ISSUE BRIEF

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TAMING FINANCE BY EMPOWERING REGULATORS — A SURVEY OF POLICIES, POLITICS AND POSSIBILITIES

This is a summary of a Discussion Paper published by UNDP in August 2010. It examines important and desirable reforms of the architecture for international financial regulation and taxation, from the perspectives of technical desirability and political feasibility. It identifies the main political and technical hazards and indicates how to increase the chances that these reforms will actually occur.

Recent experience has shattered the illusion that financial markets are efficient, and that they need little or no regulation. It is now clear that governments need to intervene, through both regulation and taxation, to avoid frequent crises and ensure that financial markets better serve the real economy.

Unlike earlier financial crises, such as those in the 1990s in Latin America and Asia, the crisis that started in 2007 emerged from the centre of the capitalist system – the US financial sector – provoking not just sudden economic contraction in many countries, but also causing serious social damage, through increased unemployment, for example, and either higher poverty rates or slower poverty reduction.

On a more positive note, unlike the previous major US financial crisis which provoked the Great Depression of the 1930s, this time governments were in a stronger position to respond. Economists had better statistics and more tools to understand the problems, and governments also had a wider range of policy instruments and used them to take quick and well-directed action that helped avoid a major recession. This time they were also helped by the dynamism of China and India, and the ability and willingness of these and other Asian governments to stimulate their economies and support global economic growth.

These government responses may have helped avert a major recession, but such action is not a long-term solution. Instead what is needed is more fundamental reform of financial sectors that have been growing out of control – expanding too rapidly and increasing their activities and profits far faster than the growth rates of real economies. Often they have done so on the basis of short-term, speculative transactions that can distort markets and cause enormous harm to the real economy – creating **credit crunches**[1], destroying wealth and undermining confidence. This has not only damaged the livelihoods of millions of innocent bystanders but also represented a 'threat to the sovereign' – making huge demands on public resources and reducing the state's capacity to provide welfare.

The traditional function of a stable financial sector has been to channel resources from savers to borrowers – whether entrepreneurs who want to invest in new projects, households who want credit to buy houses or goods, or governments who need to borrow to finance public debt. At the same time, financial markets have served to screen projects by financing only those which are likely to be viable and profitable. In modern economies financial markets can also provide more sophisticated services. They can, for example, provide **liquidity**[2], by making it easier for investors to buy and sell financial assets. They can also help investors reduce risk by offering products that serve as forms of insurance. A financial sector can be deemed efficient when it performs all these functions satisfactorily without regularly collapsing into crisis.

Reforming markets so that they perform these functions well and sustainably should involve both greater taxation and regulation. This is long overdue. Compared with other markets, such as retail sales which are subject to value added tax, financial markets operate with scarcely any taxation on their transactions.

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[1] Credit crunch – This refers to a sudden reduction in the availability of credit because lenders are nervous that the borrowers might become insolvent and unable to repay.

[2] Liquidity – In financial markets this means being able to buy and sell assets easily, converting them into cash as required.

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As a result, governments not only lose potential revenue, they also miss the opportunity to assess the scale and legality of financial operations and also know very little about large parts of the financial markets.

As well as being largely untaxed on their transactions, the financial markets are also lightly regulated. The only financial subsector subject to detailed supervision and regulation is banking, while many other actors and transactions that make up the '**shadow banking system**'[3] are mostly unregulated. Some analysts see regulation and taxation as alternative instruments. The reality is the opposite since one reinforces the other. Taxation, for example, by providing better data, will facilitate superior regulation.

The following text examines some important desirable reforms of the international financial regulatory and taxation architecture, both in terms of technical desirability and political feasibility. It is divided into three sections:

- The political and economic determinants of reforming finance;
- The potential for taxation on financial transactions;
- The need for regulation, and the forms it could take.

It concludes with an assessment of recent financial reforms in the US.

The political and economic determinants of reforming finance

Much has been said about the need for financial reform. So far, however, at the global level at least, this has amounted largely to 'reportology' – with some good studies and much rhetoric but very little rule-making. The G20, for example, has made statements of principle, and international bodies such as the **Basel Committee on Banking Supervision**[4] have outlined the right objectives and pointed to directions for desirable reform, but offered till September 2010 no specific road maps for action.

This inaction is due partly to the lack of a legislative and executive body that operates at a global level. Many financial markets are global, so regulating on a national basis runs the risk of financial activity moving to the countries and centres that are least regulated.

Most countries have proved unwilling to accept global regulation on the grounds that this would mean pooling national sovereignty, not appreciating that this would actually increase their regulatory power – and thus sovereignty – over financial markets. The situation changed when in September 2010 the regulations agreed by the Basel Committee were approved in principle. Governments considering cooperation on reform are faced with the complexity of reaching agreement among regulators of different countries and financial sectors. Due to limited action at the global level, this analysis focuses primarily on national regulation.

Figure 1 – Political time horizons and financial regulation

	Short-term	Long-term
Public	Politicians	Regulators
Private	Financial Institutions	Citizens

At the national level, a major obstacle has been the resistance by domestic financial sectors which have lobbied national treasuries and central banks to defend the perceived competitiveness of domestic financial systems. Figure 1 illustrates this process by considering the political time horizons of the various actors, both public and private. In the top left are politicians who in democracies have a strong interest in boosting economic growth to enhance their potential for re-election. In the bottom left are financial institutions, which, especially in shareholder systems of capitalism, also have a short-term objective, in this case of boosting profits. In the right-hand column are groups with longer-term perspectives, including regulators who have a public interest in maintaining sustainable economic growth. Below them, in the bottom right, are citizens who, be they homeowners or otherwise, have a strong interest in the future use of their savings, in the long-term viability of the real economy, and in avoiding too much debt. During the recent boom period, financial institutions spent a great deal of time dragging the regulators down into their quadrant. Politicians also had an interest in this trend in order to artificially spur growth. Even some citizens agreed with this, particularly those able to profit from short-term **asset bubbles**[5].

There seem to be three main determinants for achieving meaningful financial reform:

[3] Shadow banking institutions – These are similar to banks in that they broadly link investors and borrowers. But rather than collecting deposits and using these as the basis of loans, they instead serve as intermediaries by putting lenders in touch with borrowers, a service for which they can charge a fee. The shadow banking system includes investment banks, hedge funds, private equity investors and different forms of insurance operation. Since these do not take deposits from the public they are considered 'non-banks' and do not have to comply with banking regulations.

[4] The Basel Committee on Banking Supervision – This is an international financial regulatory group whose members come from 27 developed and developing countries. The Committee has no formal authority, but instead formulates broad supervisory standards and guidelines in the expectation that individual authorities will implement these in the ways best suited to their own national systems. In this way, the Committee encourages convergence towards common approaches and standards.

[5] Asset bubble – This refers to an excessive rise in the price of a particular asset, such as housing, driven largely by the belief that the price will continue to rise. Once this belief falters, the bubble is burst and the price of the asset is likely to fall steeply.

1. *The dominant intellectual discourse and paradigm* – This is particularly the case for governance of financial markets which, in the absence of global governance, relies heavily on making rules that most governments would consider legitimate.

2. *The power of vested interests* – During a boom, financial interests become extremely powerful, and continue to have a great deal of influence on policy-making, while blocking regulatory reform and efforts to improve the transparency of financial markets. This can ultimately amount to 'regulatory capture' – when vested interests become the dominant influence in shaping the public regulations that govern their activities.

3. *The stage of the economic cycle* – If it has been a long time since the previous financial crisis there will be an element of 'disaster myopia', meaning that when crises seem distant and unlikely there is less enthusiasm for intervention: 'if it ain't broke, don't fix it'. As a result, the most propitious moment for reform is during the crisis when financial interests are being massively bailed out by the government. At this point, under greater public scrutiny, financial interests are at their weakest. Even then, however, reforms can be trapped in a form of 'catch 22'. On the one hand, during the initial phases of the crisis policy-makers, overwhelmed by fire-fighting, have little spare capacity for reform. On the other hand, as the 'green shoots' of economic recovery emerge, it is argued that over-regulating the still-fragile financial sector would limit its ability to provide credit for financing economic recovery. Indeed, the financial industry is currently deploying this argument to combat meaningful changes.

The way out of this apparent dilemma is to devise the regulations in the aftermath of the crisis, when political appetite is greatest, and then implement them once the recovery is in place. Even then, those opposed to change tend to manipulate the discussion to make it seem impossible to introduce good regulation at any stage: unnecessary in the boom, and perverse in the bust.

And overshadowing most efforts at meaningful reform is a strong belief that free markets can largely be trusted to work efficiently – despite clear empirical evidence and convincing theoretical analysis to the contrary. Changing this belief system is particularly tough in highly finance-dominated economies, such as those of most Anglophone countries.

The framework of conservative opposition

Similar arguments against other progressive reforms have been deployed in the past. A framework for understanding such objections is Albert Hirschmann's 1991 study *The Rhetoric of Reaction*. He identifies three conservative theses that have been used through the centuries to block progressive reforms – the perversity thesis, the futility thesis and the jeopardy thesis.

The perversity thesis – The perversity thesis reflects the 'invisible hand' doctrine of Adam Smith which holds that the economy works in a 'natural' way and that regulation interferes with 'beneficent equilibrating processes'. Conservatives using this thesis do not need to launch an all-out attack on the reform's objective – in this case greater financial stability. Instead, they will formally endorse it, but then try to prove that the proposed well-intentioned action will, through a chain of unintended consequences, push society in exactly the opposite direction. And in the financial markets the conservative forces are so powerful that in the short-term they can demonstrate the correctness of their thesis by responding in such a way as to make their prophecy self-fulfilling.

It is, of course, certainly possible for any action to have unintended consequences, but it is absurd to suggest that these will always be negative. Indeed, in the past, many public-policy side-effects have proven welcome: compulsory public education, for example, had the largely positive but unintended benefit of enabling more women to become employed.

Furthermore, even if some effects are negative the net result may still be positive. For example requiring **derivative contracts**[6] to be standardized so they can go through exchanges might make it more difficult for traders to hedge their positions quite so precisely. But these micro-economic costs would be vastly outweighed by the ensuing benefits for financial stability.

The futility thesis – The second argument deployed against reform is the 'futility thesis'– that the actions proposed will have no effect at all. This is often generalized 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, for example, that any regulation or taxation will simply be avoided or evaded. This implies that the financial sector is above the law. Clearly this is not true. Financial markets are social constructs embedded in society and thus influenced

[6] Standardized derivatives – A derivative is a financial instrument whose value is based on, or 'derived' from, the price of something else. A common derivative is based on the future price of a commodity. A manufacturer of instant coffee, for example, wanting to protect itself against future price fluctuations will buy coffee 'futures' – at a price that the seller of the future will guarantee to deliver. For common grades of coffee this will be available through a public futures exchange. However a company that uses a very specific grade of coffee may not find this available on an exchange and thus need to seek out a specialist individual seller which would result in a private, 'over-the-counter' transaction.

by existing laws and regulations. As with any social construct, financial markets and their behaviour can be modified over time – as for example by the **Glass-Steagall Act**[7] in the US, which separated retail banking from investment banking. Smartly designed regulations will minimize the chances that governments will be outflanked by financial actors.

Instead of predicting futility, a more nuanced thesis would be to argue that financial markets have intrinsic characteristics that are difficult to change, such as their propensity for booms and busts. Even here, however, having identified historical patterns it should be possible to design regulations that will smooth out this cyclical behaviour.

The jeopardy thesis – A third argument is that the proposed reform, though perhaps desirable, comes at unacceptable cost of jeopardizing other achievements. An influential example is the contention of the conservative economic philosopher, Hayek, that the welfare state, whilst it may have desirable features, implies government interference with the market that will ultimately destroy liberty and democracy.

It can be argued that restricting the freedom of the financial sector will undermine its capacity to provide credit to finance economic growth. This is a valid concern, as long as banks, for example, are actually providing credit. There may also be cases when additional regulations would make it more difficult to finance certain activities. For example, one of the reasons why some institutions get into difficulty is that they borrow almost entirely from short-term depositors, while themselves lending over longer periods – resulting in a 'maturity mismatch'. If the sources of short-term credit suddenly become nervous and decide not to lend – provoking a credit crunch – this maturity mismatch can cause difficulties. Introducing regulations to minimize such mismatches may help avoid crises but may also make it more difficult for mortgage providers, for example, to make long-term loans. The solution is not, however, to permit potentially hazardous maturity mismatches. Instead governments can encourage companies that have mismatches to take on more long-term assets or to make use of public guarantees or public loans.

It should be noted that the jeopardy argument seems more forceful if there has not been a crisis for a long time. If financial markets are performing well, regulators can be reluctant to 'jeopardize' their achievements. This argument may seem absurd at present, in the aftermath of a serious financial crisis, though surprisingly it is still deployed, albeit with far less convincing effect.

Proposals for a tax on financial transactions

In recent years, governments have been considering various 'innovative sources of financing' in order to generate funds for overseas development assistance or contribute to 'global public goods' such as the elimination of infectious diseases or mitigating climate change. Some countries have, for example, introduced taxes on airline tickets.

Another potential source of funds is a tax on financial transactions. Such a tax could generate significant resources. Even a small tax – half a 'basis point', or 0.005% – applied, for example, only to foreign-exchange transactions of major currencies could generate more than $30 billion annually. The global financial crisis has sparked a surge of interest and support for such taxes in industrialized countries, not only from civil society but also from a number of governments, including that of the UK, which has the world's largest financial centre for foreign exchange transactions. Indeed both France and Belgium have already passed legislation to implement such a tax, should it be implemented multilaterally.

The principle of taxing financial transactions nationally is by no means new. The UK, for example, has a very effective stamp duty on all sales of stocks – 0.5%, or 100 times the rate suggested for currency transactions. And many countries, including the United States, apply 'stamp duties' on mortgages and certain other financial transactions. In Latin America, Brazil and Argentina have for many years applied taxes or levies on internal financial transactions and sometimes on external ones. Overall, over 30 countries have implemented unilateral financial transactions taxes. Some observers have noted, moreover, that not taxing currency markets is a striking anomaly, which ought to be corrected.

Financial transaction taxes also have a distinguished theoretical tradition. John Maynard Keynes, for example, in his classic 1936 book *The General Theory of Employment, Interest and Money,* proposed a small tax on stock-market transactions. In the same vein, in 1972 the American Nobel laureate in economics James Tobin proposed a tax on foreign-exchange transactions in order to cause exchange rates to better reflect fundamental factors; initially he suggested a 1% rate but later reduced this to 0.1%. The 'Tobin tax', as it came to be known, has been widely debated, especially following major financial crises, and has been supported by economists of different persuasions – including Jeffrey Frankel, Peter Kenen, Lawrence Summers and John Williamson, as well as Nobel prize winners Paul Krugman and Joseph Stiglitz. Moreover a new generation of theoretical

[7] The Glass-Steagall Act – The US Congress passed this Act in 1933 to stop commercial banks engaging in the kind of riskier transactions that are typically undertaken by investment banks. The Act was repealed in 1999 following which there has been much greater overlap between different types of multifunction banks.

models has concluded that a currency transaction tax (CTT), when small, tends to reduce the volatility in currency markets.

An added attraction of a CTT on large transactions is that a high proportion of these are made by richer people, so this tax is likely to be 'progressive' – rising progressively according to income.

In recent years, such taxes have also become much more feasible. Technological development and the use of highly centralized and automated clearing and settlement houses would minimize the costs of collection and lower the risks of evasion. Institutions such as SWIFT and CLS Bank, for example, maintain complete records of currency transactions, making it much easier and less expensive to impose taxes.

Current proposals for a CTT have, however, diverged somewhat from Tobin's initial suggestions. Now the aim of the CTT would not primarily be to discourage transactions that undermine financial stability but more to generate funds. For this purpose the tax would be levied at a low rate so as to avoid distorting effects on the foreign exchange markets – indeed at a rate lower than the commissions and spreads already charged by financial institutions for such transactions.

The argument for a lower tax with this single, fund-raising objective can be seen partly as a response to a principle put forward in the 1950s by development economist Jan Tinbergen who argued that, to be effective, each policy instrument should have only one aim. More significantly perhaps, this approach has recently found favour with politicians in developed countries who are attracted by the idea of a new tax that can finance global public goods. As a result, important sectors of civil society – for example, the very active non-governmental organizations in the UK, as well as parts of the academic and policy literature – have switched to support for this lower, revenue-raising tax – on the assumption that other goals such as fighting volatility and ensuring financial stability are better achieved by more precise and sharper instruments, such as financial regulation and capital controls.

However, given the severity of the recent crisis some studies are returning to the idea of using such a tax to curb volatility. One proposal, for example, suggests a variable rate that could be increased at times of speculative attacks. Such proposals, which are more influential in continental Europe and more radical US circles, also tend to prefer a broader tax on all or most financial activities.

The most likely sequence, however, would be to start with a tax on currency transactions as a pilot and then extend the principle to other financial transactions. A number of official reports from the IMF, for example, and the European Commission, have now concluded that currency transactions taxes are feasible. Ideally, such taxes would be introduced at the multilateral level, though they could be applied to major individual currencies. Detailed studies have already been done for the euro and the pound sterling.

There have been two recent reports on financial taxes. The first was written at the request of a leading group of governments, including the UK, France, Japan, Germany, Spain, Belgium, Brazil, Chile and others by the Taskforce on International Financial Transactions for Development (TIFTD). The second report was written by IDEAS, a think tank that is close to the Spanish government.

The Taskforce on International Financial Transactions for Development

The TIFTD aims to address the 'global solidarity dilemma' – the fact that the growth of the global economy has not been matched by effective means of paying for global public goods. In the view of the committee, since the financial sector is the primary beneficiary of globalization it also is the most appropriate channel for redistributing some of the resulting wealth. The report considers a number of options but looks most closely at a multi-currency transaction levy (CTL) collected centrally.

Global currency transaction levy – The CTL would apply to foreign-exchange transactions on all major currency markets at points of global settlement and the revenues would go directly into a 'Global Solidarity Fund'. Technically, this should also be easy and cheap to implement. There might be some risk of avoidance if currency traders were tempted to side-step global settlement systems, but this might be addressed, for example, by legislation to the effect that currency transactions not going through centralized settlements were non-enforceable legally.

IDEAS

The IDEAS report argues for taxes not just as sources of revenue but as instruments of economic policy. Such taxes can, for example, provide governments with information about the volume of trade while also discouraging transactions that generate more social costs than benefits. The report argues that these taxes can reduce volatility and increase transparency and thus encourage production activities.

Like the TIFTD, IDEAS argues that financial taxes should be applied at the global level, through the G20 or, failing this, at EU level. It evaluates various possibilities but concludes that the best option would be a tax on all financial transactions at 0.05%, coordinated worldwide and implemented in all financial centres. The power of this tax resides in the fact that it targets neither banks nor citizens in general, but financial operators and intermediaries.

Securing political commitment

The easiest tax to implement would be a very low flat tax on all currency transactions. The infrastructure already exists. All that is required is political commitment. It would certainly have the political support of those concerned with development and with climate change. This coalition, however, needs to be broadened to include, for example, non-financial entrepreneurs, trade unions, and people within the financial industry who wish to improve its very bad image. To ensure broader political support, however, it may be necessary to give part of the proceeds to the countries where the transactions originate. This is less desirable than devoting all the revenues to global public goods, but would increase political feasibility.

Instead, or in addition, there may be transaction taxes to finance national aims, such as reducing budget deficits or financing investment in low-carbon technology. Though this second tax would provoke even more opposition from the financial sector it would greatly strengthen the national social coalition supporting a tax. Even the financial sector may come around to supporting measures that could improve its battered image.

Regulating the financial sector

The most recent financial crisis was the result of an increase in systemic risk caused, among other things, by the integration of capital markets and banks, the excessive increase in **leverage**[8], particularly in the shadow banking system, and the massive growth of credit. Why were governments incapable of dealing with these and other issues through regulation? This was primarily the result of the power of the financial industry which achieved 'macroeconomic capture', 'personnel capture' and 'intellectual capture'.

Macroeconomic capture – As the financial-services sector began to make up a growing part of well-paid employment, GDP and tax revenues, it became more important to politicians who wished to maximize growth – resulting in what might be called 'macroeconomic capture'. The financial sector thus became too powerful to be regulated. This was reinforced by its contributions to political campaigns. Over the last 20 years, the finance, insurance and real estate sector has been the single largest contributor to campaigns in the US, donating more than $2.3 billion. In April 2009, as US Senator Richard J. Durbin told a radio interviewer: "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."

Personnel capture – It is not surprising that government officials are sympathetic to the financial industry since many of them have been employed there, and are likely to work there again.

Intellectual capture – The 'interactive embeddedness' between state and financial institutions has also been furthered by intellectual capture, as public institutions have wrongly adopted the micro-economic assumptions and rationality of private actors. Even more fundamentally, given the belief that markets were efficient and therefore did not need to be regulated, banks have not even had to lobby hard since regulators have been intellectually convinced that light-touch regulation is optimal.

On the other hand, many other people who would benefit from financial stability have been excluded from the debate – trade unions, for example, non-financial companies, academics and other members of civil society. If such groups are to challenge regulators that are deemed to be too close to the industry they will, however, need to build up the necessary expertise. This will mean not just tracking the development of legislation but also monitoring its translation into regulations as well as their subsequent implementation.

One of the basic requirements is to ensure greater transparency. This is especially important in the trade in derivatives – that is, trading instruments that are derived from real assets, such as oil or mortgages or insurance policies. Many of these complex products are traded not in exchanges, as are currencies or stocks and shares, but directly between buyers and sellers in what are termed over-the-counter transactions. As a result most remain private trades that are beyond official supervision. In a more transparent system such trades would need to take place in exchanges where they could be monitored.

The complexity problem

One of the main sources of systemic risk is the complexity of instruments and of legal relationships between banks and their subsidiaries. This complexity can take a number of forms including:

Models and formulae – Much trading now takes place based on intricate mathematical models that purport to predict the future – creating the false impression that speculation is a science. But no matter how sophisticated the formulae, the underlying reality is that the future is inherently uncertain. As the crisis has again shown: the 'emperor has no clothes'. Moreover trades based on quantitative models may be made automatically by computers without human intervention. There is the risk that similar models all receiving the same data could cause all these computers to buy or sell simultaneously, worsening the problem of systemic risk and contagion. Many banks rely on these complex models which can only be understood by specialists who thus command higher salaries that regulators might be unable to match. As a result, most of the expertise on these models resides in the industry rather than in governments.

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[8] Leverage – As a financial term, this generally means using borrowed money as a means of multiplying the returns from a particular undertaking. If, for example, you are sure that a horse will win a race you can borrow money to place a larger bet. This is fine if you win, but if you lose you may end up deeply in debt. Highly leveraged companies operate with a high proportion of borrowed funds.

Collateralized debt obligations – The financial industry has been transforming many financial products that previously had been fairly transparent into ever more complex forms of security. An example, which was at the heart of the recent crisis in the US, is the packaging of hundreds of individual mortgages into mortgage-backed securities. Buyers of these products, known more broadly as 'collateralized debt obligations' (CDOs), do not buy individual mortgages but take a proportion of a whole package in which the mortgages may be bundled with many other kinds of debt. Buyers are thus likely to be unaware of the credit-worthiness of all the borrowers. The situation becomes even more complex when slices of these CDOs are themselves packaged into new securities – 'CDOs of CDOs' or even further into 'CDOs of CDOs of CDOs'. Buyers of these products find it increasingly difficult to gauge the risks they are actually buying and thus to make rational investment decisions.

Structured investment vehicles – Banks are limited in the amount of loans they can make by the requirement that they hold a certain amount of capital. The greater the loans on their balance sheets, the more capital they need. One way to evade this restriction has been to create 'structured investment vehicles' (SIVs) that are legally separate entities to which they can transfer mortgages or other assets. This SIV then assumes the risk and sells assets to other buyers. If these assets prove worthless it is the SIV that goes bust rather than the bank – leaving the buyers with no income. In practice, however, in the recent crisis the banks, probably to preserve their reputations, voluntarily continued to back securities that had been issued by their SIVs. The net effect was that banks had shifted debt into off-balance sheet entities, without really losing the risk.

These increasing complex processes and products are difficult to regulate. Some governments have attempted to reduce the risk through equally complex regulation. A better approach would be to demand greater simplicity – including banning instruments that contribute to excessive, unmanageable complexity. In future, instead of giving regulators the almost impossible task of determining the extent to which the creators of SIVs will ultimately stand by them, governments could instead forbid banks that are protected by the state from sponsoring SIVs in the first place.

Regulatory gaps and other problems

This section outlines the fields of regulation in which the crisis has revealed the greatest gaps.

Inadequate capital requirements for banks – The amount of capital that banks are required to keep in reserve depends not just on the volume of loans but also on their risks of default. The requirement is thus 'risk-weighted' with more capital required for riskier loans. As the most recent crisis showed, however, even banks which appeared well capitalized according to these risk-weighted criteria got into deep trouble due in no small part to the embedded but largely unacknowledged risks in new financial products such as CDOs of CDOs and the use of off-balance sheet entities such as SIVs.

The required risk-weighted capital also proved inadequate in the face of the banks' 'proprietary trading' as they bought and sold investments not for their customers but on their own behalf – effectively betting speculatively on asset price movements in the hope of making a profit, but often holding no capital against the risk that they lost their bets.

Low liquidity cushions – Many banks adopted strategies that depended on their borrowing large amounts using **short-term paper**[9] – in order to fund a sizeable proportion of the longer-term loans. This worked as long as the markets for both remained 'liquid' – that is there would always offer sufficient buyers and sellers of loans. This took little account, however, of the possibility of liquidity or credit shocks – that risk-averse lenders in the **money markets**[10] might stop lending at times of high uncertainty. This 'liquidity illusion' was exacerbated by the fact that many of the transactions in the money markets were between only a few institutions and did not allow for what would happen if one of the big players dropped out.

Because there was practically no liquidity regulation, and financial institutions had incredibly low liquidity cushions, this became a major cause of problems. If regulations are to reduce financial fragility they will need to reduce banks' dependence on short-term money markets for their liabilities and to install higher liquidity buffers in case these markets stop working. One good way of doing this would be to set liquidity requirements based on the **residual maturity**[11] 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 that have 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. It is encouraging that the new Basel III proposals include regulation on liquidity.

Counterparty risk – Another potentially destabilizing factor was the growth in direct over-the-counter trading (OTC) – rather than buying and selling through exchanges. This creates the potential for 'counterparty risk' – the buyer might go bust before the payment was made. For example, in the foreign exchange markets in the US, 90% of derivatives were traded directly between the five largest banks which had built up an intricate web of mutual obligations. But as large maturity mismatches and

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[9] Short-term paper – This is similar to a bond, but with a much shorter life-span, less than 90 days.

[10] Money markets – This is a form of wholesale market through which financial institutions, including banks, lend and borrow large sums of money and other financial instrument between each other, often over short periods, including overnight.

[11] Residual maturity – This is the remaining time until the expiration or the repayment of the instrument.

liquidity crises menaced insolvency for some banks these risks were transmitted to their counterparties threatening chain bankruptcies. If we are to avoid the possibility that some banks are too big or interconnected to fail, the large banks at the centre of the financial system will need to be disentangled.

Low coverage of regulations – 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 which borrow money to speculate on behalf of their clients. Nor did it cover proprietary or over-the-counter derivatives, the extent of which was unknown, making it impossible to ascertain the solvency or liquidity of banks. Derivatives contracts should instead be traded through clearing houses.

Pro-cyclical models – The key problem of these models was that based on current market prices they are inherently pro-cyclical – that is they tend to follow and amplify current trends. Everyone thus tends to move together as a herd which when things go wrong tends to deepen contagion. To counter such tendencies, regulation needs to be counter-cyclical – to dampen down excessive market optimism which leads to boom-bust patterns. Spain, for example, has successfully implemented counter-cyclical measures for almost ten years – providing an excellent precedent for other countries. Thus, if cheap credit is encouraging people to take risk, regulators can, for example, raise capital requirements, or increase the **loan-to-value ratio**[12], or introduce counter-cyclical leverage ratios. These seem to work best if they follow predetermined rules, so that certain restrictions kick in automatically once credit has reached certain levels. These rules could be tightened in special circumstances, but never loosened during booms.

There is a risk that, as a result, small businesses may not be able to get enough credit, so special measures may be needed to provide them with sufficient long-term credit. There is also a risk that corporations that have direct access to international capital markets may instead borrow abroad – hence the need for international coordination of regulatory policies.

It is important to agree such regulations in the wake of a crisis when political appetite for regulatory reform is highest. But such rules should begin to operate gradually and only after the economy is clearly recovering and financial institutions have become stronger.

US financial reform

This section looks at the extent of financial market reform in the US. This is partly because reform has moved fastest here than elsewhere but also because the US financial system is the world's largest, so changes here will be influential globally.

Progress has been faster in the US first because popular anger led to strong lobbying – by the trade unions, progressive think tanks and others. Second, more progressive forces were encouraged by the success of passing the US health reform bill. Third, the leadership provided by Senator Chris Dodd and Congressman Barney Frank helped strengthen the legislation. There was also support from President Obama, particularly on aspects such as consumer protection.

Progress was slower in the European Union because of the need for agreement among 27 member states. Many valuable proposals were postponed by the blocking tactics of the UK which hosts most of the European funds, by the pressure from US companies to avoid regulation for US funds in Europe, and of course by intense lobbying from the European financial firms. Nevertheless, there are important areas where the European Union seems to be making progress, such as on institutional issues: an ambitious pan-European financial regulatory authority has been approved, for example.

Even in the US, it should be noted that the achievement so far has still only been more in broad strokes of legislation: the 'Dodd-Frank Wall Street Reform and Consumer Protection Act'. In practice, the devil is in the details – the process of implementation which can still be captured by special interests that have vast resources at their disposal and privileged access to regulators.

Much of the US regulation will be devised and implemented by a new body: the Financial Stability Oversight Council (FSOC). The FSOC will have the power to request diversification if risks become too concentrated in certain institutions. But this means that the regulators will need to be in a position to assess which financial institutions are systemically important – which can be difficult since correlations between institutions often shift. In these circumstances a better option would have been to simplify the financial system, for example, by banning practices which increase interconnectedness and fragility. Unfortunately, the current legislation does this far less than initially envisioned. The main components of the legislation are summarized in Table 1, which lists the measures initially envisioned by the administration and what the final bill will actually contain.

Proprietary trading by banks

Paul Volcker, Chairman of the Economic Recovery Advisory Board, advocated what was subsequently termed the Volcker rule which is to update and apply the principles behind Glass-Steagall to separate the relatively high-risk parts of banking from the safer and more routine functions of providing a payments system and meeting the credit needs of households and businesses. Thus, banks that benefit from federal guarantees will not be able to trade on their own account and there will be limits to the stakes they can own in hedge funds and private equity funds. It may prove difficult to differentiate between dealings by the banks on their own accounts and those for customers.

[12] Loan-to-value ratio – In the case of a mortgage, for example, an 80% loan-to-value ratio would mean making a loan for 80% of the value of the property leaving the borrower to provide the rest.

Table 1 – Original intentions and final outcome of US financial regulation.

Regulation of Wall Street	Desirable	Rhetoric of the administration	Reality
Proprietary trading of banks (Volcker rule)	Needed in order to prohibit speculation by institutions that have taxpayer guarantees which lower the costs and increase the incentives 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 21st 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 capital. Furthermore, 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	Needed in order to increase systemic stability, as all sellers of derivatives 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 in order to 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 5th 2010, press report).	Banks will be allowed to continue to conduct the majority of their derivatives business 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 Financial Stability Board should "propose … possible measures including more intensive supervision and specific additional capital, liquidity, and other prudential requirements."(White House Press Secretary, June 27th 2010).	Some forms of hybrid capital will be phased out. Bank holding companies will have to consolidate their capital ratios for their structures 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 a number of transactions.
The problem of 'too big to fail'	Banks should be reduced in size in order to stop cheaper borrowing by banks which are deemed too big to fail. This should avoid the high 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 21st 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. Mergers which result in holdings of more than 10% of financial assets by bank holding companies and financial holding companies will be prohibited after rulemaking by the Fed.

Transparency in the derivatives market

The financial crisis was aggravated because many trades in the derivatives markets were conducted over-the-counter rather than through exchanges. This made it difficult to estimate the extent of counterparty risk. The new legislation requires that those derivatives that can be issued in a standardized form should be transferred to clearing houses. Nevertheless, exceptions are permitted – as determined by the Securities and Exchange Commission. This is unfortunate; a better alternative would have been to require all derivatives to become standardized.

There are also changes in the business of securitization. Many banks had been using the 'originate and distribute' model – that is, originating an initial loan but then converting this into securities that could be sold to others who would thus assume the risk. This had been hailed as a way to spread financial risks and decrease the costs of borrowing. But it also weakened the link between borrowers and lenders. Now the companies issuing the securities have to keep at least 5% of the securities on their own books so that they remain concerned about the quality of the loans – though this proportion may be too low to change behaviour; a better minimum would have been 20%.

The problem of 'too big to fail'

The legislation attempts to limit the size of banks by restricting mergers and acquisition – requiring the resulting company not to exceed 10% of the deposits of all financial companies. It does not limit banks' organic growth but does try to slow this by reducing their leverage. However, these requirements are relatively weak. Some senators proposed stronger restrictions but these were voted down.

For banks that do fail, there are also measures that would permit normal or close-to-normal bankruptcy proceedings through an orderly liquidation procedure. Although the banks themselves would not be bailed out, the Federal Deposit Insurance Corporation will, in order to avoid ripple effects, guarantee their outstanding liabilities. To prepare for this eventuality all banks are asked to provide 'living wills' – instructions for their own undoing should they become insolvent. It may, however be difficult to judge the efficacy of these wills to deal with future circumstances. A simpler and clearer option would have been to ban or separate out the riskiest parts of the banks' businesses.

Swaps trading by banks

One of the most radical measures in the Senate bill is the amendment proposed by Senator Blanche Lincoln. The Lincoln amendment limits the extent to which banks can deal in some of the riskier forms of derivatives. They can deal in interest-rate and foreign exchange derivatives markets but not in the most risky derivatives such as **credit default swaps**[13] or in **junk bonds**[14].

Overall, the US legislation will institute more transparency and, by pushing many derivatives onto clearing houses, will improve financial stability. But it only marginally limits the size and risk-taking of banks and does not adequately address the 'too big to fail' issue. It also leaves too much to the discretion of regulators and does not deal effectively with the crucial issues of regulating bank solvency and liquidity. Counter-cyclical regulation is to be dealt with separately by the Federal Reserve.

The legislation also puts considerable demands on regulators and lawmakers who have to deal with ever more complex financial markets – raising questions of democratic accountability. In general, parliaments should focus on obtaining reliable independent expertise which will allow them in the future to monitor and challenge regulatory practice.

Conclusion

The financial crisis has underlined the importance of regulating the financial sector far more deeply and thoroughly while banning activities or instruments whose risks are too complex to evaluate – or whose social benefits are outweighed by the potential risks. Moreover banks which have government-insured deposits should not engage in risky activities. Regulations to this effect should be accompanied by taxation, and there is a very strong case for a small levy on all foreign-exchange transactions to fund global public goods.

Even if global regulatory action has been slow, it is encouraging that the US is passing quite effective and comprehensive national legislation – though this too has its limitations.

In the future, it will be important to counter the lobbying weight of the financial industry by strengthening the capacity of those who have a strong interest in financial stability. Such countervailing activity is particularly important now when debates are raging about the future of finance, but also vital on a more continuous basis when the regulations are being implemented.

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[13] Credit default swap – This derivative works like an insurance policy. A company that made a loan and is concerned that the borrower will not repay, can take out credit default insurance with a third party. Such swaps contributed to the financial crisis because in some cases the third parties who had sold the swap proved unable to pay up when the borrower defaulted – or had sold it on to another company that was incapable of paying up.

[14] Junk bond – This is a bond which although offering a high rate of return has the disadvantage that the issuer of the bond is considered to be at higher than usual risk of defaulting.