have pointed out, many financial markets are global and therefore if you do not regulate globally you put regulators at a disadvantage in relation to private financial markets, due to problems of regulatory arbitrage that imply that financial activity moves to countries and centres that are least regulated. While countries are unwilling to give up national sovereignty, they on the whole do not realize that in fact pooling national sovereignty would actually increase their collective sovereignty and regulatory power in relation to global markets (Griffith-Jones, 2009; cf. Persaud, 2010).

While regulation on a global level is therefore very important, recent developments, for example around Basel 3, are discouraging. This may change if towards the end of 2010, as has been announced is possible, the Basel banking regulations are seriously reformed, with significant increases in requirements on capital, provisions, leverage and liquidity. Due to this lack of action at the global level, we focus in this study more on national regulation, where more action is being taken. To evaluate the current developments, we are focusing on regulatory reforms in the US, which is the biggest national financial market in the world, the trend-setter in the recent past in terms of financial regulation, and which has seen more regulatory action than Europe.

In the analysis we will try to distinguish (see matrix below in the section on the US) between: a) technically desirable reforms, such as achieving a financial transactions tax or the need for comprehensive and countercyclical financial regulation; b) their rhetorical acceptance by international or national relevant bodies; c) actual adoption by relevant bodies of regulatory changes that imply, for example, comprehensive and counter-cyclical regulation; and d) their adequate implementation, via supervision, to ensure that regulation is not avoided .

There seem to be three main determinants for achieving meaningful reform. The first is the intellectual discourse and paradigm dominant at the time. This is particularly the case for global financial-market governance, which relies in its rule-making heavily on legitimate rules, given that it is a form of governance without corresponding global government (Underhill and Zhang, 2006: 8; Keohane ,2002). The second, and probably the most important, determinant of the ability to do meaningful reform is the power of vested interests opposed to reforms (as well as the degree of mobilization of forces in favour of reform). In the case of financial reform, financial interests became extremely powerful during the boom and continue to have a great deal of influence on policy-making, blocking much effective public action for regulation and even transparency of financial markets. The extent of the influence that the financial actors had over, for example, central banks and regulators, can even be characterized in some cases as “regulatory capture” (see, for example Griffith-Jones and Persaud, 2008; Tsingou, 2010; Baker, 2006). The third determinant is the stage of the cycle, particularly the proximity or distance in time to a major crisis. Thus, if a financial crisis has not occurred for a long time in a country, there will be an element of “disaster myopia” (Guttentag and Herring, 1986). If crises seem distant and, therefore unlikely, there seems no need, for example, to establish effective regulation to prevent crises or official liquidity mechanisms - as well as orderly debt workout mechanisms - to better manage crises. As the popular expression goes “If it ain’t broke, don’t fix it”. The best moment for effective financial reform is potentially during the crisis, or in its immediate aftermath, when financial interests are weakest. Indeed, as they are near bankruptcy they are often being massively bailed out by the public sector - that is, indirectly by the rest of the population - which is also suffering the economic and social impact of the crisis.

There is an apparent Catch 22 in the ability to carry out effective reform. On the one hand, during the initial phases of the crisis policy-makers are overwhelmed by fire-fighting. On the other hand, as “green shoots” of economic recovery emerge, the argument is made that too strong financial regulation could not just endanger the still-fragile financial sector, but more importantly reduce its ability to provide credit for financing economic recovery, and therefore would be perverse. This

argument is, for example, being deployed by the financial industry to combat meaningful changes in the Basel 3 banking regulation of capital adequacy. In practice, this is largely a false dilemma - good regulation can be agreed during or in the aftermath of the crisis, when political appetite is greatest, and implemented once the recovery is in place. However, financial interests and those opposed to change tend to manipulate the discussion to make it seem impossible to introduce good regulation in any of the phases: it is unnecessary in the boom, and perverse in the bust as will undermine recovery.

A key obstacle to meaningful reform is challenging a strong belief in the efficiency of free markets, even in the light of clear empirical evidence and important theoretical analysis that financial markets are imperfect. The crisis has made this point evident to many, but achieving a change in belief systems is particularly tough - and especially in highly finance-dominated economies, such as those of most Anglophone countries. Within this broad and overarching intellectual commitment to liberalized and unregulated financial markets, it is important to stress that more specific arguments were deployed to argue against desirable change. In this sense, it is interesting to highlight that similar arguments have been deployed in the past against other progressive reforms. Albert Hirschmann's study of reform responses in *The Rhetoric of Reaction* provides a framework we can easily apply to improve our understanding. Hirschman (1991) analyzes three arguments used through several centuries by conservatives to fight against different progressive reforms. Similar arguments are often deployed against reforms of the international financial architecture, so it seems valuable to analyze them in some detail. These three theses are: the *perversity* thesis which says that any reform to improve some feature of the economic structure only serves to make matters worse, exacerbating the problem one wishes to remedy; the *futility* thesis which holds that attempts at reforms will have no effect at all; and finally, the *jeopardy* thesis which argues that the cost of the proposed reforms is excessive as it endangers previous valuable accomplishment.

The perversity argument works as follows.² Conservatives who do not favour reform do not launch an all-out attack on the objective of the reform, in our case financial stability. Instead, they will formally endorse it, but then try to prove that the action proposed or taken is badly conceived; they will argue that such action will cause, due to "a chain of unintended consequences, the exact contrary of the objective pursued" (Hirschman, op. cit.). The "well-intentioned" attempt to push society in a particular direction will, according to this argument, result in it moving but in the opposite direction. The power of financial actors to influence outcomes allows them in the short term to show the correctness of this "perverseness" argument if they can make it self-fulfilling.

The "perversity" thesis is steeped in the thinking that the economy works a particular way, in a natural sense. This is dominated by the idea of the "invisible hand" doctrine of Adam Smith.

Once this idea becomes accepted, any public policy aiming to change market outcomes, such as regulation, implies interfering with "beneficent equilibrating processes". This doctrine is particularly badly suited for characterizing financial markets, which are so riddled with imperfections, leading to bad outcomes (for very powerful critiques of the efficiency theory of financial markets, see Keynes, 1936, Minsky, 1986, and Stiglitz and Weiss, 1981).

We suggest that it is absurd to *only* assume, as do the supporters of the perversity thesis, that the outcomes are predictable by being always negative. Many unintended consequences or side effects of policy actions can be *welcome*. Hirschman provides the example that compulsory public education had the unintended but largely positive unintended effect of enabling more women to become employed. Similarly, in the financial field, imposing a financial transaction tax could have positive effects on transparency, as it would require greater information on financial transactions, which in turn could facilitate regulatory and supervisory oversight (see IDEAS, op. cit). Furthermore, even if a policy action has some negative effects, its net result may still be positive. Thus, often financial regulation is opposed because it would have negative micro-economic impacts; for example, standardizing derivative contracts so they go on formal exchanges could limit benefits for some producers who will be less able to do perfect hedging of their activities (for example, exporters of a

² Hirschman, op. cit., calls them, more strongly, "reactionaries", a term which originally had no derogatory meaning; it originated from Isaac Newton's law of motion, which states that "to every action, there is always opposed an equal reaction".

certain variety of coffee), though they will be able to hedge against some fairly good proxy. However, these micro-economic costs would be vastly smaller than the benefits for financial stability that would arise from having standardized derivative contracts that can go through exchanges.

The second argument used against reforms is that they will have no effect at all - the futility thesis. Because any change will just affect the surface, it will have no effect, as the “underlying” structure remains totally untouched. The futility thesis is often presented as a “law” ruling the social world, that “plus ça change, plus c’est la même chose.” In the case of the financial sector, it is argued that regulation or taxation will be totally ineffective, because it will be avoided or evaded. This implies that the financial sector is all powerful (and therefore above the law) and totally globalized, so it can escape any national regulations or taxation. Clearly this is not true. Financial markets are a social construct, influenced by existing laws and regulations. As these have changed through time, so has the nature of financial markets (Abdelal, 2007). As with any social construct embedded in society, financial markets and their behaviour, can be modified. This can be done, for example, by forbidding actors in certain segments or countries from participating in other segments, for example the Glass-Steagall Act, or segmenting markets between countries, for example via capital regulations. It is important that regulations are smartly designed so they minimize the chances of the financial actors outflanking the reform.

Furthermore, certain financial activity can be placed in the public domain as, for example, is the case of public development banks. Even if banking markets are private, they can be regulated, either directly (via limiting the growth of their credit as was the case in the post-World War II era for several decades) or indirectly, via solvency and liquidity requirements. Instead of futility, a more nuanced thesis would be to argue that the behaviour of financial market is difficult to change, as certain intrinsic characteristics lead to patterns that are similar over time, such as their boom-bust behaviour. However, once such historical patterns are identified, it is easier to design measures that are likely to change such undesirable features. In this case, to counteract boom-bust patterns counter-cyclical regulation seems a valuable tool (Griffith-Jones and Ocampo, 2009; Baker, 2010; BIS Annual Report 2010; as well as detailed discussion below).

A third argument against policy action, the jeopardy thesis, argues that the proposed change, though perhaps desirable in itself, implies unacceptable costs or consequences. An influential example of the jeopardy thesis is Hayek’s argument in the *Road to Serfdom* that the Welfare State, whilst it may have desirable features, implies “government interference with the market” that destroys liberty and democracy. Hayek argued that democracy is only possible when the state limits its actions only to those that everyone can agree on.

The jeopardy thesis is often used in the case of financial markets. The achievements described are not merely real ones (like previously providing mortgages successfully for long periods, which widened home ownership to middle- and even lower-income families (see Seabrooke, 2006), but also abstract ones, like the supposed efficiency of financial markets. The latter point is often presented more as an argument of faith, rather than reflecting real achievements.

More specifically, arguments against regulation or taxation of financial and capital markets often make the case that this will undermine the financial sector’s ability to provide credit to finance economic growth. This is a valid concern, if banks, for example, do provide credit. There may also be cases when regulations could actually reduce banks’ ability to finance certain activities; for example, regulating maturity mismatches (essential for ensuring financial stability, and avoiding crises) may make it more difficult for certain financial agents to lend long term. The solution is not however, to maintain harmful maturity mismatches; it can either be to encourage or incentivise those with long-term liabilities, for example pension funds, to take on more long-term assets (see, Warwick Commission, 2009) or to use other instruments (for example, provision of public guarantees or public loans) to finance investment requiring long-term funding.

Finally, it should be mentioned that the use - and effectiveness - of the jeopardy argument is one that should be linked to the distance from a large financial crisis. If financial markets are performing well, there may be unwillingness to “jeopardize” their achievements. In the aftermath of a serious financial crisis, such as in the 1930s or recently, it seems absurd to use this argument, though surprisingly it is still deployed albeit with far less convincing effect.

For some time there have been various proposals for “innovative sources of financing” that would both meet the goal of official development assistance of the United Nations (0.7% of gross national income of industrialized countries) and help finance the provision of global public goods. This topic has been explored in academic terms (see, among others, the essays collected in Atkinson, 2005 and, most recently, Brassett, 2010) and has received support in several UN summits since 2000, including the Monterrey Summit and the Summit of World Leaders for Action against Hunger and Poverty held at the United Nations in 2004.

Some innovative sources have begun to be adopted by some countries, such as a tax on airline tickets and issuing bonds backed by expected flows of official development assistance (the so-called international finance facility). In both cases, these resources have been used to fund international initiatives in the field of public health.

The global financial crisis has sparked a surge of interest in financial transactions taxes, which have received increasing support not only from civil society but also from several governments in industrialized countries. Most of these proposals relate especially to financial transactions taxes as a way to mobilize resources for development and climate change. However, some of these proposals also relate to the need to discourage systemic risk and encourage financial stability. Also, even if their aim is focussed on revenue-raising, financial transaction taxes may, for example, improve transparency, which is good for financial stability. It is particularly for these latter reasons that we include the analysis of financial transactions taxes in this study. Such proposals either relate to specific financial transactions (for example, foreign exchange) or to all financial transactions.

Proposals for financial taxes recently received support in the UK - which is the base for the world’s largest financial centre for foreign exchange transactions - from the former Prime Minister, Gordon Brown, and the head of financial regulation, Lord Turner. The leaders of France and Germany have also given significant support to this idea (most recently in the lead up to the G20 meeting in Toronto in June 2010). There has also been strong support in other European countries like Spain, Norway and Belgium, as well as in Japan, and from the Speaker of the US House of Representatives. Indeed both France and Belgium have already passed legislation to implement such a tax, should it be implemented multilaterally.

There are several important reasons for strong support for a tax on financial transactions. First, even a small tax (half a basis point, or 0.005%) applied, for example, only to foreign-exchange transactions of major currencies could generate a significant amount: more than \$30 billion annually (see in this respect, Schmidt, 2008; Spratt, 2006). For the most recent estimates, see Taskforce on International Financial Transactions for Development (TIFTD, 2010). These resources are critical at a time when the global crisis has caused a significant increase in deficits and public debt levels in developed countries, which reduces the possibility of achieving the goals of official development assistance. And this at a time when the crisis has also increased poverty in many developing countries, making it harder to meet the Millennium Development Goals (Ocampo, Griffith-Jones et al, 2010). In addition, governments around the world need to find additional resources to finance investments in developing countries to combat climate change, while the global financial crisis makes it less likely that the private sector will finance such investments. An added attraction of a tax on large currency transactions is that a high proportion of such transactions are made by people of high income or by specialized financial agents, including hedge funds. Therefore the tax seems likely to be more progressive than other taxes. Possible disadvantages, argued by opponents of such a tax, like a reduction in liquidity in currency markets, should not be relevant provided the tax is very small, as indeed is proposed. Indeed, such a tax would be far smaller than the commissions and spreads charged by financial institutions for such transactions.

The second reason why it seems increasingly more attractive to tax or put a levy on financial transactions, and particularly currency transactions, is that such a levy is facilitated now by the existence of highly centralized and automated clearing and settlement houses. The use of these systems would reduce the costs of collection and reduce the risk of a significant evasion.

A third reason is that, at the moment, political support for such a levy could be mobilized, given the widespread perception that the behaviour of the financial sector has been one of the root causes of the current crisis. Further to this, if the levy were small, it would not significantly affect the functioning of currency markets or significantly reduce the volume of their activities, particularly those related to the real economy (but see below).

There is also a long tradition of taxing financial transactions nationally, including in the United Kingdom which has a very effective stamp duty on all stock sales of 0.5%, or 100 times above the proposed tax to be applied to large currency transactions. Stamp duties on mortgage transactions and certain other financial transactions are normal in many countries, including the United States. In Latin America, several countries have used for many years taxes or levies on internal financial transactions and sometimes on external ones; Brazil and Argentina are the most prominent cases. Overall, over 30 countries around the world have implemented unilateral financial transactions taxes. Some observers have noted, moreover, that not taxing currency markets, despite their large volume, is a real anomaly, which must be corrected (Spratt, 2006; IDEAS, 2010). The reserve requirements on capital inflows, applied at different times by Spain, Chile and Colombia have had similar effects (and, indeed, in some of these cases can be replaced by an equivalent payment of the opportunity cost) and thus can be seen as substitutes for taxes on certain currency transactions. Taxes or prudential regulation on inflows are again becoming very common in 2010 - for example, in Indonesia, the Republic of Korea and Brazil - as capital flows, especially short-term ones, are flooding into some developing countries. Indeed the issue of segmenting countries, at least very partially, from integration into global capital and banking markets is one that perhaps should become part of a discussion on prudential regulation for financial stability in developing countries.

It should be noted, moreover, that the proposed financial transaction taxes have a long and distinguished history of theoretical tradition. At least since Pigou (1920) it has been recognized that there is a need to correct, through taxes, the difference between the public and private marginal benefits of a particular economic activity that are generated by the negative externalities over other activities. John Maynard Keynes, in his *General Theory*, more specifically proposed a small tax on financial transactions, especially in the stock markets, to mitigate the volatility generated by the speculative excesses of some market players (Keynes, 1936). In the same vein, the American Nobel laureate in economics James Tobin proposed in 1972 a tax of 1% on foreign-exchange transactions. In 1996, he argued, however, that the tax should be much smaller, perhaps 0.1%. As explained by the same Tobin (1996), the proposal's aims were twofold: to cause exchange rates to better reflect fundamental factors rather than long-term expectations and short-term risks, and to expand the autonomy of national macroeconomic policies. As he perceived that such a tax could generate substantial resources, Tobin suggested that they might be used for international purposes, such as development (see Brassett, 2010).

The "Tobin tax" as it came to be known, was widely debated, especially after major financial crises, and was supported by well-known economists of different persuasions (Jeffrey Frankel, Peter Kenen, Lawrence Summers, John Williamson and Nobel Prize winners Paul Krugman and Joseph Stiglitz, among others).

Recently, there has arisen a new generation of theoretical models based on the "microstructure" of markets (e.g., Shi and Xu, 2009) to distinguish between "fundamentalist" actors, which tend to reduce volatility, and "noise traders" (speculators) which increase volatility. These models and others tend to conclude that a tax, when small, tends to reduce the volatility in currency markets.

In recent years, proposals to create a tax on currency transactions (*currency transaction tax*, or CTT) have varied, however, in relation to Tobin's initial suggestions (see, for example: Landau, 2004; Nissanke, 2005; Spratt, 2006, I.F.T.D., op cit). In the context of the search for innovative sources of financing for development, the proposal emerged of a very small international tax (0.005%) for currency transactions. The CTT differs, therefore, from the Tobin tax, both in its purpose,

which would now not be to discourage transactions that undermine financial stability and only to get additional resources, and in its amount, which would be much smaller precisely to avoid distorting effects on the foreign exchange markets. It would cover not only market transactions in the cash (spot) market, but also derivative transactions in foreign currencies, whose importance has increased greatly in recent decades. Given the high volume of currency transactions, at around \$3 trillion a day, it is estimated that such a tax could raise more than \$30 billion per year as mentioned above (Schmidt, 2008).

This far smaller currency tax, whose main aim is to raise revenue for global public goods, is partly an analytical response to the Jan Tinbergen concept that, to be effective, each policy instrument should have one policy aim. More importantly perhaps, politicians in developed countries seemed more willing to support such a tax in the context of innovative financing for global public goods (GPGs) such as poverty reduction and mitigating, as well as adapting to, climate change (interview material). This had support particularly from those concerned with low-income countries' accelerated growth and poverty reduction and those fighting climate change. Overall, important sectors of civil society - for example, the very active UK NGOs, as well as part of the academic and policy literature - switched to support for a lower tax to raise revenue for development and climate change. It was also perceived implicitly in this approach that fighting volatility and ensuring financial stability - both nationally and internationally - should be achieved mainly by other more precise and sharper instruments, such as financial regulation and capital controls, which could be more easily calibrated.

However, in the light of the severity of the global financial crisis, and the clear central negative role that the financial sector played in causing it, some studies (such as IDEAS, 2010) have returned partly to the idea of currency or financial transactions taxes to help curb, together with regulation, the massive negative externalities that the financial sector generates, as well as raising revenue for GPGs. One modality of such a tax proposes variable taxes, to fluctuate through time, depending on the stage of the cycle, thus acting counter-cyclically, by increasing the tax in times of speculative attacks, for example (McCullough and Pacillo, 2010). Such a tax would be attractive from an economic perspective, but harder to implement, as taxes are more difficult to change through time, given the cycle of annual budgets - though ad valorem taxation may provide a useful precedent for taxation that is flexible through time. The key here would be to have a reliable indicator that could be defined ex ante on where one is in the relevant cycle, which could perhaps be found by drawing on the recent literature on how to do counter-cyclical regulation.

In this approach, higher taxation on the financial sector would complement regulation to achieve financial stability. Such proposals, which are more influential in continental Europe (Schulmeister, 2009, for example) and more radical US circles (for a recent example of the latter see Baker et al., 2009) also tend to prefer a broader financial transactions tax on all or most financial activities, rather than just on foreign exchange transactions.

Importantly, as a result of the collapse of the Herstatt Bank in 1974 and its negative effects on the system of international payments, regulators, central banks and private banks have taken a series of measures to reduce risk in systems payments for foreign-exchange transactions. This has led to the establishment of the *Real Time Gross Settlements System* (RTGS) in order to try to eliminate the systemic risk of foreign exchange transactions. This means that all transactions in foreign currencies are made in real time and in a centralized manner. Supporting these activities, there are a number of institutions that are highly centralized and have very complete records of currency transactions, such as SWIFT and CLS Bank. Together with the benefits of recent developments in the field of technology, this makes it extremely easy and inexpensive to impose taxes on currency transactions. Ideally, such a tax would be done at the multilateral level (or, rather, for the major currencies), but recent studies have shown that it could be applied to individual major currencies (detailed studies have been done on this for the euro and the pound sterling; see for example, Spratt op. cit.). It is important to point out that a number of official reports (for example, IMF 2010; European Commission, 2010) have now concluded that currency transactions taxes are feasible; their critiques are based no longer - as in the past - on feasibility, but on discussions of desirability.

It should be noted that, as a result of the global crisis, authorities in major financial centres are trying to increase

transparency and centralization on exchanges of all or most financial transactions and instruments, including derivatives transactions that are done over the counter, such as credit default swaps among others. Once these measures are activated, a small tax on all financial transactions could become far more feasible, and could be used, at least in part, to finance development. However, this should be considered as a second stage. What can be implemented immediately (as the infrastructure is available) almost like a pilot, would be a very small levy on currency transactions, aimed at obtaining quite significant additional resources to finance development and having some desirable effects, albeit limited, on the volatility of the markets. This is an idea whose time seems to have come.

Before turning to more detailed analysis of the political feasibility of such taxes we will look in more detail at two recent reports on financial taxes, to illustrate different types of financial taxes, and their different aims. The first was a report written by a Committee of Experts (including one of the authors of this paper, Griffith-Jones) at the request of a taskforce created by a leading group of governments, including the UK, France, Japan, Germany, Spain, Belgium, Brazil, Chile and others, exploring International Financial Transactions for Development (TIFTD, op. cit.). The second report is written by IDEAS, a think tank close to the Spanish government and endorsed by Stiglitz, Sachs, Stern, Griffith-Jones and others. Whilst the first report focuses more on a small currency tax to finance development and climate change (though having some beneficial side effects for financial stability) the second focuses on a larger and far wider financial transactions taxes to both curb speculation and raise revenue.

a. The Taskforce on International Financial Transactions for Development Report

The aim of the Taskforce on International Financial Transactions for Development (TIFTD) Report is to address a forgotten financial crisis: the vast shortfall in finance required to meet international development and environmental commitments. Compounding the challenge, the global financial crisis and recession, and the resulting fiscal consolidations, have seriously undermined governments' ability to meet their pre-existing commitments.

This report links the funding crisis directly to what is termed the "global solidarity dilemma". Put simply, the growth of the global economy has not been matched with effective means to levy global economic activity to pay for global public goods. In the view of the committee, resolving this dilemma is central to addressing the funding gap in a sustainable way.

Given the scale of the funding gap, financing will need to be on a significantly larger scale than previously established innovative financing mechanisms. The financial sector is seen as the most appropriate point to levy such an innovative financing mechanism. The architecture of the sector is intertwined with the globalized economy, and is a primary beneficiary of the growth of the global economy. It is thus the most appropriate channel to redistribute some of the wealth of globalization towards the provision of global public goods, which will go to those benefiting least from globalization.

The TIFTD report analyses financing options against a number of criteria: sufficiency, where potential revenues are sufficient to make a meaningful contribution; market impact, where market distortions and avoidance are within acceptable limits; feasibility, where legal and technical challenges can be easily addressed; and sustainability and suitability, where the flow of revenues would be relatively stable over time and the source suited to the role of financing global public goods. The following options were assessed against the set criteria.

- A financial-sector activity tax (FAT), discussed in detail in IMF, 2010
- A value added tax (VAT) on financial services.
- A broad financial transactions tax (FTT)
- A nationally collected single-currency transaction tax (CTT)
- A centrally collected global multi-currency transaction levy (CTL)

In the matrix below, the criteria of evaluation are placed against the options

ASSESSMENT OF OPTIONS MATRIX

		FAT	VAT on Financial services	Broad FTT	single-currency CTT	global CTL
Sufficiency		?	?	✓	✓	✓
Market distortion and avoidance	Unlikely to distort market behaviour?	✓	✓	X	✓	✓
	Limited scope for relocation avoidance?	X	X	X	✓	✓
	Limited scope for (non-relocation) avoidance?	X	X	X	✓	✓
Feasibility	Technically feasible within existing architecture?	✓	?	?	✓	✓
	No major legal barriers to the levy?	✓	✓	✓	✓	✓
Stability and suitability	Stable revenues	✓	✓	✓	✓	✓
	Global purpose, activity and assets	X	X	X	✓	✓
	Central collection	X	X	X	X	✓

Legend:

X = negative assessment

? = ambiguous assessment (further research required)

✓ = positive assessment

Source: IFTD Report

Particular focus is placed in the TIFTD report on the last two, a single-currency transactions tax, and especially a global currency transactions levy:

A single-currency transaction tax (CTT), levied unilaterally by a tax-raising jurisdiction and its central bank through its real time gross settlement (RTGS) or similar settlement infrastructure (for example, EU's TARGET), has the advantage of political feasibility. To be viable, it would not have to be universally adopted and enforced and so could be introduced unilaterally by any country, group of countries, or currency zone that wished to do so. It is also technically feasible. The national basis of collection, however, raises issues of revenue stability for global public goods, as the tax base may be subject to erosion over time due to domestic financing pressures so the money could instead go to national budgets.

A global currency transaction levy (CTL) would apply to foreign-exchange transactions on all major currency markets at points of global settlement. Given existing infrastructure, it would be easy and cheap to implement, practically

immediately; the report discusses in great detail how such a tax could be implemented in practice. An attractive feature of this option is that it appears to resolve the global solidarity dilemma. The financial sector, which benefits disproportionately from the globalization of economic activity, would pay a significant contribution. Nevertheless, revenue would not be raised in an asymmetrical manner by the nations with global financial centres, but would be spread across global activity to pay for global public goods. Global collection mechanisms also avoid the domestic revenue problem, as the funds would go directly into a Global Solidarity Fund for development and mitigating climate change. Despite these advantages, a global CTL has had challenges. Principally, the levy would have to be scaled and other incentives weighed so that it did not lead to avoidance of centralized settlement. However, the report concludes that this would not be difficult to deal with. Two mechanisms could be easily used for this purpose. First, currency transactions not going through centralized settlements could be non-enforceable legally if problems arose, for example, with some counterparty; this would benefit global stability as well as facilitate the collection of the tax. Second, higher capital (or margin) requirements could be placed on transactions not going through central settlement; this would encourage transactions to go through these mechanisms, again good for global stability and easing collection of the tax. We can therefore see that though having as main aim raising revenues for development, this type of currency transaction tax would also have beneficial spin offs for financial stability, the main aim of this study.

b. The IDEAS report

The IDEAS report argues that taxes, apart from being a source of revenue for the public sector, are an instrument for economic policies. On one hand, the obligation to pay taxes on transactions provides governments with information about the volume of trade in a market (for example, it is surprising that large parts of financial transactions performed daily in the world are completely unknown). On the other hand, taxes are seen as tools to create the right incentives to decrease the volume of transactions that are likely to generate more social costs than benefits.

Three main objectives should be pursued in designing taxes on the financial sector, according to this report: (1) avoid negative externalities generated by the financial sector, which stem from highly short-term speculative transactions, excessive risk exposure, and the large size of some institutions that makes their risks systemic; (2) put an end to the anomaly of having a large sector of an economy out of supervision and regulation, and with no VAT on its operations; and (3) obtain revenues.

The IDEAS Report makes the important point that different taxes on the financial sector are not mutually excluding alternatives: a combination of different types of taxes applied to the financial system could be used since they pursue different objectives, although the fiscal burden on the sector should be carefully considered. The report argues that the new taxes can reduce volatility, increase transparency and thus encourage production activities. The recovery of bank credit for production activities that contribute to economic recovery and overcoming the crisis will be faster as the stability of financial markets is restored. The new regulation and the new taxes on speculation can help achieve this.

Like the IFTD report, the IDEAS report argues that a global approach to financial taxes would be the right one, or at least, an EU common approach: if the G20 do not reach an agreement about establishing an FTT, the debate should continue at EU level.

The study evaluates three main tax alternatives (tax on short-term capital gains, tax on banks and a tax on all financial transactions at 0.05%) and provides some estimates about the range of revenues that each type of tax could generate for the world, Europe and Spain.

The IDEAS study argues that one of the key issues before establishing any type of tax is to regulate international financial markets. Once this is achieved, at least on the EU-level, a financial transaction tax is deemed the best option. It has the best potential to reduce potential externalities generated by the volatility of markets. It would consist of tax on any type of financial transaction, and would be coordinated worldwide and implemented in all financial centres. The power of this tax

resides in the fact that it does not aim at banks, neither at citizens in general, but at operators and intermediaries who carry out financial transactions.

The two main objectives for the FTT are: first, to promote stability of the financial system; second to obtain revenues that can be used either to cover costs of the current economic crisis originated by financial causes, or to provide funds for global public goods.

c. Economic and political conclusions on taxing the financial sector

There are three possible categories of instruments for dealing with financial instability, as well as creating a financial sector that serves the needs of the real economy. These are regulation, taxes and banning or segmenting activities as well as instruments. Taxes on the financial sector (or parts of it) can have as a separate and indeed in some cases only, objective that of raising revenue for desirable objectives such as global public goods, as in the case of a very small currency tax. These three categories of instruments can ideally be implemented multilaterally, which will increase their effectiveness significantly as markets are global. However, if this is not politically feasible, it may be possible to have it implemented by a group of countries - or a so-called coalition of the willing; examples in the case of taxation of the financial sector could be the EU, the Leading Group of countries for Innovative Financing, or other groups or nations. A third option is implementation by just by one country, easiest politically, but having least impact economically.

As regards taxing the financial sector or transactions, the Tinbergen principle enunciated above, may imply that more than one tax may need to be implemented. A low-hanging fruit is a very low rate flat tax on all currency transactions (including derivatives) as it could be easily implemented multilaterally; it is ideal for financing global public goods, such as development and climate change mitigation, as discussed in the IFTD report. The infrastructure for levying such a tax already exists, and all that is required is political commitment of governments for it to be implemented. It is so small that it would not affect market behaviour significantly. Such a tax could be implemented on a pilot basis, ideally multilaterally, or failing that by a coalition of the willing, for example for a period of five years.

A small global currency tax will have the political support of those concerned with development and with climate change, both in the developed and in the developing world (for example, NGOs, UN, development ministries). This coalition, however, needs to be broadened to ensure political approval from sectors such as: a) non-financial entrepreneurs, both SMEs and large companies; b) unions; and c) even sectors within the financial industry that wish to improve its very bad image and believe in the importance of development and climate change; d) parliaments, as they often tend to be more sympathetic than other parts of government, with the European Parliament providing an excellent example.

To ensure broader political support for a currency levy for financing development, it may be necessary to give part of the proceeds to the countries where the transactions originate; this is not so desirable, as it would reduce the finances going for GPGs, but would increase political feasibility. Instead, or in addition, support and advocacy of a small currency tax could be linked to far broader (and possibly higher) taxes established at national levels. The proceeds of those national taxes could go mainly or totally to national aims, such as budget deficit reduction initially, but also increasingly to financing schemes providing jobs (for example, credit for SMEs and others) and/or financing investment in low-carbon technology (for example, the UK Green Bank). To the extent that the tax would reduce negative externalities from the financial sector to finance desirable aims it would make the contribution of the financial sector to the rest of the economy and to average citizens far more positive.

Such taxes are higher than the low flat rate currency transaction (IDEAS proposes 0.05%), as they aim to affect market behaviour, thus curbing negative externalities of excessive risk taking. They are premised on the view that financial markets are riddled with inefficiencies and failures, which need correcting. Particularly as such taxes would be applied to all - or most - financial activities, it may still be necessary to clarify issues of implementation.

Though this second tax would generate more opposition from the financial sector (two taxes instead of one) it would greatly strengthen the coalition of social forces - especially at national levels - supporting such a tax, whose proceeds could be spent nationally.

Such a tax may need more economic analysis to determine a level which, combined with regulation and banning of undesirable transactions, would encourage a scale, type and structure of financial activity desirable from an economic and social perspective. It may also require more detailed analysis of implementation issues, especially if it were coordinated internationally, as would be desirable. However, implementation would be greatly facilitated by post-crisis regulatory trends (for example, US regulatory law that puts a high proportion of derivatives on exchanges. In turn, such taxes would be improving transparency further facilitate future regulation and especially supervision of financial markets. By improving the net contribution of the financial sector to the real economy, and to the welfare of ordinary people, it would improve the financial sector's battered image - surely a desirable aim for the financial sector itself!

3. Regulating the Financial Sector

Before the crisis, the regulatory governance of financial markets proved incapable of stemming the increase in systemic risk brought about by, amongst other factors, the integration of capital markets and banks, the excessive increase in leverage throughout the financial system and the massive growth of credit (see Stiglitz, 2010 for an excellent account of the causes of the crisis). The lack of any transparency or regulation in the so-called shadow banking sector, including that regarding over-the-counter (OTC) instruments, particularly emasculated regulatory capacities to impose risk-reducing measures in the financial system as a whole (see for example, d'Arista and Griffith-Jones, 2010) .

a. Why has there been such regulatory failure?

The failure to regulate the size and functions of the financial system effectively before the crisis can be attributed to macroeconomic capture, personnel capture and the intellectual capture of those supposed to regulate financial markets (Tsingou, 2009; 2010). The recent rapid growth of the financial sector, especially in some developed countries, implied strong macroeconomic influence of the financial sector. As the financial-services sector began to make up a growing part of well-paid employment, GDP and tax revenues, its growth became important to politicians. In the last decade several countries pursued a strategy of 'privatized Keynesianism' (Crouch 2008; 2009), in which growth of private credit led the demand-driven growth in developed economies. The systemic need for a growing financial sector in order to generate growth in employment and tax revenue is what we call macroeconomic capture. The short-term positive effects of credit booms were combined with the short-term view of politicians benefiting from positive macroeconomic data.

It is in these political circumstances, that the financial sector became too big and dysfunctional to meet the long-term needs of the real economy, which meant that it also became too powerful to be regulated. This is not only made evident by the amount the financial sector spends on lobbying, but also the amount of contributions it makes to political campaigns. In 2009, according to data collected by the Center for Responsive Politics, the finance, insurance, and real-estate sector spent over \$463 million on lobbying. While this is the most ever, it most likely will be topped in 2010. Over the course of the last 20 years, the finance, insurance and real estate sector has donated more than \$2.3 billion for campaign contributions and has been the single largest contributor to campaigns over this period (Center for Responsive Politics 2010). The influence of the financial sector is acknowledged by senators, such as Senator Durbin, who told a radio interviewer in April 2009: "The banks - hard to believe in a time when we're facing a banking crisis that many of the banks created - are still the most powerful lobby on Capitol Hill. And they frankly own the place." (Simon and Kwak, 2010)³

³ Recent research by the IMF (Igan, Mishra and Tressel 2009) shows that those mortgage lenders most aggressive in expanding their mortgage portfolios and reducing requirements were also those most active in lobbying the US Congress.

One of the most evident and problematic of these interlinkages of politicians and bankers is the policy of ‘revolving doors’ (Seabrooke and Tsingou, 2009b), where former bankers become government officials charged to regulate their former colleagues (for the role of revolving doors in the handling of the Wall Street bail-out, see Ferguson and Johnson, 2009). Such a staffing policy is often argued to be justified by the increased complexity in the financial sector which supposedly blocks an adequate understanding by politicians or even regulators. And complexity of issues leads to a tendency towards delegation to experts (Mayntz, 2010: 183), such that financial governance is often only dealt with by the executive (Treasuries, regulators). In this interaction a policy style developed where the agreement of the banks was sought on major changes which would apply to them, a fact which still seems to hold today, even as the sector is largely discredited in its capacity for self-regulation (Bode and Pink, 2010).

The ‘interactive embeddedness’ between state and financial institutions (Seabrooke, 2001) has been furthered by an intellectual capture which resided in public institutions wrongly adopting a micro-economic approach built on assumptions of rationality of private actors in order to understand and regulate a financial system that is crucial for macro-economic stability. Even more fundamentally, given the belief that markets were efficient and therefore did not need to be regulated, banks did not even have to lobby hard since regulators were intellectually convinced that light touch regulation was optimal.

This led to the neglect of important duties of regulators. For example, they did not counteract the pro-cyclical activities of the private sector by essential counter-cyclical regulation in order to guarantee financial stability. They failed to make the system robust in imposing sufficient constraints on the risk-taking of financial institutions which all use similar, insufficient models to price risk, as well as having remuneration structures that encourage short-term risk taking. Regulators who need to enforce prudent capital and loan loss provisioning to ensure financial stability do so often in the face of opposition from banks who see higher capital provisioning rather as costs.

It is extremely important to recognize that in the nexus of politics and finance, those people who would benefit from financial stability are excluded from the debate on proper financial governance - trade unions, non-financial companies, both SMEs and larger corporations, academics, civil society and parliamentarians that represent tax-payers. However, they will need to play a much larger part in the future. In order to have more prudent regulation it will be necessary to break the unilateral dialogue between regulators and industry.

In order to establish more responsive regulation, where public-interest groups outside of the government and the regulated financial industry are challenging decisions of regulators deemed to be close to the industry (see Ayres and Braithwaite 1992) there is a need for greater expertise and permanent monitoring on the part of those excluded stake-holders. The build-up of these capabilities will require the institutionalization of independent expertise. Independent institutes will have to watch the translation of legislation into regulations and their implementation. This would go to the heart of one of the biggest problems of current legislation: the pervasive delegation of financial reform to regulators. While the massive attention of civil society to financial-sector regulation will fade once the bills are passed, the banks will always be concerned with the implementation of regulation through more detailed rules, as well as through supervision. Their lobbying attempts in this field will need to be countered if more prudent, less pro-cyclical regulation is to be achieved. In order to gain understanding of the issues at stake in supervision, civil society will need to find resources to fund those experts working in the public interest. That there is actually a great lack of independent expertise can be seen from a recent appeal for help of European Parliamentarians, asking for the creation of such an organization. As they explain regarding their interaction with the financial lobby:

“There is nothing extraordinary if these companies make their point of view known and have discussions on a regular basis with legislators. But it seems to us that the asymmetry between the power of this lobbying activity and the lack of counter-expertise poses a danger to democracy. Indeed, this lobbying activity should be balanced by that of others. As European elected officials in charge of financial and banking regulations, we therefore call on civil society (NGOs, trade unions,

academic researchers, think-tanks...) to organize to create one (or more) non-governmental organization(s) capable of developing a counter expertise on activities carried out on financial markets by the major operators (banks, insurance companies, hedge funds, etc ...) and to convey effectively this analysis to the media” (<http://nicotoonsprojet.free.fr>)

We suggest that a range of actors require greater policy voice on the links between the financial sector and the real economy. Civil society organizations, such as the European Coalition for Responsible Credit (<http://www.responsible-credit.net/>) should try to garner the support of SMEs and even large non-financial companies, which also suffer from credit shortages and financial instability. Up to now, these companies have usually been used by the financial services industry as an ally to deflect tighter regulation (for example, calling for exemptions for derivatives which shall not be traded through clearing houses, using the argument that it would increase the cost of such derivatives for corporate end-users, see Pagliari 2010).

How to enable regulators to find regulation which keeps up with financial innovation in order to stem the growth of systemic risks is a major question going forward. To us, the problem does not only reside in regulators. It is also a problem of the growing complexity in the banking sector, which makes the handling of it so difficult (see also Warwick Commission, 2009: 28f). Reimposing a separation of investment and commercial banking, as was done by the Glass-Steagall Act, only moderately succeeded in the US in 2010 through the weak version of the Volcker-rule that was passed (see below). Alternatively, using an approach to innovation which only allows a limited growth of the volume with which these are traded could allow regulators to learn about the changes these instruments bring to the financial system as a whole. Furthermore, when regulators notice that financial innovations such as ‘special purpose entities’ are primarily used to reduce the capital requirements imposed on banks (regulatory arbitrage), such instruments should be put on balance sheets, so they are appropriately capitalized, as done in Spain.

In order to understand and evaluate recent developments in financial markets in terms of the stability of the financial system, regulators need knowledge from the private sector, but the important issue is not to become intellectually or personally captured in the process of this transfer. In the recent past, we have seen that regulators have delegated the task of regulation to the regulated firms (Tsingou, 2009) which was obviously ill advised. Lack of transparency further hindered the appropriate understanding of market developments (especially in the over-the-counter market for derivatives). Enforcing transparency in financial markets is a sine qua non for better regulation, but it will be insufficient. For example, the moral hazard inherent in the implicit government guarantee for banks which are too systemically interconnected, and thus too big to fail, cannot be regulated, thus banks that are too large and too interconnected have to reduce their size in order to improve financial stability (see also Kellermann, 2010).

The problem of growing complexity and opacity to us seems hard to resolve from the standpoint of a regulator, which leads us to put forward the hypothesis that most financial transactions need to be better regulated in the future, while others may need to be banned as they have a lot of negative externalities and no net social benefit. As the complexity of instruments and legal relationships between banks and their subsidiaries is a source of systemic risk, often instituted so as to maximize short-term profitability, it needs to be reduced.⁴

In the following we describe several aspects which are at the root of this growing complexity:

⁴ An example here is the legal construct of a qualifying structured investment vehicle (SIV). These entities often had no other function than to reduce the balance sheets of banks and to decrease the costs of funding for their debt. While these entities legally were bankruptcy remote from their sponsors, the threat of moral recourse from investors led many banks to support their SIVs voluntarily in the crisis. Such an implicit understanding, although documented in the academic literature (for example, Gorton and Souleles, 2006) is very difficult to prove for regulators ex ante. Due to this implicit understanding, banks could put much debt into off-balance sheet entities, while the actual risk transfer that would have legitimized such activity was in fact not taking place. In the future, instead of giving regulators the almost impossible, and evidently very laborious, task of determining in how far such a SIV is controlled by its sponsors, the sponsoring of such single-issuer SIVs should be forbidden for banks which are protected by the state.

The use of complex trading models bars the understanding of the impacts of these trading strategies on the market. Formulas and models which are used to predict the future become more complex and it requires “experts” to evaluate the soundness of these models. The problem with these models is twofold. On the one hand, and most importantly, there is inherent uncertainty about the future, which cannot be accurately predicted. As the crisis has shown again: the “emperor has no clothes”. Quantitative risk management is incapable of anticipating the future to such a degree to make the system permanently stable. Shocks can alter the behaviour of the financial system to such a degree that correlations measured in times of calm do not predict the behaviour under situations of stress. Even if the world could be modelled in terms of stochastic processes (which is practically impossible), the available data are often too limited to help make relatively accurate predictions, as many instruments only exist for a period of a few years, which often does not include a full cycle.⁵ The fact that similar models guide the behaviour of many actors in the financial market actually worsens the problem of systemic risk and contagion, as it creates unexpected correlations in crises.

The second problem is that models used to price financial titles lie at the foundation of the business model of banks. This means that anybody capable of evaluating these models to the degree that he/she can detect flaws in them is a specialist, whose services will be remunerated much higher in the financial industry than by regulatory agencies. Thus, due to the pay differential between industry and regulators, there is a high probability that “expertise” on these models resides in the industry. The financial industry has used this complexity before the crisis in order to argue for their unique ability in self-regulating the risks they are taking, as they are the ones closest to the innovations. This differential of assumed “expertise” between regulators and practitioners then seemingly justified the stance of the banking industry and legitimized the abdication of the rule-making process from regulators towards them. In this sense, one can interpret the employment of “quants” in financial institutions also as a device to legitimize business, pretending falsely that speculation was science through the quantification of uncertainties into risk.

The intricate relationships of these new legal debt products to their underlying assets further added to uncertainty in the markets. For example, collateralized debt obligations (CDOs) are securities which are based on the revenue flow of other assets, whose revenue flow is repackaged and sold. The issue is that one can then “engineer” financial securities, which are built on these CDOs (CDOs of CDOs⁶) even synthetically through credit default swaps. For market participants who are buying these products it becomes very difficult to gauge the risks they are actually buying and thus to make rational investment decisions. These innovations meant higher complexity, which instead of maximizing the diffusion of risk in the financial system maximized information asymmetries.⁷

The increasing complexity of processes and products make it also more difficult to regulate these innovations properly. Recent attempts of regulators led to the development of equally complex regulation. The recent crises showed again that a proper evaluation of risk is impossible (in the numerical sense that the uncertainties of market developments cannot be transferred into solid calculable probabilities) such that regulators should try to reduce (unquantifiable) risk in the system, instead of looking for ways to measure it appropriately. This provides a rationale for a more visible hand in financial markets, including the banning of certain financial instruments if either they contribute to excessive, unmanageable complexity and/or have net negative externalities on financial stability. Regulation in the future should be rule-based,

⁵ Especially in the field of structured products, credit default risk and the question of correlation of default between different debt titles is crucial to the perceived risk of products. However modelling these correlations is limited due to missing data and the likelihood that in crises these correlations change unexpectedly. For the example of CDOs built on mortgage-backed securities, see MacKenzie, 2009: 28ff)

⁶ MacKenzie provides a succinct description of CDOs for asset-back securities, when he writes that such a CDO can be understood like a Russian doll... it was a tranché, packaged instrument, each component of which was itself a tranche of a packaged instrument.” (MacKenzie 2009: 41)

⁷ This was the case, for example, in the market for collateralized debt obligation which were built on mortgage-backed securities, where buyers relied entirely on ratings agencies and stopped asking for more fine-grained information in order to evaluate the riskiness of products (MacKenzie, 2009: 58).

which simplifies it, and allows less gaming, as well as reducing the tendency towards pro-cyclical behaviour of markets. To summarize: a better way to deal with complexity is to reduce it, rather than regulate it in complex ways.

b. Regulatory gaps

In what follows we will outline the fields of regulation in which we see the greatest gaps as revealed through the crisis.

As banks have been at the centre of the financial crisis, it is most appropriate to start with them. Not only have banks been severely undercapitalized regarding the losses this crisis has caused, but also the risk-weighted requirements for capital measures have proven to be very unreliable. Indeed, those banks which were well capitalized according to regulatory criteria before the crisis were among those the most in trouble (RBS, UBS, Dresdner Bank, see Lapido/Nestor, 2009: 52). Embedded risk in new financial products (such as CDOs of CDOs) and the failure to capture and require capital against the growth of off-balance sheet exposures (for example, special investment vehicles) were two reasons for the mismatch between regulatory capital ratios and actual risk exposure (CGFS, 2009). The installation and use of off-balance sheet entities was a practice to reduce the balance sheets of banks, a form of regulatory arbitrage. It was identified as one of the root causes of the crisis (Stiglitz, 2008; Jablecki and Machaj, 2009: 302; Acharya and Schnabl, 2009; Acharya, Schnabl and Suarez, 2009; D'Arista and Griffith-Jones 2010). Equally fundamental was the use of the banks' own models for calculating their economic capital, but also increasingly for regulatory purposes; the key problem was that these models were deeply flawed in that they ignored the serious negative externalities of many banks simultaneously using the same model, which contributed to herding and contagion of both euphoria and bust. Thus the models contributed to the pro-cyclicality of finance, which also began to be embedded in pro-cyclical regulation (Griffith-Jones and Persaud, 2008; Griffith-Jones and Ocampo, 2009).

The innovations in financial markets described above had the effect that there was a low correlation between the capital reserves held by the banks according to the standards of Basel 2 on the one hand and actual economic leverage of banks on the other (Lapido/Nestor, 2009: 9). Those that had to be rescued had the lowest available capital and had the highest simple leverage, while they looked well capitalized in terms of regulatory, risk-weighted capital (Mediobanca 2009: 11). Simple leverage of banks⁸ increased from 2003/2004 due to structured credit and other off-balance sheet items (CGFS, 2009: 1), as it had been the predominant strategy of banks in order to increase return on equity. In order to be able to pursue this strategy of growing leverage, banks increasingly relied for their funding more and more on short-term paper in the inter-banking market. This increased the vulnerability of the financial system to liquidity shocks, as risk-averse lenders in the money market will stop lending in moments of high uncertainty (Padoa-Schioppa 2004: pp. 105ff). Because there was practically no liquidity regulation, and financial institutions had incredibly low liquidity cushions, this became a major cause of problems.

On the asset side, banks increasingly took loans into their trading books for reasons of capital arbitrage, as there they had to fulfil lower capital requirements (Tett, 2008). The high liquidity in the capital markets pre-crisis allowed banks to treat all their assets as saleable by tomorrow. While in good times, this allows for an apparent reduction of their maturity mismatch risk regarding their short-term liabilities, once there is a freeze in the market for their assets, the magnitude of the maturity mismatch in the system brings the banking system to the brink of illiquidity. At the same time, banks increased their proprietary trading to make investments on their own account. These two features led to the strong impact of the degradation of specific asset-backed securities on banks' balance sheets when these assets declined abruptly and in an unexpected magnitude in value while almost no capital was held against this risk.

⁸ Simple leverage is defined as total assets/equity, with equity being defined as total assets - total liabilities. The problem is that it does not take into account credit risks (probability of default of asset issuer) market risk (exchange rate risk) and operational risk (fraud risks, legal risks, environmental risks). Tier 1 capital is the core regulatory capital of the bank, which means common stock, disclosed reserves and retained earnings.

For the future it is imperative to impose far stronger capital and liquidity requirements; these need to be complemented by leverage requirements that are not risk sensitive. Current capital requirements, with their distinct weighting of assets according to their perceived riskiness encourage banks to load up on assets whose riskiness is underestimated by rating agencies, and which therefore provide a higher return at the same credit rating. This has two consequences. On the one hand it leads to an underestimation of risks on the book (mostly due to the mispricing of structured credit instruments, as for example CDOs). Second, banks maximize their equity so that gross leverage (the simple ratio of assets to equity of the bank) diverges strongly from regulatory capital ratios. So, if rating assessments actually fail ex ante to capture the proper riskiness of new financial instruments ex post (which is only too likely as few data are available), the financial system has in the meantime loaded up on these assets. Embedded risk in new instruments and the failure to capture the growth of off-balance-sheet leverage (for example, special investment vehicles) were the two main reasons for the mismatch between regulatory capital ratios and actual risk exposure (CGFS, 2009:6). Also, as the crisis has revealed, market actors and regulators underlay a liquidity illusion. The large volume of transactions between only a few players had hidden the huge need for liquidity in case one of the market-making banks was to drop out (Deutsche Bundesbank, 2004: 39f)

Therefore, liquidity (and possibly even capital) requirements need to be increased and linked to the maturity mismatches in the banks' balance sheets to discourage the massive maturity mismatches that occurred in the past (see also discussion below). Statutory limits on capital, liquidity and leverage will be needed in the future in order to prevent regulators easing these restrictions for reasons of competitiveness of domestic as compared to foreign banks, or for other reasons (see Americans for Financial Reform, 2010). Furthermore, there needs to be equivalent capital, liquidity and leverage requirements for all bank and non-bank financial activities; one very effective way of implementing this would be not to allow off-balance-sheet transactions. Otherwise banks will transfer their assets into asset-backed commercial paper markets, where short-term papers are used to finance long-term assets, again increasing the maturity mismatch. Also, the regulatory capital requirements on bankruptcy-remote special purpose entities were virtually non-existent.

The increasing reliance of banks on the inter-bank loan market had increased the interconnectedness of balance sheets between banks, and thus the risk of contagion, as had the growth in OTC derivatives, with the largest banks dominating the markets. For example, in the FOREX derivatives market in the US, over 90% of derivatives were traded between the five largest banks (D'Arista, 2010). In conjunction with the lack of transparency in the market, doubts about solvency between these banks brought the inter-bank market to a halt post-Lehman, with very bad effects for the real economy worldwide. Due to the large maturity mismatches, banks were immediately threatened by illiquidity menacing insolvency as refunding sources dried up. The systemic interconnectedness between these large banks led to the consequence that the bankruptcy of one institution caused stark deteriorations of the balance sheets of other banks (counterparty risks) threatening chain bankruptcies. To end "too big to fail" and "too interconnected to fail", to increase financial system stability and to reduce the probability of future tax-payer bail-outs will require a disentangling of the web of mutual obligations of the large banks at the centre of the financial system. It will require reducing the importance of the inter-bank market as a source of funding for the business of banks, which makes the system so reliant on continuing liquidity. Regulation that wants to reduce financial fragility of the system needs to reduce the dependence of banks on short-term money markets for their liabilities and to install higher liquidity and capital buffers in case these markets stop working.⁹ The risk potential stemming from liquidity shocks was neither detected by Basel 2 nor by financial regulation in general.

Another problem of the regulatory regime was its lack of comprehensiveness. It was incomplete in that it did not regulate all institutions (such as hedge funds) and instruments (such as off-balance-sheet vehicles). It was also incomplete in that it did not force banks to account for the risks posed by derivatives and some liabilities (such as short-term repurchase agreements) as they held them off balance sheet, thereby leading to hidden risks that were insufficiently backed by capital. Over-the-counter derivatives had been a major source of systemic risk before the crisis and for uncertainty among banks in the inter-bank lending market during the crisis. Being over the counter, these deals were not known to the public or the

⁹ For a detailed discussion of the need for counter-cyclical regulation of these variables, see below.

regulators, making it impossible to ascertain the solvency and liquidity of other banks, while it was clear that some banks had made tremendous losses as the crisis deepened. Thus information asymmetries were at the heart of the total halt to liquidity experienced in the inter-banking market in the fall of 2008. In order to increase clarity for investors and regulators (D'Arista and Griffith-Jones, *op. cit.*) as well as to secure stability through margin requirements, derivatives contracts need to be traded through clearing houses. Transparency is a precondition for successful regulation.

In order to further disentangle the web of mutual obligations, it is necessary to eliminate proprietary trading of systemically important banks and other institutions, which have government-insured deposits, as their exposure to market volatility will be reduced. One goal of regulation to eliminate or limit proprietary trading is to reduce high-risk activity that can cause large institutions that are central to the financial system to fail. A second goal is to end the use of low-cost funds - to which insured depositors have access - to subsidize high-risk activity. One reason for the strong growth of OTC derivatives and the market-making role of the five largest banks in the US was speculative betting by banks on asset price movements and then their attempts to hedge this market exposure and the exposure of their clients to asset price volatility by buying derivatives from other banks. Eliminating proprietary trading as well as imposing stricter capital standards in general and specifically on the trading books of banks will reduce systemic risk and the demand for derivatives.

Future regulation should aim at reducing regulatory complexity as it was installed through Basel 2. As the recent past has shown, more detailed, risk-sensitive regulation may contribute to bank practices which aim at minimizing regulatory capital while maximizing (short-term) return. Furthermore, as we pointed out, building risk management on the models of banks which are at best only approximations to future behaviour of the system is flawed. The key problem of these models was that they were inherently pro-cyclical, as they were based on current market prices, and because they were used simultaneously by many banks they deepened contagion and herding. When these two are intertwined, fundamental mistakes of the banks' risk evaluation systems can translate into a system-wide under-provisioning of capital for unexpected losses. Should these events occur, they can lead to systemic failure. Simple gross leverage ratios and liquidity requirements are needed to increase financial system stability. The simpler they are designed, and the more comprehensive is their coverage, the less possibility there is to find exceptions. As discussed below, not only is it crucial to limit leverage, require sufficient capital provisions and liquidity, it is important to vary these in a counter-cyclical way to compensate for the pro-cyclical trend of banks and markets.

c. Counter-cyclical measures

In a modern market economy, regulation is very important, as it significantly influences the level of credit at particular moments, and its evolution through time. As Greenwald and Stiglitz (2003) have shown, the level of credit is the critical variable in the determination of output and employment. Indeed, the important role of credit had been underestimated by academics and policy-makers, who tended to place more emphasis on monetary policy. To the extent that credit is an important macroeconomic variable, good and effective regulation becomes an essential policy tool.

The need for regulation to be counter-cyclical was initially recognized by only a small and fairly isolated group of academics and some international institutions, like BIS and UNECLAC. However, after the global crisis became acute, rhetorical commitment by policy-makers to counter-cyclical regulation became widespread.

Counter-cyclical regulation needs to be an important part of economic strategies aimed at stabilizing the economy by reducing the pro-cyclicality of finance and its effects on the real economy. It does so by explicitly incorporating the impact of macroeconomic risks, and changing crucial regulatory variables in a counter-cyclical way to discourage lending booms and prevent credit crunches.

As agreement on implementing counter-cyclical regulation seems very broad amongst policy-makers, there is also an ever-growing consensus that it is not enough to reduce pro-cyclicality of existing regulations (like Basel 2), it is also essential to design strictly counter-cyclical regulations to offset the natural tendency of banking and financial markets towards boom-

bust patterns. The key questions are now practical; how best should counter-cyclical regulation be implemented?

Initially, there was a debate about what instruments would best be used to achieve regulatory counter-cyclical, especially in solvency requirements but also for liquidity. There is now increasing agreement that several instruments need to be used in parallel.

In the case of solvency, those instruments would include counter-cyclical capital requirements and loan provisioning or non-distributable reserves, as well as counter-cyclical leverage ratios and loan-to-value ratios. An alternative for the latter is to have rules to adjust the values of collateral for cyclical price variations, especially for real-estate prices.

The only problem with using such a large array of instruments may be their excessive complexity, which partly reflects the complexity of problems posed by the financial system. An alternative, more direct approach would be for regulators to limit the growth of bank credit. This could become relevant if the more indirect counter-cyclical regulation instruments discussed above were not sufficiently effective.

Counter-cyclical provisions have the virtue that they have already been implemented successfully by the Spanish authorities for almost ten years. They provide an excellent precedent for other countries. They are clearly very valuable, especially for strengthening banks, though apparently less effective in curbing excessive expansion of credit. One problem has been tensions between implementing counter-cyclical provisions and accounting rules, initially moderated in Spain because the Banco de España designs the accounting rules. However the dialogue between international regulatory bodies and accounting associations after the global crisis is helping ease this problem more widely. It is also interesting that though availability of good and long-term data eased the implementation of counter-cyclical provisions in Spain, Spanish experts argue that simulations may be used for countries that do not have such good data.

An important choice is whether counter-cyclical should be implemented through rules or in a discretionary way. There seems to be an overall preference for predetermined rules that will reduce the risk of regulatory capture, either by narrow interests or by the over-enthusiasm that characterizes booms (see also above). Rules could be tightened in special circumstances, but never loosened during booms. Appropriate indicators (such as growth of credit and/or asset prices) need to be chosen to ensure counter-cyclical capital buffers vary effectively with the cycle.

Though assuring enough capital, provisions and reserves is key for financial stability, so is liquidity, even though the latter has been less discussed. Prudential regulation needs to ensure adequate levels of liquidity for financial intermediaries. One good way of doing it is to set liquidity requirements based on the residual maturity of financial institutions' liabilities.

As solvency and liquidity are complementary, there may be a case for implementing requirements jointly, which would imply requiring more capital in a counter-cyclical way for institutions with large maturity mismatches. However, as capital will never be sufficient to deal with serious liquidity problems, there is a clear case for having a separate liquidity requirement.

As regards accounting disclosure rules, these should satisfy both the needs of investors and those of financial stability. An optimal approach may be to rely on a dual disclosure approach where both current profits and losses are reported as well as profits after deducting forward-looking provisions, or a non-distributable 'economic cycle reserve' that set aside profits in good years for likely losses in the future.

There are some important trade-offs between stronger and more counter-cyclical regulation and access to credit. Such stronger regulation will result in higher spreads in domestic financial intermediation. They may result in a sub-optimal supply of financing, especially in the supply of long-term credit for small and medium-sized firms (SMEs). Therefore, additional instruments may be necessary to provide sufficient and sufficiently long-term credit, particularly to SMEs. Higher spreads may also generate incentives for corporations with direct access to international capital markets to borrow abroad, thus increasing the likelihood of currency mismatches in the portfolios of these agents. Hence the need for international coordination of regulatory policies, as well as specific policies to deal with currency mismatches in financial portfolios.

To avoid regulatory arbitrage, the comprehensiveness of counter-cyclical regulation is an important issue, both nationally and internationally. The best approach seems to be equivalent comprehensive counter-cyclical regulation for all institutions, instruments, and markets. This would include also all non-banking financial institutions, such as alternative investment funds (the “shadow banking system”) as well as all instruments within banks, by consolidating all activities onto the balance sheet; it should also include counter-cyclical margin and collateral requirements on all securities and derivatives instruments (for more details, see Griffith-Jones and Ocampo, *op. cit.*).

Counter-cyclical regulation needs to be implemented nationally, as cycles vary by countries. They should be implemented by host countries. However, the broad criteria need to be defined nationally or regionally (for example, within the European Union) but coordinated internationally, as markets are subject to contagion. Thus, a crisis in another important country (especially in an important creditor, debtor, or trade partner) can seriously harm financial stability or output in other countries, even though they have not accumulated systemic risk. Therefore, in a globalized economy, all countries have a legitimate concern about pro-cyclical excesses in other countries.

The case for international coordination for defining broad criteria for counter-cyclical regulation is therefore strong. This seems to require a considerable strengthening of regional and global regulatory institutional arrangements.

A final point relates to the timing of introducing counter-cyclical and stronger regulations. It is important to agree such regulations in the wake of a crisis when political appetite for regulatory reform is highest. This will also help restore confidence in the financial system. However, such rules should begin to operate gradually and only after the economy is clearly recovering, and financial institutions have become stronger. This will prevent the undesired effect of tighter regulation worsening or prolonging a credit crunch in the immediate aftermath of a crisis.

In the light of these measures needed to reduce boom-bust cycles and the insufficient regulation of the shadow banking sector we will now look at the extent of financial market reform in the US, which has developed the most advanced package of financial regulation to date.

d. What is the extent of US reform of financial regulation?

This next section focuses on the financial regulatory reform in the US that was just being approved at the time of writing. One fact to highlight, and which justifies our focus on it in this study, is that it seems that regulatory reform in the US has moved faster and further than in the rest of the world, and especially in Europe. The other reason why we focus on it is because the US financial system is the largest in the world, so changes in the US will be very influential globally, including in developing countries.

As regards the apparent greater and welcome speed and depth of US reform, especially if compared to Europe, where the rhetoric of critique of the financial sector has been even louder and there have been a vast number of thoughtful studies on regulatory reform, several factors seem to explain the greater strength of the US initiative via legislation. First, there was particularly strong lobbying in the US - for example, by the trade unions, progressive think tanks and others - for good financial regulatory reform. This lobbying built on popular anger against the financial sector that was reflected, for example, in demonstrations. Much of the liberal media also backed the financial regulatory process. Reportedly, the trade unions had a particularly strong influence in ensuring regulatory and transparency progress on derivatives, on the establishment and nature of the systemic regulator, and on the establishment with stronger features than would have been otherwise been achieved of the resolution authority (interview material). Second, more progressive forces were encouraged and became more assertive by the success of passing the US health reform bill. Third, reportedly the leadership provided by Senator Dodd and Congressman Frank helped strengthen the legislation; there was support from President Obama, particularly on aspects such as consumer protection. Fourth, it seems more difficult to reach agreement in Europe on regulatory reform, as there is no federal state, and therefore any regulation has to be negotiated by 27 member states with financial systems that differ both in their scale and in their characteristics; these negotiations take place in the European

Parliament, within the European Commission and possibly need to be ratified by member governments. This makes the process slower and subject to bureaucratic delays, as well as to strong national and ideological contradictions; though lobbying by the financial sector seems less open and organized than in the US, it may in the end be more pervasive, as there are so many instances when such lobbying can take place in Europe.

In Europe, valuable initiatives, such as that of the European parliament to regulate hedge funds and private equity led by Poul Rasmussen, head of the European Socialists, get not only diluted, but continuously postponed by the blocking tactics of the UK, where most of the European funds are hosted, by the pressure from the US to avoid regulation for US funds in Europe, and of course by intense lobbying from hedge funds and private equity firms themselves. However, there are important areas where the European Union seems to be making progress, such as institutional issues, where there is an ambitious pan-European financial regulatory authority being designed that would develop common European rules for national regulators to implement; however, the approval of this initiative may be far away.

As regards the US regulatory reform legislation itself, the main subject of this section, it is important to highlight that there are three tiers of this regulatory reform. The first is the legislative process that is now coming to an end; though very long, the resulting law will in many aspects basically mandate regulators to define the “details”, that is, the specific features of the regulation, including, for example, levels of capital requirements, provisions against losses, and others that we detail below. Thus Congress does only the broad strokes, which are clearly important, but in practice “the devil is in the detail”. Therefore it is crucial that the translation of the law into second-tier regulation reflects the spirit of the law, and is not captured by special interests. This is a serious risk in that these special interests have vast resources at their disposal and privileged access to regulators. The broader public, as well as groups like the trade unions and non-financial business representatives, as well as think tanks that aim to represent them, have far less access in the current structures. As suggested by the European parliamentarians quoted above, this needs to be changed, by increasing countervailing analysis by think tanks not linked to financial interests, both in developed and developing countries. A final tier is that of implementation of regulation via supervision; as we argue above, the more there are rules that cannot be easily diluted, the more likely that such supervision will enhance the aim of financial stability.

While the “Dodd-Frank Wall Street Reform and Consumer Protection Act” has been hailed as the biggest financial reform bill since the Great Depression by the administration - and it has many important achievements, as described below - the actual scope of legislation is somewhat difficult to discern as much of the regulation to be devised and implemented has been handed over to a body that will be created by the bill, the “Financial Stability Oversight Council” (FSOC). This new body will be formed from representatives of the nine regulatory bodies and one independent member. The idea of creating an FSOC is a positive one, as it will provide an overview of threats to financial stability from different categories of institutions and markets, as well as the inter-linkages between these threats.¹⁰ The FSOC and the expanded regulation for systemically important non-bank financial companies could facilitate the detection of system-threatening exposure amassed in the shadow banking¹¹ and banking systems. These observations¹¹ might facilitate regulatory action aiming at reducing this risk exposure. While the FSOC will have the power to request diversification if risks become too concentrated in certain institutions, this power again begs the question of the capacity of regulators to see and act upon the accumulation of risks. The problem of focussing only on systemically important institutions, as the US legislation does, is that most correlations change - and increase - during crises, often in unexpected ways. This means that it is hard to always know ex ante, what financial institutions are systemically important and why.

The evident incapacity of regulators and market actors to understand ex-ante asset correlations in the last crisis should

¹⁰ The function of the Financial Stability Oversight Council to analyze the interconnectedness of banks and financial companies in the system, for example through debt or other exposures to each other, might help in the future to allow for a more-informed decision making by public policy-makers in the case of crises (for example, not to let Lehman go bankrupt as it was too systemically important).

¹¹ This title refers to legal entities which intermediate between borrowers and lenders including [hedge funds](#), [SIVs](#), [conduits](#), [money funds](#), [monolines](#), [investment banks](#), and other non-bank financial institutions (D’Arista and Griffith-Jones, op. cit.).

caution against an approach which emphasizes the capacity of regulators to understand and contain these risks. Instead, simplifying the financial system, for example, by banning practices which increase the interconnectedness and fragility of the system seems more promising. Unfortunately, the current legislation does far less in this direction than initially envisioned.

We summarize the main changes of this legislation in the matrix below, where we list why certain measures are desirable, which changes were initially envisioned by the administration (as reflected in their rhetoric) and what the final bill will actually do.

Regulation of Wall Street	Desirable	Rhetoric of the administration	Reality
Proprietary trading of banks (Volcker-rule)	Needed in order to reduce interconnectedness due to funding strategies (repos) that rely on borrowing from other financial institutions and to prohibit speculation in institutions where taxpayer guarantees to protect depositors lower the cost and increase the incentive for risky behaviour.	“In recent years, too many financial firms have put taxpayer money at risk by operating hedge funds and private equity funds ... When banks benefit from the safety net that taxpayers provide ... it is not appropriate for them to turn around and use that cheap money to trade for profit.” (President Obama, January 21 st 2010)	Rule has been adopted and other provisions will limit borrowing among financial institutions. However, the bill will allow banks to hold on to hedge fund and private equity funds equal to 3% of their Tier 1 capital. Furthermore, there regulators will have problems distinguishing between proprietary trading and trading for clients, which almost certainly will allow loopholes.
Transparency and margins in the derivatives market (called swaps market in the legislation).	Needed in order to increase systemic stability, as all sellers of derivatives (including non-banks such as AIG) will have to hold capital in order to be able to cover their contractual obligations. Transparency is also needed to improve understanding of market activity by regulators and market participants.	“I will propose strong trading and mandatory clearing requirements, higher capital standards for systemically important market participants, real-time reporting of derivatives trades to regulators and the public, and laws which will ensure that all loopholes are closed.” (Senator Blanche Lincoln, in a letter to Senator Cantwell et al.)	Transparency and margin requirements will be instituted for all derivatives which can be cleared through clearing houses. Those for which no clearing house can be established and those involving end-users will be exempted. Regulations covering who and what will fall under these categories will be established by rulemaking.
Swap trading by banks (Lincoln amendment).	Should be banned, in order to prohibit speculation by federally protected institutions, reduce interconnectedness and thereby reduce systemic risk.	“In my view, banks were never intended to perform these activities, which have been the single largest factor to these institutions growing so large that taxpayers had no choice but to bail them out in order to prevent total economic ruin.” (Senator Lincoln, May 5 th 2010, press report).	Banks will be allowed to continue to conduct the majority of their derivatives business (such as foreign-exchange and interest-rate swaps) and hedge their own activities, but they will have to push out to subsidiaries any trading of non-investment grade entities, commodities, and credit default swaps.

Capital ratios	Capital adequacy ratios need to be increased and definitions of capital tightened in order to make banks more stable in the face of unexpected shocks.	In Pittsburgh, G20 Leaders noted the unique risk posed by Systemically Important Financial Institutions (SIFIs) highlighting that in addition to proposals to increase capital adequacy, for banks in general, the FSB should “propose ... possible measures including more intensive supervision and specific additional capital, liquidity, and other prudential requirements.” (White House Press Secretary, June 27 th 2010).	Some forms of hybrid capital will be phased out except for bank holding companies under \$15 billion in assets. BHCs will have to consolidate their capital ratios for their structure as a whole. Final regulation on how much new capital banks need to raise is pending (awaiting international agreements) but US regulators must issue rules establishing requirements to address risks arising from significant activity in derivatives, securitized products, financial guarantees, securities borrowing and lending and repos, and from asset and market concentrations.
The problem of too big to fail	Banks should be reduced in size in order to stop cheaper borrowing for banks which are deemed too big to fail and thus to avoid the high fiscal costs of rescuing huge banks which are engaging in businesses which are too risky.	“Never again will the American Taxpayer be held hostage by a bank that is “Too big to fail” (President Obama, January 21 st 2010).	The legislation does not require the break-up of big banks but the Financial Stability Oversight Council may require a systemically important company to take remedial actions, including selling assets, if 2/3rds of its members find that it poses a “grave threat” to financial stability. Further regulation regarding size might be imposed by regulators after impact studies. Mergers which result in holdings of more than 10% of financial assets by BHCs and financial holding companies will be prohibited after rulemaking by the Fed.

To evaluate the regulatory changes envisioned by the bill on financial market reform of the US Congress, it seems a meaningful exercise to ask how far the new regulations would have helped prevent the last crisis. Will the legislation make the financial system safer than it was in the lead up to the 2007-2008 crisis?

Clearly there are a number of very positive elements in the US legislation, which we wish to highlight first. These include:

- a. The creation of the consumer protection agency, which seems as strong as when originally proposed. This agency has assured funding as part of Federal Reserve funding and is therefore not subject to political pressures linked to

financing.

- b. A resolution authority will be established, which can be managed in the public interest;
- c. The establishment of the Financial Stability Oversight Council (FSOC) is positive as it facilitates coordination of regulators (more details below) and introduces clear elements of consumer and investor protection in oversight of systemic risk.
- d. A limited step in the direction of democratic governance of Federal Reserve banks is included, in that it prohibits private bank members of their boards from voting to choose their presidents.
- e. The implementation of the Volcker-rule and the Lincoln amendment limit proprietary operations by banks, as well as their derivatives dealings. Though unfortunately watered down, these provisions signal a very positive reversal of policy since the era when Glass-Steagall was abolished in 1999.
- f. That hedge funds and private equity advisors will be registered, which implies the Securities Exchange Commission can exert some influence on them even though it is unfortunate that there is neither mandatory disclosure of their activities nor clear rules for their regulation.
- g. Lastly, but very important, derivatives transparency will be improved, as many more derivatives will be standardized and traded through the exchanges.

Two important caveats need to be made here. First, the legislation was weakened due to strong lobbying from financial interests. Key aspects of this seem to have been: the elimination of up-front funding for resolution authority financed by banks; the weakening of the Volcker rule and Lincoln amendment; and that the broader issue of limiting the size of banks was not tackled. A second caveat, which was perhaps even more important, was that so much crucial detail will be left to future studies and to implementation. There is here the fear that the promise provided by the legislation may not be fulfilled in practice. We now turn to a more detailed assessment.

To start with perhaps the most positive element of the reform bill, transparency in the derivatives market will be improved, as will be stability due to margin requirements.¹² The lack of transparency in crucial markets, including over-the-counter derivatives, and thus the impossibility of evaluating counter-party risk as a structural factor, was aggravating the crisis as well as preventing regulatory action *ex ante*. As a regulatory answer to this and other problems, more transparency in the derivatives market will be instituted. A further positive step is that this will allow margins on derivatives to be required. “Standardized” derivatives, which can be traded in clearing houses will be transferred to clearing houses; the SEC has to determine which ones cannot be cleared there and these will remain OTC products (for the difficulty of closing potential regulatory loopholes related to non-cleared trading, see Pagliari, 2010: 34ff). Increasing transparency in these markets and instituting margins will also allow the FSOC to have a better grasp on the connections inside these markets. However, it is unfortunate that there will be so many exceptions for non-standardized derivatives; an alternative would have been to require all derivatives to become standardized. Also, derivatives used by non-financial corporations will not go on exchanges, again undesirable from the perspective of financial stability.

If one faults the ‘originate and distribute’ model of banks which increased the moral hazard for those originating loans, the envisioned changes in the securitization business (forcing issuers of securities to hold more of the tranches and disclose more information) are positive. Securitization, which was hailed as a means to spread financial risks and decrease the costs of borrowing created major problems. It revealed itself as a mechanism that concentrated risk in the banking system (Acharya, Schnabl and Suarez, 2009, p. 1, Greenlaw et al. 2008, p. 35). By forcing issuers of securities to hold a share of the underlying assets in their loan books, the legislation will increase their liability for the quality of loans securitized. However, the minimum now to be held, 5% of securitized instruments issued, might be far too low to change behaviour. The

¹² As Singh (2009) points out, there was a serious lack of collateral in the range of 2 trillion dollars in the OTC-market prior to the crisis.

proposal by Joseph Stiglitz, for a minimum of 20% would be far better for achieving more careful risk evaluation and reduced risk taking. In the same vein, the disclosure of the quality of loans seems promising, but details still need to be worked out.

If one interprets the crisis partly as the outcome of too large, too highly leveraged and too systemically important banks, there is only a very weak cap on size - limiting mergers and acquisitions so that the resulting company does not “exceed 10 percent of the aggregate consolidated liabilities of all financial companies at the end of the calendar year preceding the transaction” (Restoring Financial Stability Act 2010, Sec. 620, point b, page 499). However, organic growth is not restricted and given that the recent mergers and acquisitions have increased the problems of banks which have become too big to fail the weakness in the current legislation is disheartening.

The amendment by Senators Brown and Kaufmann which proposed to cap the size and leverage of the largest banks was voted down (33-61). Under Brown-Kaufman, no bank could hold more than 10% of the total amount of insured deposits, and a limit would have been placed on the total liabilities of a single bank holding company (BHC) to 2% of GDP, and 3% for a financial holding company. Furthermore, a simple leverage ratio of 15 to 1 would have been imposed on banks.

All these measures would have forced the largest banks to significantly reduce their size and leverage, crucial for financial stability. Instead, these decisions are deferred to the Financial Stability Oversight Council, which will take many years to decide and to implement restrictions. It is thus again left to the discretion of this regulatory body, rather than being defined as a rule in law.¹³ The only provision in the legislation that directly addresses leverage is the amendment introduced by Senator Collins (Sec. 171) that forces bank holding companies with more than \$250 billion in assets to consolidate their balance sheets and to reduce their leverage. It does so by expanding the measurement of credit risk exposure to very short-term borrowing, which will most likely reduce the importance of the short-term inter-bank lending market and help limit bank size. It also phases out certain hybrid capital from Tier 1 regulatory capital, which will reduce interconnectedness and make banks more resilient to shocks. While it is not as radical as the Brown-Kaufman amendment, it does go some way in making the system more stable.

In the final analysis however, the Act’s measures to end the “too big to fail” problem by limiting bank size and allowing normal or close-to-normal bankruptcy proceedings appear to be too weak to solve the problem. While it seems to protect tax payers in the next crisis and might prevent some of the major injustices such as the lack of punishment for shareholders and bondholders of banks, it remains questionable how far these provisions will be enforceable in the next systemic crisis.

As an example, one can consider the new enlarged mandate of the Federal Reserve to prop up the financial system in times of crises without propping up individual institutions in conjunction with the capacity of the FDIC to unwind “large financial institutions”.¹⁴ The Federal Reserve can thus inject liquidity, but it is forbidden to step in to help improve the balance sheets of single institutions. This mandate of an “orderly liquidation procedure” relies on the assumption that, in order to contain crises, institutions do not need to be saved but can be safely unwound, irrespective of their size. This means that the outstanding liabilities of failing banks have to be guaranteed by the FDIC in order to avoid ripple effects. To be able to deal quickly with the complexities of such a procedure, banks in the US are asked to provide “funeral plans” for their own undoing, once they become insolvent (the no-bail-out clause). But again, given the unpredictable changes a systemic crisis imposes on markets, how is a bank to foresee market developments in order to write a meaningful plan for self-liquidation? And given these uncertainties, how are regulators to evaluate if these “living wills” contain a meaningful guide for future action?¹⁵

¹³ While regulators might be more flexible and dynamic than Congress, the pre-crisis decisions of regulators were too much in favor of the regulated.

¹⁴ This formulation implies an expansion of the mandate of the FDIC to also cover large non-bank institutions.

¹⁵ These “living wills” might become the most contentious documents for future regulatory debate between these large banks and their regulators. If regulators can show that too-large conglomerates cannot be wound down safely or that large banks are too big to be

Furthermore, the capacity of the FDIC to shut down these institutions implies the capacity to hold on to a (big) part of the assets of the banks on the FDIC's balance sheet for an extended period of time, as the bigger the bank and the crisis, it is possible that there is no immediate buyer for these assets (as in the Lehman failure). The law makers expect repayment from the bank's assets by making the government the first in line to be repaid and explicitly aims at making creditors and shareholders of banks absorb the losses. However, the bigger and the more leveraged these banks are, the higher the likelihood that the assets of liquidated banks will not bring in enough to pay for their liabilities, which means that the bail-out risk for tax-payers remains. Moreover, the likelihood of a fire sale will aggravate systemic repercussions. Given the lack of clear parameters on which to base the debate regarding potential risks from (unknown) future systemic crises between regulators and large financial institutions, it appears more appropriate to simply ban or separate out parts of the business of banks which appears most responsible in increasing the fragility of the financial system (as has been proposed in the Lincoln Amendment). The current law, by not limiting the size of banks and permitting most of derivatives dealing and other speculative activity to remain linked to banks, could increase the likelihood of a future bail-out.

By not forcing banks to spin-off their derivatives trading, except but for relatively few exceptions, Congress missed a big chance to fundamentally simplify the financial system and thereby decrease the probability of crises, as was done so impressively by the Glass- Steagall Act.

The Lincoln amendment ("the Prohibition against Federal Government Bailouts of Swap Entities" (Section 716)) was one of the most radical measures in the Senate bill (see also Stiglitz FTD 10.06., 2010). It introduced a dividing line between those institutions deemed market makers or active market participants in derivatives trading and those banking entities covered by deposit insurance with access to the discount window of the Federal Reserve. The opposition of banks and regulators led to the application of this measure only to the most risky derivatives such as credit default swaps on junk bonds, while, for example, dealing in interest-rate and FOREX derivatives markets will be allowed for the banks.

Another measure which aimed at simplifying the financial system was the "Volcker rule", which sought to reduce systemic risks and the liabilities of the central banks in crises. The idea, advocated by Paul Volcker, is to update and apply the principles behind Glass-Steagall to separate the relatively high-risk parts of banking from the safer and essential parts relating to the payments system and to the routine credit needs of households and business.

While it is an example of a "clear definition of public interests distinct from the necessarily particularistic claims of private market actors" which according to Underhill and Zhang "is the key to ensuring the predominance of the public good in the financial system" (Underhill and Zhang, 2006: 48), its envisioned application shows the risks of delegating its implementations to regulators. As Johnson (2010) points out, President Obama announced the Volcker rule to great acclaim in late January 2010, but his team could have done more to spell out details which were to make it effective.

According to the Volcker rule, the holding of stakes of banks in hedge funds and private equity funds was to be banned as well as was proprietary trading. The actual language adopted in the Bill (Section 619) seems keen on reducing the conflicts of interests in this area of banking. However, it should be of major importance to reduce systemic risk, not just conflicts of interest, which would justify a much broader ban of proprietary trading.¹⁶ The final legislation, however, allows banks to hold some stake in hedge funds (see matrix above), which would only limit the activity of the most engaged banks (such as Goldman Sachs and J.P. Morgan Chase). Furthermore, the actual banning of proprietary trading will be a very difficult regulatory task in practice, as deals done for customers and those for market making to meet near-term demand will have to be differentiated from dealing for one's own account.¹⁷ Another problem is that the implementation of the legislation

shouldered by the FDIC, the Financial Stability Oversight Council might request more stringent capital and leverage requirements. But then again, arguing on hypothetical grounds, it will be difficult for regulators to prevail against the financial industry.

¹⁶ We thank Professor Stiglitz for this insightful comment.

¹⁷ Some latitude is granted to banks. The higher the flows of business (such as in the CDO market at its height in 2007) the bigger the

can take up to six years.¹⁸

Overall, the US legislation will institute more transparency and, by pushing many derivatives onto clearing houses and setting margins for them, it will improve financial stability, especially in the derivatives market. However, it only marginally limits the size and risk-taking of banks as no simple non-risk weighted leverage requirements are instituted. The problem of banks which have become “too big to fail” is inappropriately addressed. Furthermore, many of the final regulations are still to be decided upon by the FSOC after a review of the different measures available and their most likely impact, which again will leave much to regulators’ discretion when the scrutiny of public opinion most likely has diminished. The legislation does not deal much with the crucial issues of regulating bank solvency and liquidity, as well as potential counter-cyclical regulation as discussed above; these would be dealt separately by the Federal Reserve, partly in coordination with the Basel 3 process, when and if it is agreed.

This US legislation poses the question of expertise and democratic accountability, of how lawmakers and regulators are supposed to deal with the complexity of financial markets¹⁹ and how regulators and indeed markets can be held accountable by their democratic constituency. As Helleiner and Pagliari (2009) point out, the answer prior to the crisis was delegation to regulators who in dialogue with private expertise developed regulations trying to use the forces of the market. An example of such practice that failed to contain risk - and even significantly increased it - was the use of the banks’ models to determine the level of regulatory capital required in the advanced approach of Basel 2. While this approach has been discredited, policy makers now have to find a new answer to the question of financial-market complexity. In order to monitor markets and regulators effectively, Congress will need an independent view on actual derivatives and securities trading by banks. The independent rating agency, which might emerge from the study of the Comptroller General ordered in Sec. 939C of the bill (Restoring Financial Stability Act, p. 1043) could help in this respect. In general, parliaments should focus on obtaining reliable independent expertise other than from their regulators which will allow them in the future to monitor and challenge regulatory practice.

4. Brief Conclusions

This paper has shown how the extreme liberalization of financial markets, accompanied by incomplete and often inappropriate regulation, as well as lack of taxation of the financial sector and the permissiveness of tolerating completely opaque and unregulated instruments and activities (in the so called shadow banking system) led to excessive leverage and risk taking in the financial sector, which caused the largest and most global financial crisis, since the Great Crash in the 1930s. This global crisis has had very negative effects on growth, investment and poverty reduction not only in the countries where it originated but also in the developing world. During previous periods, when finance was simpler, financial markets focused more on the needs of the real economy and were better regulated (as during the first decades of the post-World

latitude for banks.

¹⁸ Regulations to implement the Volcker-rule are to be developed after a study by the Financial Stability Oversight Council (FSOC) and based on their recommendations. The study is to be concluded six months after the bill becomes law and no later than nine months after that date (October 21, 2011) new rules have to be approved. Two years after final rules are issued, all banks must conform their proprietary trading activities, with a potential extension period of up to three years. In addition, banks will have had to divest themselves from stakes in hedge and private equity funds larger than 3%. The regulator can, however, grant a three-year extension, with an additional extension period of up to eight years for illiquid funds. Thus, Section 619 allows a total of seven years for banks to conform their proprietary trading activities, and up to 12 years for total divestiture of stakes in hedge and private equity funds of more than 3%.

¹⁹ In the specific example of the Merkley-Levin amendment, the question is how to clearly separate market-making trading from proprietary trading, as market makers might in the short term have to enter trades which are not entered in by another party in order to stabilize the market. Also the distinction between hedging and speculative activity, which is inherently difficult, confronts the regulators.

War II period). They created practically no costly financial crises and contributed to far more rapid economic growth.

As a result, it has become evident that it is necessary to regulate the financial sector far more deeply and thoroughly; this implies, in particular, restricting leverage to reasonable limits and requires sufficient capital and provisioning as well as liquidity to protect financial institutions in times of stress. Because the main market failure inherent in financial and banking markets is their pro-cyclicality - that is their boom-bust behaviour - an important element of regulation is for it to be counter-cyclical, that is, to be tighter in the boom to discourage excessive lending, and looser in bad times to encourage more lending. Like most regulation we believe this should be done by rules that cannot be relaxed in the boom times, when all, including regulators, fall under the spell that “this time is different” and we can “safely” let the financial activity expand far more than in the past. Such a philosophy has always been proven wrong and ended in tears throughout history.

Activities or instruments which are too complex to understand, or whose risks are too complex to evaluate, should not be allowed. Activities where it seems clear that the potential risks are far higher than the social benefits they generate should also be banned. If risks are seen as very high, but could be acceptable if separated from basic banking (so they are not financed by government-insured deposits and are less likely to be bailed out therefore) can be allowed, but in clearly separate institutions. This was the philosophy of Glass-Steagall in the 1930s and of the so called Volcker-rule and Lincoln amendment in the proposals for 2010 US regulatory legislation. Though clearly such regulations represent a very important and valuable step, doubts can be expressed whether any barriers they establish will not be eroded through time either by continuous pressure from the financial sector to change such regulations or by their de facto actions to undermine it. In fact, the US legislation approved in 2010 has already eroded the strength of the initial proposals by Volcker and Lincoln, as well as by other Senators and Representatives with strong regulatory intentions, by establishing a number of fairly major exceptions, (see above).

A similar philosophy of at least partially segmenting financial markets can be applied perhaps between countries, via for example prudential capital regulations, an instrument again possibly relevant today as short-term private flows to many developing countries are in some of them beginning to be excessive, posing the risk of bubbles emerging.

There was another anomaly about the financial sector: the fact that many of its transactions, such as currency transactions or derivatives, were not taxed at all. This may have also contributed to its excessive growth, and excessive risk taking. Therefore taxes on financial activities that produce negative economic externalities may be a useful complement to appropriate regulation. More research seems to be required on where regulation or taxation, or both, are most appropriate to minimize systemic risk, and how best these should be designed to avoid financial actors gaming the system, while making the financial sector more efficient to provide services required by the real economy.

Because the scale of financial activity is so very large, and in many cases, such as currency transactions, untaxed, there seems to be a very strong case for a small levy on all foreign-exchange transactions to fund global public goods, such as poverty reduction and avoiding climate change in the developing world. This would allow those who benefit most from globalization to help those who benefit least from it, as well as helping finance global public goods essential for making such globalization sustainable. A global currency transactions tax is very easy to implement because the infrastructure for global real-time settlements (introduced after a previous crisis, the Herstatt one), is available for introducing such a tax easily and with low cost.

After the most serious phase of the crisis, there seemed to emerge a broad and strong political consensus, for example, amongst the political leaders in the G20, and in a number of both official and academic detailed reports that the financial sector should be tightly regulated through, for example, adequate levels of capital and liquidity. There also seemed to be consensus that both transparency and regulation should be comprehensive, so as to avoid excessive threats to financial stability emerging from the shadow banking sector. Principles such as curbing “too big to fail”, the need for counter-cyclical regulation and the need to limit bonuses and other remuneration practices that increase risk-taking seemed also to gain clear acceptance. As regards taxing the financial sector, strong political support seemed to emerge for taxing currency - or more broadly financial - transactions.

However, this rhetorical acceptance has led until now to very little effective action, particularly at the global level; “reportology” (issuing several reports often sequentially without resulting measures being taken) and “comitology” (numerous meetings to discuss coordination of regulations without a concrete outcome) seem to have become a substitute for action! If Basel banking regulations are effectively tightened by the end of the year, this could prove to be a crucial step forward, but this is as yet unclear due to strong lobbying from the financial sector and differences between different countries’ regulators.

The lack of progress on action in global regulation and global coordination of taxation of finance is very unfortunate, as financial markets are global and competitive pressures amongst countries tend to erode national regulation and taxation, leading to a race to the bottom in national regulations, as well as regulatory arbitrage.

However, even if global regulatory action is not forthcoming, or is too limited, it is very encouraging that the US is passing quite effective and comprehensive national legislation on greatly improved regulation. As we outline above, this legislation clearly has limitations, mainly due to the lobbying efforts of the financial industry itself, but also due to the remaining belief in the efficacy of free markets, even though this is so clearly wrong for financial markets riddled with imperfections. But the legislation is a valuable step forward towards regulating the US financial market, which is both the largest in the world and the origin of the recent global crisis. The regulation could also be influential in shaping regulation in other areas, such as Europe, where analysis has been perhaps more thorough, and rhetoric possibly more radical, but action has been far less. The legislation will also impact the developing world, both in terms of its intellectual influence, and indirectly, to the extent that it helps (or not) avoid future crises originating in the US.

Finally, we have analysed how the power of the financial sector limits the ability of independent regulations being designed and appropriate supervision being exercised. This happens through a number of channels: providing significant funds for elections; passing through revolving doors between regulators and the private financial sector; and intellectual and macroeconomic capture. There has been too much of a bilateral dialogue between the financial sector and its regulators, leading often to regulatory capture, with disastrous effects for the society at large.

It is important in determining regulation to strengthen the countervailing voice of those who give far greater priority to financial stability and who see the need to have a financial sector that serves the real economy, instead of undermining it; this countervailing voice needs to be strengthened both politically and technically. It is thus necessary to strengthen both analysis and lobbying on financial regulation by those who represent unions, non-financial enterprises (both SMES and larger corporations), pensioners and with them pension funds, independently-minded academics and think tanks, as well as civil society. Also the voice of elected representatives in parliaments, both from developed and developing countries, needs to be strengthened and backed by solid, as well as independent (non-captured), economic analysis on how best to regulate and tax the financial sector. Such countervailing activity is particularly important in times like the present, when the massive debates about the future of finance are raging, but are also of key importance on a more continuous basis when regulations are being implemented; the latter is typically a point in which vested interests play an even more pervasive role.

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