1. Introduction

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1. THE 'FINCRIS' PROJECT

The AHRC-sponsored 'FinCris' project¹ seeks to widen public understanding of the crisis and understanding among officials and regulatory and consumer bodies of the ethical issues raised by it; specifically, how the responsibilities for what went wrong create obligations to some of those badly affected by the crisis.

The project is comprised of three workstreams. This edited volume reports the findings of the project workstream on the interplay between the regulation and taxation of banks. A second workstream investigates the ethical aspects of different forms of lending to people on low incomes from the perspective of social policy, for example addressing questions of access to finance, and what constitutes responsible and irresponsible bank lending and borrowing. The third workstream addresses the question of which institutions were responsible for the crisis itself, and whether individuals, including ordinary consumers and sub-prime borrowers, were also partly to blame. Preliminary conclusions to these investigations point to the importance of not allowing the size and scope of the international crisis to obscure genuine – and pivotal – cases of wrongdoing on the part of particular individuals or groups of individuals, particularly those embedded within the financial sector itself.

The financial crisis is particularly important in the UK, where financial services constitute one of the largest economic sectors and one of the biggest sources of tax revenue (financial services contributed 9.8 percent of the UK's total Gross Value Added (GVA) in 2012 and the financial sector contributed 12.1 percent of total government receipts in 2010–11).

¹ This publication is an output of the AHRC funded FinCris project, reference number AH/J001252/1 (<http://fincris.net>).

2. THE 'TAXATION' WORKSTREAM

This book is concerned with the relationship between the regulation and taxation of banks. There are two predominant ways of taxing banks, with the goal of improving financial stability by discouraging 'excessively' risky activities. One is in the form of prudential regulations imposed by the authorities ('regulatory taxes') and the other is through revenue raising ('fiscal' taxes). Prudential regulations, such as capital and liquidity requirements, have traditionally been the dominant means of trying to ensure banking stability. They provide for a private buffer or insurance of the risks undertaken by individual banks. Fiscal taxation is wider in scope and can provide for public pooled insurance of the risks to the banking system as a whole, which were largely ignored in the run-up to the 'Global Financial Crisis' (GFC). This workstream aimed to focus on the design of a bank regulatory and fiscal taxation regime that would contain the risk of a recurrence of major financial crises to an acceptable (above zero) level, given that there appears to be a trade-off between financial stability and the rapidity of economic growth.

In a paper written for the project entitled 'Taxing Banks Fairly', Andy Mullineux (2012) explored a number of these issues. He concluded that there is no reason to continue to exempt financial services and products from Value Added Tax (VAT) in the UK, or indeed elsewhere. Charging VAT on financial products and services at the prevailing rate in the UK would help to precipitate the end of the iniquitous and inefficient 'free banking' system. Its demise should be enforced by retail banking and insurance utility regulators, which would assure that charges to customers reflect the costs incurred by banks in providing them and thus the 'cross-subsidization' underpinning 'free banking'. Additionally, the shareholders and senior bondholders of 'too big to fail' (TBTF) banks enjoy a guarantee from taxpayers for which they do not pay. This puts the big banks at a competitive advantage in relation to the smaller ones and exposes taxpayers to losses in crises. The big banks should thus pay regulatory and fiscal taxes commensurate with the insurance they enjoy and these taxes should be carefully calibrated and coordinated internationally so as not to overburden domestic banks relative to international competitors. The taxes paid should relate to a bank's risk exposure and the risks a bank poses to the financial system as a whole. The banks should thus contribute proportionately (with other taxpayers) to producing the 'public good', financial stability. The issue of tax bias leads to deductibility of interest, but not dividend payments, as business expense is also considered. To achieve equal treatment of debt and equity, deductibility could be extended to dividends, but the tendency toward over-indebtedness

might be curbed if tax deductibility of interest was eliminated, perhaps starting with banks. Financial stability is a true ‘public good’, in the economic sense that enjoyment of it by one person does not reduce the ability of others to enjoy it, and many or most benefit from it. The taxpayer should thus be willing to share the costs (with shareholders and other funders of banks, including depositors) of providing it. The question is how much explicit insurance of big banks the taxpayer can reasonably be expected to provide, and how much bank shareholders and customers should be expected to contribute, in order to reduce the risk of a crisis to an acceptable level. As far as possible, implicit insurance of big banks by taxpayers should be eliminated.

In a second paper for the project, Andy Mullineux (2013) explores the issue as follows. Bank shareholders cannot be expected to provide good ‘stewardship’ to banks because there is a conflict of interests between the shareholder-owners and a non-mutually owned bank’s depositors, who provide the bulk of the funds in traditional retail banks and are willing to accept a lower return on their savings than shareholders, in return for lower risk exposure. Regulation is required to protect depositors when deposit insurance schemes are, at best, partially funded, and thus underwritten by taxpayers, who in turn need to be protected, and to deliver financial stability. The political influence of big banks in the US and the UK is such that they can be regarded as financial oligarchies that have hitherto successfully blocked far-reaching structural reform in the wake of the GFC and lobbied successfully for the financial sector liberalization that preceded and contributed to it. The TBTF problem and associated moral hazard has been worsened by mergers waved through by the regulatory authorities to save failing banks during the crisis and, as a result, banking sector concentration has increased and competition reduced in a number of national banking systems, notably in the UK, but also in the US. Alternative solutions to making the banks small enough to be allowed to fail are considered in the paper, but it is difficult to be convinced that they will deliver banks that promote the ‘common or public good’. It is concluded that regulation of retail banking as a utility and the pooling of insurance against financial instability using pre-funded deposit insurance schemes, with risk related premiums, that can also serve as bank resolution funds, should be pursued. In addition, capital leverage ratios and/or a Financial Activity Tax (FAT) might be used to ‘tax’ the size of banks’ profits along with their bonus pools.

If too big, or systemically important, to be allowed to fail, banks and financial institutions (‘SIFIs’) are permitted to continue to operate; however, they are likely to continue to be implicitly insured by taxpayers and be able to raise funds more cheaply than smaller banks. This may

give them a decisive advantage over potential competitors, allowing them to reap ‘economic rents’ or monopolistic profits. Should larger banks be required to hold more capital and liquidity reserves than smaller banks, even though they can potentially diversify their risk more effectively? Should they instead be taxed more heavily and should the tax be on profits or bonuses, or both? Further, should a bank’s ‘taxation’ be related to its funding gap (between assets and retail deposits), or set in some other way? Should banking products and services be subject to a Financial Transaction Tax (FTT), or might removing their exemption from VAT be less distortionary?

The appropriate mix of regulatory taxes (for example capital and liquidity requirements) and fiscal taxes needs to be carefully considered in order to avoid double or over-taxation. Wholesale deposit funding by banks attracts a higher bank levy in the UK, but will also lead to higher liquid reserve requirements under incoming prudential regulation. It should also be recognized that pre-funded deposit insurance schemes provide a means for pooled risk-related insurance funded by banks, or their depositors if they are able to pass on the costs. In order to frame the debate, we first briefly review the roots of the financial crisis.

3. CAUSES OF THE GLOBAL FINANCIAL CRISIS

3.1 Micro-economic Causes

The Bank for International Settlements (BIS, 2010) states that the micro-economic causes mainly fall into three categories: flawed incentives; failures of risk measurement and management; and weaknesses in regulation and supervision. Together, these shortcomings allowed the entire financial industry to book profits too early, too easily and without proper risk adjustment.

The crisis disclosed distorted incentives for consumers and investors, financial sector employees, and rating agencies alike. Consumers and investors failed to watch out for themselves by borrowing heavily and investing in overly complex and opaque products, while managers of financial firms, encouraged by compensation schemes keyed to short-term returns and business volumes, increased leverage and accumulated huge amounts of risk. Similarly, rating agencies, overwhelmed by the flood of complex structured products, yet unable to resist the profits from taking on the business, failed to correctly evaluate the probability that borrowers would repay.

The inadequate governance of bank risk management, under which a

lack of support from top management undermined the risk managers, created additional problems.²

Additionally, the regulatory system was too indulgent and regulations were too easily evaded. The BIS (2010) report states that overreliance by regulators and supervisors on market discipline, including the discipline supposedly imposed by credit rating agencies, led to what can only be characterized as an extremely ‘light touch’ in some countries at the core of the global financial system, particularly the UK. When the light touch itself proved too much to bear, financial institutions found it easy to shift selected activities outside the regulatory perimeter to ‘off-shore financial centres’, resulting in an enormous build-up of riskiness.

3.2 Macro-economic Causes

The BIS (2010) report states that the macro-economic causes fall into two broad categories: problems associated with the build-up of imbalances in international claims, and difficulties created by the long period of low real interest rates.

For most of the decade preceding the crisis, persistent and large current account surpluses and deficits generated net capital flows from capital-poor ‘emerging market’ countries to capital-rich ‘developed economies’. The BIS (2010) report argues that competing views on the origin of these flows and the resulting build-up of cross-country claims, in the form of excessive domestic demand in some major advanced economies; a savings glut; a dearth of investment opportunities; demand for international, low-risk assets for portfolio diversification; and/or the building-up of war chests by emerging market economies, are of secondary importance. The point is rather that the symbiotic relationships between export-led growth in one set of countries and leverage-led growth in another generated the large gross flows and huge stocks of claims by residents of the exporting countries on the residents of the importing countries, dubbed ‘global imbalances’. These flows and claims contributed to the mispricing of assets and to the global spread of the crisis.

² (a) The BIS (2010) in its report argues that measuring, pricing and managing risk all require modern statistical tools, which are based largely on historical experiences. Despite data series with a long history, the belief that the world evolves slowly but permanently meant down weighting the importance of the more distant past and its upheavals. Therefore, the long but more recent period of relative stability created the perception that risk had permanently fallen, resulting in an increasing willingness to buy and sell risk very cheaply. (b) Also see Counterparty Risk Management Policy Group, *Containing systemic risk: the road to reform*, Report of the CRMPG III, 6 August 2008.

The protracted period of low real policy rates and low ‘real’ long-term interest rates that began in 2001 also had a number of important effects. Among them was the boom in credit to households in many advanced economies, which fuelled some clearly unsustainable run-ups in housing prices, and the search for yield, which drove institutional investors to take on significant additional risk even when it would achieve only modestly higher returns.

In summary, plentiful liquidity and low interest rates, ‘cheap money’, were the major underlying factors behind the bubble that preceded the GFC. Many have also argued that financial innovation, including the expansion of mortgage-backed securitization and the development of the credit derivatives markets, amplified and accelerated the consequences of excess liquidity and rapid credit expansion.³ In an environment of historically low interest rates, low returns and plentiful liquidity, investors actively sought opportunities for higher yields. Risk was widely mispriced. As a result, an increased number of innovative and complex instruments were designed to offer more attractive yields, often combined with an increased leverage. Specifically, financial institutions securitized their loans into mortgage-backed securities, which were subsequently converted into collateralized obligations, generating a dramatic expansion of leverage within the financial system as a whole.⁴ Financial institutions, often as counterparties, engaged in very high capital leverage ratios of beyond 30, and in some cases as high as 60, leaving them exceedingly vulnerable to even a small decline in underlying asset (property) values, or even their rate of increase.

When asset prices began to fall in autumn 2007, the resulting expected losses could potentially not be absorbed by bank common equity holdings, leading to a serious liquidity crisis through fear of counterparty risk. This resulted from uncertainty surrounding the value of the underlying assets, and the adequacy of provisioning for losses and the underlying capital buffers, thereby exposing the interconnected traditional and rapidly growing ‘shadow banking’ system to substantial risk. Failures in risk assessment and management were further aggravated by the remuneration and incentive schemes within the financial institutions, which contributed to excessive risk-taking by rewarding short-term expansion of the volume of (risky) traders rather than the long-term profitability of patient investment. Moreover, these pressures were not contained by regulatory or supervisory policy or practice and regulations were not effective in

³ Hemmelgarn et al. (2011), Hemmelgarn and Nicodeme (2010), and the de Larosière Report (2009) provide a more detailed analysis of the roots of the crisis.

⁴ See the de Larosière Report (2009) for more detail.

mitigating these risks. For example, capital requirements were particularly light on proprietary trading transactions, while the risks involved in these transactions proved to be much higher than the internal models had expected (EC, 2011).

Both at the global level and within the EU, many governments realized that on one hand, and in contrast to many other sectors of the economy, allowing individual banks and other systemic financial institutions to fail might have been detrimental to the whole global economy. On the other hand, there was no simple way for a ‘systemically important’ bank to continue to provide essential banking functions whilst in insolvency, and in the case of a failure of a large bank, those functions could not simply be shut down without significant systemic damage. Although the actions that governments were forced to take in order to deal with banking institutions in distress (capital injections, guarantees and loans) have managed to stabilize the financial systems, they have also propped up failing institutions and supported creditors, at a huge cost to taxpayers. Moreover, as noted above, the tax-deductibility of interest has the potential to exacerbate behaviours that may have contributed to the crisis (Ceriani et al., 2011; Shaviro, 2011).

4. FISCAL COSTS OF THE RECENT CRISIS

Many G20 countries have provided significant support to their financial sectors.⁵ Although the magnitude and nature of support measures have varied across countries, with support in advanced countries being preponderant, interventions have been generally bold. These support measures include recapitalization and partial nationalization, asset purchases and swaps, asset/liability guarantees, deposit insurance and liquidity support.

4.1 Initial Financing Requirements and Pledged Support

There was significant variation in the announced or pledged support for capital injections and purchase of assets across developed and emerging economies. By the end of December 2009, the advanced G20 economies

⁵ Information in this section is based on the information provided in Appendix 1 of the IMF (2010) report, which is based on responses to survey questionnaires sent to all G20 members in early December 2009. In the questionnaire, countries were requested to review and update staff estimates of direct support to financial sectors, consisting of recapitalization and asset purchases; liquidity support comprising asset swaps and treasury purchases; and contingent support consisting of deposit insurance and guarantees. The period covered for the survey was June 2007 to December 2009.

Table 1.1 Amount announced or pledged for financial sector services, by country (in percentage of 2009 GDP unless otherwise noted)

Country	Capital Injection	Purchase of Assets and Lending by Treasury*	Direct Support**
	(A)	(B)	(A+B)
Advanced Economies			
Australia	0	0	0
Canada	0	9.1	9.1
France	1.3	0.2	1.5
Germany	3.4	0	3.4
Italy	1.3	0	1.3
Japan	2.5	4.1	6.6
Korea	1.2	1.5	2.7
United Kingdom	8.2	3.7	11.9
United States	5.1	2.3	7.4
Emerging Economies			
Brazil	0	0.8	0.8
Russia	7.1	0.5	7.7
G-20 Average	2.6	1.4	4
Advanced Economies	3.8	2.4	6.2
In billions of US\$	1,220	756	1,976
Emerging Economies	0.7	0.1	0.8
In billions of US\$	90	18	108

Notes: (1) The figures in the table are IMF staff estimates based on the G20 survey where columns A, B, C, D, and E indicate announced or pledged amounts, and not actual uptake. (2) The table is adapted from the IMF report of 2010.

* excludes treasury funds provided in support of central bank operations.

** includes some elements that do not require upfront government financing.

*** excludes deposit insurance provided by deposit insurance agencies.

**** includes gross support measures that require upfront government outlays. Excludes recovery from the sale of acquired assets.

Guarantees***	Asset Swap and Purchase of Financial Assets, including Treasuries, by Central Bank	Upfront Government Financing****
(C)	(D)	(E)
13.2	0	0
0	0	9.1
16.9	0	1.1
17.2	0	3.4
0	2.7	2.7
7.2	0	0.4
11.6	0	0.8
40	28.2	8.7
7.5	12.1	7.4
0.5	0	0
0	0	1.9
6.4	4.6	3.1
10.9	7.7	5
3,530	2,400	1,610
0	0	0.2
7	0	24

had pledged \$1220 billion of capital injections and \$756 billion of asset purchases, respectively; equivalent to 3.8 and 2.4 percent of GDP (Table 1.1). The corresponding amounts in the emerging G20 economies were \$90 and \$18 billion, respectively; 0.7 and 0.1 percent of GDP (Table 1.1). In addition, Table 1.1 shows that within both the groups, there was significant variation in the announced amounts allocated in these two categories, with the bulk in advanced economies accounted for by Germany, Japan, the UK and the US, while others provided no support. The IMF (2010) shows that substantial funds were pledged to guarantee banks' wholesale debt and interbank liabilities, almost entirely in advanced economies (10.9 percent of the GDP of advanced G20 economies, as shown in Table 1.1). Central bank support was provided primarily through the expansion of credit lines; scaling-up of liquidity provisions; purchases of asset-backed securities; widening of the list of assets eligible as collateral; and lengthening of the maturities of long-term refinancing operations (7.7 percent of GDP of advanced G20 economies, as shown in Table 1.1). Several governments also expanded the coverage of deposit insurance to different types of deposits or raised the limits for the amounts covered so as to maintain depositor confidence. Moreover, these governments show that financing requirements largely reflected injection of capital and purchase of assets, with the upfront commitment of such support estimated at 5.0 and 0.2 percent of GDP for the advanced and emerging G20 countries, respectively. Although guarantees, as well as central bank support and liquidity provisions, did not require upfront financing in most cases, they led to a significant build-up of contingent liabilities.

4.2 Utilization of the Support to the Financial Sector

An IMF survey (IMF, 2010) finds that the utilized amounts of financial sector support have been much less than the pledged amounts. Table 1.2 indicates that for advanced G20 economies, the average amount utilized for capital injection was 2.1 percent of GDP, that is, \$653 billion, or just over half the pledged amount. The figures in Table 1.2 indicate that France, Germany, the US and the UK accounted for over 90 percent of this. For the advanced economies, the utilized amount for asset purchases was around 1.4 percent of GDP, less than two-thirds of the pledged amount, while the uptake of guarantees has been markedly less than pledged. The amounts utilized in the G20 emerging market countries have been proportionately lower.

The IMF (2010) identifies several reasons for the generally low amounts utilized. Firstly, they reflect the precautionary nature of initial pledges,

Table 1.2 Financial sector support utilized relative to announcement, by country (in percentage of 2009 GDP unless otherwise noted)

	Capital Injection		Purchase of Assets and Lending by Treasury	
	Amount used	In percentage of Announcement	Amount used	In percentage of Announcement
Advanced Economies				
Canada	0	...	4.4	48.4
France	1.1	83.2	0	0
Germany	1.2	35	3.7	...
Italy	0.3	20.3	0	...
Japan	0.1	2.4	0.1	1.4
Korea	0.4	32.5	0.1	3.8
United Kingdom	6.4	78.5	0.1	4
United States	2.9	57	1.9	84
Emerging Economies				
Brazil	0	...	0.3	43.5
Russia	3.1	43	0	0
G-20 Average	1.3	51.7	0.9	60.2
Advanced Economies	2	52.3	1.4	61
In billions of US\$	639	...	461	...
Emerging Economies	0.3	43	0.03	27.5
In billions of US\$	38.4	...	5	...

Note: The figures in this table are from the IMF staff estimates based on the G20 survey. The table is adapted from the IMF report of 2010.

reflecting the uncertainties prevailing at the time and the need to err on the side of caution so as to increase market confidence. Secondly, the lower levels of utilized amounts reflect more efficient use of government resources, such as using capital injections rather than asset purchases. Thirdly, they also reflect the increasing stability of market conditions and improving bank liquidity following significant ‘lender of last resort’ intervention by central banks. Lastly, in some cases, lags in implementation of programmes for recapitalization and purchase of assets may have played a role, as has perhaps been the case in the Eurozone.

4.3 Net Cost of Support Measures (Instruments) and Recovery of Assets

The IMF (2010) report argues that many of the support arrangements were structured in such a fashion that the financial sector would pay, at least in part, for the cost of the support over time. For instance, recoveries related to the capitalization efforts would reflect repurchases, dividends, and the sale of warrants. Banks paid to participate in asset protection schemes, and were charged sign-up and exit fees. Fees were also received for the provision of guarantees. To boost the deposit insurance funds, monies were sometimes recouped from special levies imposed on the banking sector.

Once the financial markets had stabilized post-March 2009, some recovery of asset prices began.⁶ Figures from the survey responses presented in Table 1.3 suggest that, for advanced G20 economies, recovery was sustained largely through repurchases of shares, fees and interest income, and to a very small extent, the sale of assets. Taking into account these data, the net direct cost of recapitalization and asset purchases is estimated to average 2.8 percent of GDP, equivalent to \$877 billion, and 1.8 percent of GDP for the G20 as a whole. Guarantee measures were used more extensively than in previous crises, while total expenditures in public recapitalization to address the crisis were slightly below historical norms.

Table 1.3 Recovery of outlays and net direct cost of financial sector support (in percentage of 2009 GDP unless otherwise stated)

	Direct Support		Recovery	Net Direct Cost
	Pledged	Utilized		
G-20 Average	4	2.2	0.4	1.8
Advanced Economies	6.2	3.5	0.8	2.8
In billion of US\$	1,976	1,114	237	877
Emerging Economies	0.8	0.3	—	0.3
In billions of US\$	108	43	—	43

Note: The figures in the table are from the IMF staff estimates based on the G20 survey. The table is adapted from the IMF report of 2010.

⁶ The IMF (2010) states that for cross-country consistency, 'recovery' here does not include unrealized gains on assets acquired by the public sector as part of the financial sector support package, but occurs only when these gains are realized as the assets are divested.

The direct net budgetary cost appears to be below historical norms, reflecting extensive use of containment measures, such as widespread central bank intervention utilizing unconventional monetary policy (asset purchases and easy lending to banks) in order to hold interest rates close to the zero lower bound, which reduced the actual cost. Historically, the net cost of guarantees has tended to be much lower than that of capital injections or asset purchases. Moreover, the IMF (2010) argues that general fiscal support to the economy through ‘automatic stabilizers’ and discretionary measures helped stabilize the financial sector and increase the prospects for recovery by limiting the negative feedback loops between the sector and prospects for recovery and also by limiting the negative feedback loops between the financial sector and the real economy. Historically, most countries have had to engage in ‘fiscal consolidation’, or deficit reduction, post crisis and this is the phase that the US and many European countries entered from 2010. The speed of reduction and degree of ‘austerity’ required is a market conditioned political choice, but there is clearly a trade-off between the speed and nature of the fiscal retrenchment and current and future economic growth prospects.

The IMF (2010) report states that for those G20 countries that experienced systemic crisis, the costs are comparable to earlier episodes (5.4 percent versus 8 percent historically). In fact, the broader measures of costs, in terms of the fiscal impact of induced recessions and real economic costs, are estimated to be both significantly higher and broadly similar to past crisis episodes. For instance, Laeven and Valencia (2010) show the average increase in public debt to be about 24 percent of GDP and the output losses to be about 26 percent of potential GDP for those countries, which experienced a systemic banking crisis in 2007–2009. They note that these estimates are not significantly different from historical averages, and argue that this time around policies to address banking solvency were implemented much sooner than in the past, which may have contributed to keeping direct outlays relatively low.

Interestingly, the IMF (2010) notes that total debt burdens have risen dramatically for almost all G20 countries. In addition, uncertainties in the markets continued, in part relating to the high-risk exposures of sovereign balance sheets.

4.4 Addressing the Causes of the Global Financial Crisis

The BIS (2010) report argues that to address the causes of the financial crisis, it is crucial that we draw the correct conclusions from them. Although one might argue that certain activities such as securitization or over-the-counter trading, and certain financial instruments such as

collateralized debt obligations or credit default swaps, should be banned so as to prevent another meltdown, the BIS suggests taking a flexible and forward-looking approach that addresses the externalities that allowed the specific activities to inflict systemic damage.

As discussed in the IMF (2010) report, building a more resilient financial system requires addressing the risks arising from two types of externalities in that system: the micro-prudential externalities stemming from limited liability and asymmetric information (relating to individual institutions), and the macro-prudential externalities relating to systemic risks. The following two sections summarize the major reforms or corrective tools in the form of taxes or regulations required to address those externalities and provide an overview of how they fit together.

4.4.1 Reducing micro-prudential externalities

Micro-prudential externalities are predominantly driven by limited liability and asymmetric information, where limited liability means that bank losses in excess of equity capital are of no direct concern to owners or managers and so, to the extent that risk is not fully priced by creditors at the margin, lead to excessive risk-taking (IMF, 2010). Although corrective tools such as risk-related deposit insurance premiums can help to offset such inefficiency, the superior information of the financial institutions makes appropriate risk adjustment of the charge problematic. Besides, even when the risk is properly priced by creditors, the effects of limited liability can be augmented by explicit or implicit government, or taxpayer, guarantees, which will further reduce market discipline by allowing lower borrowing rates. In such situations, market forces alone cannot correct excessive risk taking and consequent misallocation of resources. Therefore, existing regulations of banks, insurers, and other financial institutions respond to these externalities through a series of capital and liquidity requirements and other micro-prudential regulations, coupled with in-depth supervision and the ability to impose corrective measures.

Moreover, the BIS (2010) argues that the probability that a financial institution will fail can be reduced by using a variety of tools that: (i) affect the size, composition and riskiness of the balance sheet; (ii) improve the governance of the institution and the incentives of its executives; and (iii) enhance market discipline. Jointly, these should reduce risk-taking, increase the ability of institutions to absorb losses and make failure less likely.

Keeping the first goal in mind, the Basel Committee on Banking Supervision (BCBS) has recommended four types of balance sheet measures, all of which should lead banks to hold capital and liquidity that

better reflect their risk exposures.⁷ The first recommendation improves the quantity and quality of capital in banks so that they can better withstand unexpected declines in the values of their assets. The second BCBS balance sheet proposal guards against illiquidity by limiting both the extent of maturity transformation by banks (borrowing short to lend long) and their reliance on wholesale funding. The third proposal improves risk coverage with respect to counterparty credit exposures arising from derivatives, repurchase agreements, securities lending and complex securities activities. The fourth proposal complements complex, risk-weighted capital requirements with a supplementary backstop, a capital leverage ratio. Since leverage amplifies losses as well as profits, it increases the risk of failure in bad times.

Some countries, particularly Switzerland and Ireland, and to some extent the UK, have imposed more stringent capital requirements and leverage ratios on their banks. For instance, in November 2008, Switzerland's banking regulator introduced cyclical capital buffers and liquidity ratios for the two largest Swiss banks. By 2013, the capital requirements to be implemented were 50–100 percent above those set in Pillar 1 of the Basel II standard. Ireland's financial regulator announced in March 2010 that by the end of that year banks in Ireland would be required to hold capital amounting to 8 percent of core Tier 1 capital, and capital of the highest quality (equity) must account for 7 percentage points of that amount. Any further amounts, specific to each institution, are to be added in the calculation of future loan losses. Similarly, authorities in the UK and the US have essentially done the same thing through their stress-testing procedures. The anticipation of such requirements, in combination with investor demands, has already led many institutions to make significant adjustments to their capital base.

The second set of tools aims to reduce the risk of failure for individual institutions by addressing governance and managerial incentives. Many countries have increased their monitoring to ensure better risk management at financial institutions. Several measures create special bank resolution regimes, including living wills. This is done in the anticipation

⁷ The BCBS, in December 2009, published two major papers outlining proposals to strengthen capital and liquidity regulations, including a set of measures to raise the quality, consistency and transparency of the capital base (*Strengthening the resilience of the banking sector and international framework for liquidity risk measurement, standards and monitoring*, Consultative Documents, 17 December 2009). On a similar note, the IASB has proposed a forward-looking approach (International Accounting Standards Board, *Financial instruments: amortised cost and impairment*, Exposure draft ED/2009/12, November, 2009).

that management will be more aware of the risks inside their own firms.⁸ Related attempts, which aim to align compensation structures with prudent risk-taking, will reduce the perverse incentives that drive managers to increase short-term profits without regard to the long-term risks imposed on the firm and the system.⁹

Moreover, the BCBS is preparing frameworks to improve supervisory standards, valuation methods and liquidity requirements. Improved adherence to international supervisory and regulatory standards is most certainly a first step. In January 2010, the FSB published a framework on this topic, currently being implemented, which contains three main elements: leading by example; FSB peer reviews; and promoting global adherence to international financial standards (BCBS, 2010).

The third set of tools aims to increase transparency to enhance market discipline. For instance, the enhancements to the Basel II regulatory framework published by the BCBS in July 2009 addressed weakness in the disclosure of securitization exposure at banks. Other tools include those sought by the International Accounting Standards Board (IASB) and the US Financial Accounting Standards Board (FASB) to increase the international harmonization of accounting standards; implementation of regulations proposed by the International Organization of Securities Commissions (IOSCO) to address the need for stronger standards and oversight for credit rating agencies; and improvements of disclosures more generally.

4.4.2 Reducing macro-prudential externalities

Macro-prudential externalities relate to systemic risk in which the failure or distress of one institution can have domino effects on other institutions or clients, leading to a system-wide failure. Studies such as that of Brunnermeier et al. (2009) argue that key channels for the diffusion of macro-prudential externalities include direct financial exposures, market exposures (when leverage and funding constraints at many institutions lead to fire sales and downward asset price spirals) or reputation exposures (when asymmetric information causes creditors to run from many financial institutions when faced with uncertainty).

⁸ Several countries, including Germany, Switzerland, the United Kingdom and the United States, have proposed or introduced special resolution regimes for large financial firms. Cross-border resolution plans are also being considered.

⁹ The Financial Stability Board (FSB) has presented guidelines for the reform of the regulatory and supervisory framework that addresses these concerns (see *FSB principles for sound compensation practices – implementation standards*, September 2009, based on an April 2009 report issued by the predecessor organization, the Financial Stability Forum). Progress in the implementation of those standards was reviewed by FSB in *Thematic review of compensation* (BIS 80th Annual Report, March, 2010).

In fact, the problem of common exposures is relatively straightforward. By definition, it would mean that a financial landscape dotted with a large number of small yet identical institutions will be just as prone to challenge as a system with a small number of financial behemoths. Therefore, to guard against either type of weakness, the regulators and supervisors have to ensure that not all intermediaries are subject to the same stresses.

In addition, the following factor can further augment financial sector externalities, particularly macro-prudential ones: the presence of large and complex financial institutions (cross-sectional dimension), for which the costs of failure are so severe that financial markets will typically expect governments to support these institutions in order to avoid further adverse effects. This leads to (added) moral hazard in the form of taking on more risks, and shifting risks and costs to the public sector. *Ex ante*, financial markets are distorted, leading to funding advantages for such financial institutions, while bailouts entail fiscal costs. Much of the current policy agenda is consequently aimed at reducing the risks associated with institutions that are TBTF or SIFIs. The inherent procyclicality of the financial system under which, during cyclical upswings, financial institutions build up leverage and risk without having the incentive to consider sufficiently the fallout for the rest of the financial system and the real economy of the adjustment that will become necessary when markets eventually do reverse. In these circumstances, risk is typically under-priced, leading to rapid asset price appreciation and financial institutions taking on additional exposures with a lowering of credit standards. Such booms, in turn, often involve increases in non-core short-term liabilities, including foreign exchange imbalances accumulated through ‘carry-trades’.

Reducing the risks of common exposures and interlinkages or systemic risk What we do not want is a system in which many financial institutions fail at once, either because they have a common exposure to a risk or because a single institution is so large or interconnected that its failure brings on a system-wide one, creating a cascade of insolvencies. The biggest challenge is thus to prevent a single financial institution from creating a cascade of failures. Doing this involves three tasks: (i) reducing the systemic importance of financial institutions; (ii) minimizing spillovers from an institution’s failure by ensuring that the costs of failure will be borne by its unsecured liability holders; and (iii) bringing all systemically relevant financial institutions and activities within the regulatory perimeter and keeping them there (BIS, 2010).

The first task of reducing systemic risks involves preventing a financial institution from becoming so big or so interconnected that its failure could

not be tolerated. The BIS (2010) argues that there are a variety of means that could discourage institutions from contributing to systemic risk; among them are scope constraints and pricing policies.

With regards to scope constraints, policy makers have contemplated rules that would variously limit the extent of financial intermediaries' activities or simply limit the asset size of institutions. For instance, Volcker, in his statement before the Committee on Banking, Housing and Urban Affairs on 2 February 2010, proposed banning deposit taking banks in the United States from engaging in proprietary trading.

With regards to the pricing policies, banks and other institutions could be forced to pay for the privilege of increasing systemic risk that is re-enforced from their implicit insurance. The BIS (2010) proposes a so-called systemic capital charge in the form of capital or liquidity charges, which would compel systemically important institutions to hold relatively more capital and liquidity, thereby reducing the probability of their failure, and the FSB subsequently took this forward. The BIS (2010) report argues that a tax system could, in principle, achieve many of the same objectives, with the same incidence, as a systemic capital charge, but the ultimate complexities of the solution make it unappealing. Alternatively, they propose a 'polluter pays' approach, in which financial institutions are taxed *ex post* for the costs that large failures impose on the public treasury. The issue with this tax is that it provides no effective disincentive to take additional risk and may end up being borne in part by potentially blameless survivors.

The BIS (2010) report argues that reducing or limiting the systemic importance of institutions will help achieve the second task of containing resolution costs and spillovers. Containing the latter can be achieved by making an institution's liability holders bear all the costs of a failure through 'bail-ins' or required 'Co-co' bond issuance (Mullineux, 2013). Better resolution can be achieved if, before any failure occurs, the authorities are able to identify where risk is concentrated in the system and sound and transparent resolution processes ('living wills') are put in place. Resolution processes must include cross-border crisis management and cost of resolution sharing to limit international spillovers from the failure of large, globally active financial institutions. The BIS (2010) report argues that the implementation of measures aimed at coordinating the international supervision of SIFIs, to ensure consistency across national authorities, will allow regulators to terminate crises more promptly.

As far as the market implications are concerned, it needs to be remembered that information asymmetries and uncertainties are at the root of financial panics. In the financial crisis of 2007–2009, contagion was ignited by uncertainty over counterparty-risk exposures – not knowing

who would bear the losses if they occurred. Therefore, transparency and increased disclosure are keys to any solution. Hence, one of the core reforms to market infrastructure is the conceptually simple but technically complex move to establish central counterparties (CCPs) and require that more trading take place on registered exchanges. This has a number of clear benefits and has subsequently been implemented in the EU and the US. Firstly, it improves the management of counterparty risk because the CCP is the counterparty for both sides of any transaction. Secondly, it makes multilateral netting of exposures and payments straightforward. Lastly, it increases transparency by making information on market activity and exposures – both prices and quantities – available to regulators and the public (see Cecchetti et al., 2009, for details).

The third task, the establishment of a comprehensive regulatory perimeter and keeping all systemically relevant financial institutions and activities within it, arises from the lessons learned at a very high cost in the crisis of 2007–2009. Although progress has been made in this area, led by the FSB, as banks have ‘deleveraged’, ‘shadow banking’ has recovered from its post-crisis implosion and is expanding rapidly to fill the space left by the mainstream banking system.

Reducing the risks associated with pro-cyclicality Building a more resilient financial system also involves reducing procyclicality. As an economy expands, banks become flush with funds and capital, borrowers are more creditworthy, and the value of collateral assets (houses and stocks and shares) increases. In such circumstances, lending tends to become easier and cheaper as credit standards are relaxed. However, when the economy is in a post-bubble downturn, these conditions are reversed. Borrowers become less creditworthy, collateral value falls, and banks are forced to absorb unexpected losses, which make them less well capitalized, so they must reduce their asset portfolios and deleverage.

As BIS (2010) explains, financial and monetary policy makers are developing automatic stabilizers that complement discretionary monetary policy to reduce the natural amplification (‘financial accelerator’) effects at work in the financial system. These stabilizers include capital buffers that are calibrated to aggregate levels of credit relative to economic activity so that they rise in booms and fall in busts; forward looking provisioning throughout the cycles; and margin and haircut practices at lenders that are more stable over the business cycle.¹⁰ A variety of

¹⁰ Refer to the BIS (2010) report on the role of margin requirements and haircuts in procyclicality for more details on the recommendations provided and suggestions with regards to the use of margin requirements and haircuts to reduce financial system procyclicality.

countercyclical supervisory instruments, including variation in maximum allowable loan-to-value and loan-to-income ratios, and limits on currency mismatching, are also under development. Table 1.4 details the prudential instruments that directly constrain elements of financial institution activity and Table 1.5 lists the countercyclical prudential instruments in use or proposed in various countries.

Table 1.4 Prudential instruments to directly constrain elements of financial institution activity

	Instrument	Mechanism
Lending Contracts	Caps on LTV ratios for property lending	Limits lender's exposure to property market downturn; limits highly leveraged property investment
	Caps on ratios of debt service to income for household learning	Limits chances of borrower default; limits highly leveraged property investment
Funding Contracts	Countercyclical variation in minimum margins or haircuts on funding contracts (tied to capital requirements)	Discourages under pricing of systemic risks created by secured lending with low haircuts; reduces risk of sharp contraction in the supply of secured funding if risk perceptions of collateral quality are abruptly revised
Financial Institution Balance Sheets	Countercyclical capital surcharge	Builds up countercyclical capital buffers in good times to restrain risk-taking, and runs down the buffers in bad times to allow the financial system to absorb emerging strains more easily
	Adjustments to risk weights	Ensures that capital buffers are sensitive to build-ups of risk in specific sectors
	Statistical provisioning	Reduces risk of under provisioning during booms by anticipating the impairments expected to arise when the economy turns down
	Caps on loan-to-deposit ratio, core funding ratio and other liquidity requirements	Reduces the tendency to rely on short-term or unstable funding markets to support rapid lending growth

Note: The table has been adapted from the BIS (2010) 80th Report.

Table 1.5 Countercyclical prudential instruments in use or proposed

IN USE	
Caps on LTV ratios for property lending	Hong Kong SAR, Korea, Malaysia, Singapore
Caps on ratios of debt service to income for household lending	Hong Kong SAR, Korea
Adjustments to risk weights	India, Turkey
Statistical Provisioning	Spain
Caps on loan-to-deposit ratio, core funding ratios, reserve and other liquidity requirements	Argentina, China, Hong Kong SAR, Korea, New Zealand
PROPOSED	
Countercyclical variation in minimum margins or haircuts on funding contracts (tied to capital requirements)	Proposed by the Committee on the Global Financial System
Countercyclical capital surcharge	Under consideration by the Basel Committee on Banking Supervision

Note: Table has been adapted from the BIS (2010) 80th Report.

5. THE ‘TAXATION’ WORKSTREAM WORKSHOPS

5.1 The Practitioner and Expert Workshop (27 March 2013, Birmingham Business School, University of Birmingham)

The purpose of the first workshop, which was chaired by Andy Mullineux, the workstream leader and a co-investigator on the project, was to seek views from practitioners and experts on the appropriateness of bank taxation in the light of the financial crisis and their relationship with regulatory ‘taxes’ (capital and liquidity requirements) on risk-taking. A number of themes emerged. A Financial Transaction Tax (FTT) is an easy way of enhancing revenue that might be used for bank resolution in case of crisis and to fund supervision, but it distorts markets and is economically inefficient. Removal of the exemption from Value Added Tax (VAT) for financial products and services is desirable, yet exemption is sustained by inertia and opportunism. An easier alternative to VAT is a Financial Activities Tax (FAT), which is a tax on the profits and bonus remuneration of financial institutions. Special bank levies are a good way to raise financial stabilization funding and they also help to offset the debt bias relative to equity financing.

The first speaker was Adam Peacock (Baker and McKenzie, London). He outlined the implications of removing the financial services exemption from VAT. Peacock highlighted the common misconception that banks do not pay this tax. VAT exemption means that banks do not charge it on products and services they sell and so cannot recover the VAT paid on their own costs. VAT is a tax on consumption, collected on the value added at each stage in the supply chain. Exemption from the tax for banks distorts pricing, competition and markets and leads to numerous VAT avoidance schemes seeking to reduce their irrecoverable VAT cost. Many of the alleged operational difficulties with removal of VAT exemption for the financial services no longer apply. Tax systems around the world are more sophisticated and can record transactions at every stage and apply VAT; for example, for interest margin based services, the interest rate spread can be used. Peacock concluded his presentation with a proposal for the application of a flat rate of VAT, like the one that exists in New Zealand. The basis of its calculation can be cash flow taxation. However, this approach is burdensome and costly for smaller firms, as they have to calculate, pay and keep track of taxes and tax credits in different periods. He also suggested a zero business-to-business (B2B) VAT tax and the possible retention of exemption only for supplies or 'basic' products and services (such as money transfers or payments) to consumers. Finally, Peacock advocated an 'option to tax', which is already being utilized in Germany (and there exists an option to tax land and/or building in the UK),¹¹ where firms are allowed to opt into taxation on certain exempt insurance and financial services.

Ian Young (Institute of Chartered Accountants of England and Wales (ICAEW), London) then asked how banks should be taxed in the UK. He described four tenets of a better tax system: fairness, simplicity, certainty and competitiveness. With a view to collecting the VAT, Young drew on 'transfer pricing'¹² and argued that 50 percent of trade is done by groups of companies who can control the profit declared in a way that suits them. He pointed out that the financial sector contributed over 20 percent of corporate tax revenue in the decade to 2008–2009 and that this is double the size of the financial sector in national output. In 2009, the financial

¹¹ In the UK, if you opt to tax land or building, you can recover the VAT incurred on costs, which is generally done if you wish to generate additional income in the form of renting or selling your property out.

¹² Transfer pricing is a profit allocation of a company's taxable profits to different tax jurisdictions in which it operates (<http://www.oecd.org/ctp/transfer-pricing/abouttransferpricing.htm>).

sector represented 10 percent of gross value added (GVA).¹³ Young was of the view that the financial sector is already contributing considerable tax revenue that money should not be disproportionately taken out of this sector and taxation should be used only for the betterment of it. He gave a broader overview of different financial taxes, arguing that in order to resolve the global solidarity dilemma, the best tax is a global currency transaction tax, a targeted FTT, as proposed by Tobin (1958). Other taxes, such as FAT, VAT and a general FTT, have many merits, yet their broader implementation, especially of an FTT, may encourage resources to be allocated to avoidance and create difficulties for central collection.

Next, Arthur Kerrigan (European Commission, Brussels) considered the options for removing the exemption from VAT of financial services in the EU. He argued that it is 'technically' possible to devise a methodology to implement VAT on margin-based financial services, such as bank loans funded by deposits, and there is no technical difficulty at all for fee-based transactions; this could be done in a fair manner by striking a balance between simplicity and detail. However, the current situation is sustained by inertia and opportunism because of the operational difficulties linked with removal of exemption of VAT, and what is missing is an economic debate on their cost. He argued that exemptions are granted in the public interest; however, EU VAT exemptions are the biggest single source of disputes and litigation, and financial services exemption accounts for most of these. The most significant tax banks pay is irrecoverable VAT and there is no way of measuring this accurately because of difficulties in obtaining data. Governments generally do not separate revenue from irrecoverable VAT and there is no required disclosure of this by financial institutions. Kerrigan explained that with the exemption of financial services, revenue accrues where service suppliers are located, rather than where the end user of the supply is located, which can potentially harm a very small economy. Finally, he explained that because financial institutions set their own prices on their products, the problems associated with VAT on margin transactions are frequently exaggerated.

The final speaker was Michael Keen (IMF, Deputy Director, Fiscal Affairs Department, Washington) who considered bank levies and the FAT. He argued that debt bias of taxation is a bigger problem than VAT exemption and it can be resolved by Allowance for Corporate Equity (ACE), at least for banks. The debt bias was to some extent being offset by new taxes on banks, such as bank levies in various countries. The burden associated with government interventions to repair the banking system

¹³ GVA is the value of goods and services produced in an economy minus the costs of inputs used for their production. GVA is equal to GDP minus taxes plus subsidies.

can be compensated with a bank levy and a FAT, which is a tax on GVA, where GVA is the total revenue from final sales, net of subsidies and taxes. Keen explained that *ex post* taxation is not a good punishment or ‘polluter pays’ device, because it tends to tax the survivors of the crisis who may not have been responsible for it. A bank tax should aim to raise revenue, or to correct negative externalities.¹⁴ The externalities can be dealt with by reducing the incentive to take excessive risk, and hence the probability of bank failures and the potential need for bailouts at the taxpayers’ expense. This can be achieved using a nonlinear FAT on wholesale borrowing induced bank leverage. Even though the effects are much smaller for large banks, small changes in the likelihood of large bank failure can potentially have big welfare impacts. Keen supported FAT, along with some alternative to VAT, because of the operational and political difficulties associated with VAT implementation. He explained that there are three categories of FAT, which each tax different kinds of activities. FAT1 is a tax on value added and includes all bankers’ remuneration and defined profits, defined as returns in excess of ‘normal’ (or ‘economic rents’). FAT2 is a tax on managers’ bonuses and on rents to owners and managers. FAT3 discourages risk-taking by taxing ‘excessive’ returns on equity and remuneration, at levels witnessed in the run up to the crisis.

5.2 The ‘Academic’ Workshop (2 October 2013, Birmingham Business School, University of Birmingham)

The second workshop involved academics working in the area of ‘bank taxation’, who were invited in order to seek their views (both theoretical and empirical) on the appropriateness and effectiveness of bank taxation in the light of the financial crisis and its relationship with regulatory taxes (capital and liquidity requirements) on risk taking. A number of different themes emerged: higher corporate income tax encourages banks to take greater risk, suggesting a distortionary impact of taxation through debt bias. Moreover, distortionary effects on securitization were presented, showing that high taxes induce funding constrained banks to securitize more assets, and Allowance for Corporate Equity (ACE) was proposed as a solution to this problem. An FTT is an easy way of enhancing revenue that might be used for resolution in case of crisis and to fund supervision, but it distorts markets and is economically inefficient. However, Gunther Capelle-Blancard gave empirical evidence from French experience that an FTT is neither a panacea, nor a ‘madness’, with damaging impacts on vola-

¹⁴ Negative externality is the cost arising from an economic activity that affects an unrelated party.

tility or even on liquidity. Furthermore, a number of questions were raised about the European Commission's FTT proposal. The impact of FTT on repo markets was also proposed as a means of reducing the opacity of the market and a measure to help mitigate shadow-banking activities. Some suggested alternative taxes to achieve similar objectives, including a FAT, to tax excessive rents in the financial sector and bank levies to fund explicit replacements for the implicit bailout guarantees. However, empirical evidence from the Hungarian Bank Tax shows that the burden of the bank levy was shifted by big banks to clients with the lowest demand elasticity, such as households with outstanding loans. In order to provide a level playing field with the objective of achieving fairness in taxing banks, the removal of exemption from VAT for financial services was also suggested. Finally, Doug Bamford gave views about ethical taxation and highlighted principles of tax morality, problematic facts about and behaviour within finance. Bamford suggested that the solutions to the problems could be achieved by using a progressive tax system that can effectively capture economic rents; through levying higher taxes on risk-taking activities; a FAT; removal of the expensing of interest payments; and by multinational agreements to alter the nature of international ecosystems.

The workshop was chaired by Andy Mullineux. The first paper, presented by Sajid Chaudhry, was entitled: 'Bank Taxation and Regulation'¹⁵. It provided an overview of bank taxation as an alternative to prudential regulations or non-revenue raising taxation. It reviewed existing bank taxation with a view to making proposals to eliminate distortions in the tax system, which had incentivized banks to engage in risky activities. It focused particularly on TBTF and SIFI banks that have been enjoying a competitive advantage over their smaller counterparts. In order to ensure financial stability, the authors put forward the following arguments: a FAT is economically inefficient and potentially costly for the economy and may not protect taxpayers; a bank levy is good for financing bank resolution mechanisms, but it poses the threat of double taxation when combined with the proposed Basel III liquidity and capital ratios; the elimination of exemption from VAT on financial services is desirable in order to provide banks with a level playing field, whilst maintaining the exemption from the 'infrastructural' payments systems, which can be regarded as an essential utility. VAT is expected to improve efficiency because it might stop the wasteful use of financial services. To avoid distortions, VAT should be applied to all (non-payments-related) financial services, including complex ones such as derivatives. It might reduce bank

¹⁵ Andy Mullineux and Natasha Agrawal (Centre for Advanced Research and Learning, Reserve Bank of India) are co-authors of the paper; Agrawal was unable to be present.

lending because of higher costs for customers, but arguably there was over-borrowing in the run-up to the financial crisis.

Gunther Capelle-Blancard (University Paris I – Pantheon Sorbonne, France) next explained that the introduction of an FTT is a highly controversial topic. Nevertheless, different versions of FTT exist in almost 30 countries in the world, including the United Kingdom, Switzerland, Hong Kong, China and Brazil. There is public support for the introduction of an FTT in Europe because it would combat excessive speculation, helps to prevent future crises and force financial institutions to contribute to the costs of a crisis. However, opponents of an FTT argue that it would weaken the competitiveness of the European financial markets and that it is not a feasible tax unless introduced at a global level. Otherwise, it would cause outflows of capital from the EU. The paper reviews the empirical literature and highlights the inconclusiveness of the results, especially on volatility. The authors study the impact of a French FTT, called the Securities Transactions Tax (STT), on the volume, volatility and liquidity of the French Stock Market. The French STT came into force on 1 August, 2012. It is a 0.2 percent tax on financial transactions related to French stocks and it should be paid on the purchase of stocks issued by companies whose headquarters are located in France, with market values of more than €1 billion (on 1 January, 2012). It is collected once a day, so intraday trading is not affected. Their results indicate that the introduction of the STT has reduced the volume and turnover of stocks and increased bid-ask spreads. However, they find no effect on liquidity nor on volatility. They conclude that STT is no significant effect on market volatility nor even on liquidity and so it is more a revenue-raising tax than a corrective (of excessive trading) one.

The third paper was presented by Di Gong (Tilburg University, The Netherlands). Using a sample of OECD banks over the period from 1999 to 2006, it provides evidence of the distortionary effects of taxation on securitization, potentially contributing to undesired financial instability. The paper finds that banks with substantial loan origination capacities, but little deposit market power, are more likely to securitize and they tend to securitize more assets under a higher Corporate Income Tax (CIT) regime. By contrast, CIT does not affect securitization at funding-unconstrained banks. The paper argues that the proposal of levying new taxes on banks may intensify distortions and therefore seems inappropriate. It also argues that a Bank Tax and Financial Activities Tax (FAT) on banks could further distort their incentive to engage in securitization and generate adverse effects on bank portfolios and the securitization market. In particular, to lower financing costs and to satisfy funding demand, banks are induced to securitize more assets than the optimal amount,

contributing to excessive securitization that threatens the safety and soundness of banking.

The next presentation was by Daniella Gabor (University of the West of England, United Kingdom), whose paper explained how the EU's FTT proposals had become increasingly radical, and that some scholars would oppose them and their negative impact on the repo market, because repos are intimately linked to the creation of risk through leveraging and also because repo practices increase systemic interconnectedness in Europe. Gabor highlighted the scope of the proposed EU FTT, which covers all financial markets, instruments and institutions, but does not include lending and deposits, currency trading and primary markets. It also covers shadow-banking activities, including securitization and collateral intermediation (repos and security lending). She stressed that it is more than a tax measure, as it abandons the pre-crisis paradigm of 'the more the better' as regards liquidity and financial intermediation, and addresses the notion that 'virtual liquidity' is equivalent to 'excess liquidity'. Gabor argued that the widespread resistance to the 'repo-FTT' invites a broader reflection on the governance of financial interconnectedness. The national regulator can no longer define clearly whose interests it represents, because it has become ensnared by the need to protect its government's access to international government bond markets. The FTT debates illuminated a symbiotic relationship between governments and repo markets. Governments have little influence over repo practices; the velocity in collateral networks; the home banks' collateral choices; the central bank's liquidity management framework and haircut frameworks. Crises bring these factors into sharp focus, as they did for Greece or Ireland, and prompt governments to contemplate mechanisms for gaining more control. However, governments may quickly backtrack when threatened with a loss of market liquidity.

Gunther Capelle-Blancard presented a second paper, which investigates the incidence of the Hungarian bank tax introduced in 2010. The levy is set at 0.15 percent of the tax base for small credit institutions with assets under EUR 185 million and 0.53 percent of the tax base for large institutions. The tax base is the total assets of credit institutions (commercial and cooperative banks) less interbank assets. The levy on small and large institutions differs, allows to use a 'difference-in-difference' methodology to isolate the impact of the tax from other changes that occur simultaneously. The paper finds that the burden of the bank levy is shifted to clients with the lowest demand elasticity, such as households with outstanding loans. The paper concludes that the introduction of such a tax should be accompanied by measures to increase competition in the banking market in order to inhibit the ability of banks to pass the costs on to customers.

Next, Sailesh Tanna (Coventry University, United Kingdom) reiterated

the consensus view that while tax distortions had not directly caused the financial crisis, they had nevertheless increased the vulnerability of financial systems to crises. Furthermore, Tanna argues that tax distortions lead to a debt bias caused by the deductibility against corporate taxation of interest payments, in contrast to dividend payments on equity. This provides an incentive for firms, including banks, to finance themselves with debt, rather than equity, thus inducing excessive leverage and increasing default rates. The paper demonstrated empirically that higher corporate income tax encourages banks to take greater risk, suggesting a distortionary impact of taxation through debt bias. The impact of taxation on riskiness is also influenced by bank size and regulations, through the significance of interaction effects. The larger banks are more inclined to take on more risk, consistent with the moral hazard associated with TBTF banks. The paper concludes that bank regulatory rules (capital and liquidity requirements) may serve to mitigate the impact of taxation on riskiness, though the effect is not robust.

John Vella (Oxford University, United Kingdom) discussed the European Commission's FTT proposal. He explained that some of the objectives pursued by the proposal are reasonable, whilst others are questionable. Vella also argued that an important weakness of an FTT is that it does not address any of the commonly recognized causes of the crisis (discussed in Section 2 above), such as excessive leverage, or inadequate liquidity coverage. The Commission's proposal is a result of the G20 request to the IMF to prepare a report on the fiscal options through which the financial sector can make a 'fair and substantial contribution' to the repair of the banking system. The IMF (2010) proposed a bank levy and a FAT, as discussed in Section 2 above. Despite this conclusion, some countries, such as France and Germany, have not relented in pushing for the adoption of an FTT at a global level. Another weakness is in the design of the FTT and its susceptibility to avoidance through relocation, hence the push for global adoption. As proposed, every 'natural person' or non-financial institution established in an EU member state which is a party to a transaction with a financial institution established outside the EU would be subject to the tax, which must be paid in the member state in which the natural person or non-financial institution was established. The coverage of this 'residence principle' is thus extensive and it does not eliminate relocation risk. One weakness, which can have substantial impact, is that the big and more established market participants, with subsidiaries in different countries, could avoid this tax by utilizing their subsidiaries, whilst the smaller, less established ones could not do this. Also, the EU FTT is supposed to be paid at each layer of the transaction. For example, if a financial

institution purchases an option to buy equities from another financial institution, they both pay the tax when the option is bought and sold, and again if the option is exercised and the equities are bought and sold. This makes for a heavy tax burden in the case of derivatives because the EU FTT would be charged on the nominal amount involved. Because of these problems, Vella supports the proposal of the IMF and favours a bank levy and a FAT, rather than an FTT, for the EU financial sector.

Finally, Doug Bamford (University of Warwick, United Kingdom) drew upon principles of tax morality and highlighted unfair practices and moral hazards in the financial sector. He observed that bank employees are paid well if things go well and not punished when things go badly, and so there is implicit insurance of financial institutions by taxpayers. Bamford also highlighted problematic, socially useless behaviour involving over-complicated products; misselling of payment protection insurance (PPI); the London Interbank Offer Rate (LIBOR) scandal; and hidden transactions such as that of Barclays' covert capital raising deal with Qatar just after the onset of the financial crisis. Another example of problematic behaviour is the failure to link bank staff remuneration to the long-term goals of firms. Current tax systems favour high earners and debt-based funding. Bamford proposed the introduction of a progressive tax system that can effectively capture economic rents. He also supported higher taxes on risk-taking activities, FAT, the removal of the expensing of interest payments, and multinational agreements to alter the nature of international taxation systems.

Updated versions of some of the papers presented in the two workshops follow to make up the body of the book; others have been, or will be, published elsewhere.

The book concludes with the summary of a panel discussion that took place at the end of the second workshop in October 2013.

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