

Balancing the Regulation and Taxation of Banking*

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Abstract

This study gives an overview of bank taxation as an alternative to prudential regulations or non-revenue taxation. We review existing bank taxation with a view to eliminating distortions in the tax system, which have incentivized banks to engage in risky activities in the past. We focus particularly on ‘too big to be allowed to fail’ banks, which have been enjoying a competitive advantage over their smaller counterparts. We furthermore analyze taxation of financial instruments trading and taxation of banking products and services and their ability to finance resolution mechanisms for banks and to ensure their stability. In this respect, we put forward the following arguments: (1) that a financial transaction tax is economically inefficient and potentially costly for the economy and may not protect taxpayers; (2) that a bank levy is perhaps good for financial stability to finance resolution mechanisms, but that it poses the threat of double taxation, together with the proposed Basel III liquidity ratios; and (3) that we support the elimination of exemption from value added tax (VAT) for financial services in order to provide banks with a level playing field, whilst retaining exemption for basic payments services. This is expected to improve efficiency because it might stop the wasteful use of financial services. To avoid distortions, VAT should be applied to all financial services, including complex ones such as derivatives. VAT might reduce bank lending because of higher costs for customers, but arguably there was over-borrowing prior to the financial crisis.

Keywords: Banks; Taxation; Regulation; Too Big To Fail Banks.

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1 Introduction

After the financial turmoil of 2007, policy makers, academics, and other decision-making institutions and individuals have been discussing the ways to ‘tax’ financial institutions and their activities in the financial markets. There are two predominant ways of taxing banks, with the goal of improving their stability, and with a focus on dissuading them from carrying out risky activities. One way is in the form of regulations by the supervisory authorities and the other is imposing direct ‘fiscal’ taxes. Regulations have traditionally been the dominant way of ensuring the stability of banks. Basel III strengthens the minimum capital requirements required by Basel I and Basel II and introduces new regulatory requirements in the form of bank liquidity ratios and bank leverage. This was done after the advent of the financial turmoil of 2007, in which liquidity and leverage played an aggravating role. Nevertheless, the ‘too big to fail’ problem is still there and has worsened since the period before the financial crisis, especially with the merger of weaker banks with stronger ones. This problem is unlikely to be resolved without untried special resolution regimes. Big banks are implicitly insured by taxpayers and can raise funds more cheaply, giving them a competitive advantage and re-enforcing their dominance. The regulatory responses, with the view of increasing the capital and liquidity requirements for banks, with extra requirements on big ones, may help reduce the burden on taxpayers. However, this may hinder growth by reducing bank lending and may prove to be even costlier. Both at the global level and within the EU, many governments have realized that on the one hand, and in contrast to many other sectors of the economy, allowing individual banks and other systemic financial institutions to fail may 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 the failure of a large bank, those functions could not simply shut down without significant systemic damage. The actions that governments were forced to take to deal with large banking institutions in distress, such as capital injections, guarantees and loans, did manage to stabilize the financial systems, but in so doing, they have propped up failing institutions and supported creditors at huge costs to public finances. The financial crisis has revealed problems with the regulatory approach to addressing externalities arising from excessive bank risk taking and from the ‘too big to fail’ problem. One proposal put forward to solve the issue of ‘too big to fail’ is to separate the investment and commercial banking activities of ‘universal banks’ within bank holding companies and to require them to operate as separately capitalized subsidiaries. In the UK, the Banking Reform Act, which was passed on 18 December 2013, introduced a ‘ring fence’ around retail banking, and thus around the deposits of people and small businesses,

in line with the Independent Commission on Banking (ICB, 2011) and the Parliamentary Commission on Banking Standards (PCBS, 2013) recommendations. The UK's Prudential Regulatory Authority is to consider if a US Volcker-type rule (SEC, 2013), which limits the scope of 'proprietary' trading, and Hedge Fund Business a bank can undertake with the aim of restricting the risk to which bank deposits can be exposed, is appropriate in UK. The EU is still considering the Liikanen Report proposals (EC, 2012) for a more limited separation of retail and investment banking compared to the UK. A less strict separation seems likely given the long tradition of universal banking, particularly in Germany (and Switzerland). The debate about the pros and cons of universal banks and banking, as distinct from 'too big to fail', banks' is ongoing. Calomiris (2013), for example, argues strongly that there are significant economies of scale and scope in banking and also major benefits from the cross border operation and competition of universal banks, whilst acknowledging, however, that size matters and robust internationally agreed resolution regimes need to be implemented as a back stop. Nevertheless, we see some regulatory reforms are moving in the right direction. Keeping in mind the usefulness of regulations to ensure financial stability, we argue that this measure should be augmented by taxation and also that a balance between regulation and taxation should be achieved. We support Adam Smith's argument of fairness and efficiency, in which every entity (person or organization) should be treated equally and that this fairness should not be at the cost of efficiency. We propose this argument in order to balance bank regulation and taxation.

In this paper, we study how banks are regulated and taxed in different countries and analyze how they could be taxed to achieve a balance given the overlaps between regulatory and revenue raising taxes, without hampering financial stability. We furthermore give an overview of taxation of financial instruments trading (Financial Transaction Tax), taxation of financial activities (Financial Activities Tax) and taxation of banking products and services (Value Added Tax). We highlight the ability of these taxes to finance banks' resolution mechanisms, their ability to dissuade banks from carrying out risk activities and their ability to ensure banking and hence overall financial stability because banks constitute the biggest source of external finance in our financial system (Beck *et al.* (2008); Mishkin (2012)). Therefore, banking instability can have devastating impact on overall financial stability as was observed in the global financial crisis that started in 2007. We raise the following arguments: first, we propose elimination of tax deductibility of the 'expensing' of interest on debt, as current business tax rules encourage excessive debt. Tax deductibility of interest expense favours debt over equity, which is in direct opposition to what regulations require; i.e., raising extra equity to make banks safer in case of an exogenous shock. Second, a Financial Transactions Tax (FTT) is economically inefficient because it reduces market

trading volume and liquidity and increases volatility and the cost of capital for firms. It is applied to the gross value at each stage of the settlement chain of a financial transaction, unlike VAT, which is applicable at the end of the chain, and its cumulative effect of charging each agent in a multi-step execution process can be substantial. Furthermore, the FTT may seem like a tax on banks, but it is highly likely that its costs would be passed on to the end investors. Third, we prefer a tax on equities such as that of UK Stamp Duty, which is different from the FTT because it is applicable to the buying and selling of UK-registered shares only once. The EU FTT is applicable to other non-participating member countries and to third countries if they are counterparty to financial transaction trading in an FTT zone jurisdiction. However, since equities are already at a disadvantage because of the preferential treatment of debt owing to tax deductibility of interest on debt, we make the UK Stamp Duty model proposal with caution. Fourth, an FTT is likely to bring the ‘repo market’ to a halt.¹ European finance houses make tens of thousands of repo transactions daily to manage their short-term liquidity, in which securities (usually government bonds) are sold for cash. On 30th May 2013, the overnight gilt repo rate in the UK was 0.445% and the proposed EU FTT on bonds, on both buys and sells, was 0.1%, so there would have been an almost 20% increase in costs for each buying and selling party. The central banks, which act as a lender of last resort, use repo transaction as a key monetary policy instrument. An FTT would not only seriously hit liquidity management for the borrower but also adversely impact the repo rate as a monetary policy instrument. Fifth, we propose the elimination of financial service exemption from VAT. Given the operational difficulties linked to the removal of exemption from VAT, the cash flow method with Tax Collection Account (TCA) proposed by [Poddar and English \(1997\)](#) is recommended. Sixth, the overlap between increasing the bank levy and the proposed Basel III Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) needs to be rectified. Finally, the proposed EU FTT is likely to reduce market liquidity and the proposed Basel III liquidity ratios may also reduce it because they require banks to hold more liquidity on their balance sheets. This will decrease the number of buyers in the market and this situation could cause difficulties when many banks may be seeking to sell their liquid assets following a major event. We propose a cautious approach to the implementation of both the FTT and the Basel III liquidity ratios.

The remainder of the paper is organised as follows: Section 2 makes a comparison between regulations and taxation and section 3 provides an overview of existing taxation and related issues. Section 4 discusses the taxation of financial instruments and section 5 provides the summary and conclusion of the paper.

¹Repo is the sale of securities with an agreement to repurchase them back at an agreed higher price at a later date. The difference between the original price and the higher repurchase price is called the repo rate.

2 Regulations and Taxation

The IMF (2010) proposes the use of taxes and regulations to counteract micro- and macro-prudential risk in the financial system. Although regulations have traditionally been dominant to ensure banking stability, their focus has primarily been on micro-prudential regulation and supervision. The crisis has emphasized the need for a macro prudential framework that can address systemic risks and hence focus on the stability of the financial system. We portray the taxation of banks as a macro-prudential regulation. This idea of using regulatory and other policy measures, including the implementation of taxes and surcharge, is not new and has been pursued by policy makers around the world for some time. For instance, a number of Asian countries have long used restrictions on loan-to-value ratios, capital inflows and other ad hoc measures to limit internal or external vulnerabilities. Over a decade ago, the Bank for International Settlements (BIS) proposed marrying the micro- and macro-prudential dimensions of financial stability in a speech by its general manager (Andrew Crockett) that proved prescient (Crockett, 2000).

Keen (2011) presents an interesting debate over the choice of taxation or regulation as a measure to attain the stability of a financial system. He lists the following factors that can help balance tax and regulatory measures: Income effects, Uncertainty, Asymmetric information, and Institutional issues.

1. Income effects: Taxation strengthens public buffers to address bank failure and crisis, whereas regulation focuses on private buffers. For strongly correlated negative shocks, public buffers provide a useful risk-pooling role and reduce the incidence of bank failures. However, for strongly positively correlated shocks across institutions, the benefit of risk pooling and economy of scale disappears. Taxation is more beneficial in dealing with macro-prudential risks, whereas regulation, while leaving institutions to respond appropriately to systemic crises, may enable a more robust response to macro-prudential concerns.
2. Uncertainty: The comparison between taxation and regulation depends on the shape of private marginal cost (PMC) and marginal external benefit (MEB), as demonstrated by (Weitzman, 1974). If the externalities are small, taxation will dominate (the MEB curve then being horizontal, at zero). However, in the case of a major bank failure, regulation is preferred because the external cost of failure exceeds the private benefits.
3. Asymmetric Information: There is information asymmetry between the policy makers and the management of financial institutions with regard to the riskiness of their financial affairs, as well as the quality of their management. Banks differ in their ability

to manage risk and to set up an optimal policy. In this case, a minimum capital requirement is useful to limit the risk taking ability of banks. However, nonlinear tax, with an increasing marginal rate on bank borrowing, can still be helpful.

4. Institutional Issues: As far as regulations are concerned, there have been some coordinated efforts towards the implementation of regulations at the global level; for example, Basel III. However, there has been little global effort to coordinate the enforcement of taxation. Nevertheless, there have been unilateral taxation innovations in different parts of the world. Recently, the European Parliament has taken an initiative to ask banks to report a breakdown of the taxes they pay in different jurisdictions; it is expected that the same practice will be implemented worldwide.

[de Nicolo *et al.* \(2012\)](#) study the impact of bank regulation and taxation in a dynamic setting, in which banks are exposed to capital and liquidity risk. They find that capital requirements can mitigate banks incentives to take on the excessive risk induced by deposit insurance and limited liability, and can increase efficiency and welfare. By contrast, liquidity requirements significantly reduce lending, efficiency and welfare. If these requirements are too strict, then the benefits of regulation disappear, and the associated efficiency and social costs may be significant. On taxation, corporate income taxes generate higher government revenues and entail lower efficiency and welfare costs than taxes on non-deposit liabilities. [Coulter *et al.* \(2012\)](#) argue that taxation and regulation are fundamentally the same; however, if taxes are paid *ex ante*, unless they are pure capital, the double-edged aspect of taxation arises.

Banks have been subject to regulations in the form of Basel I and Basel II, yet these regulations were not able to prevent banks from taking excessive risk and hence finding themselves on the verge of collapse, forcing governments to either let them fail or bail them out. The present crisis is a testimony to the failure of Basel II. Basel II consisted of three pillars: a minimum capital requirement, a supervisory review and market discipline. One of the major elements of calculation of credit risk is the assessment of risk-weighted assets.² The idea is that some assets are riskier than others and that banks should hold more capital against risk assets. There are two problems attached to this: the calculation of risk weights in this way is backward looking and assumes that securities that have been riskier in the past will continue to be riskier in the future. In addition, it does not adequately assess the risk inherent in different sovereign bonds. For example, lending to ‘triple A’ rated sovereign states carries a risk weight of zero. Because Greece was part of the European Union, the bonds issued by the Greek Government carried the same weight as those issued by their

²Risk weighting of assets is also a core element of Basel III.

German counterpart. The problem with this approach became evident with the onset of the Eurozone crisis in 2010, after which Greek Government bonds were recognized as having higher risk weights than German ones. This led to the crisis in Greece because the value of a one-year bond at the time in Greece was less than the value of a one-year bond in Germany. Further, banks with similar portfolios can use quite different risk weights. The regulations allow big banks with large trading books to use their own internal models to determine the riskiness of their portfolio and to hold capital based on their own models. On the other hand, there are explicit capital requirements for traditional loans. Consequently, bigger banks with large trading books can have proportionately less capital and still report higher capital ratios, compared to smaller banks whose portfolios contain mostly traditional loans. Furthermore, the preferred approach for the calculation of market risk was value-at-risk (VaR).³ Taleb (2010) makes a valid point about the ignorance of 1% distribution, where most of the interesting events happen. Joe Nocera, in his article on risk management in The New York Times in 2009 (2 January 2009:p.7), explains that the whole value-at-risk structure gives banks incentives to push risk into the ‘tails’ of the statistical distribution, which essentially fattens them, significantly increasing bank risk. Therefore, it is important from the risk management point of view that we know the ‘tail risks’ of banks. One other measure called ‘expected shortfall’ gives better incentives to trades. Whilst VaR aims to demonstrate “how bad things can get”, expected shortfall asks: “if things go bad, what is the expected loss?” (Hull, 2012).⁴

Basel III requires banks to increase their capital reserve requirement in order to protect the banking system when there is an adverse shock. Such reserves help address the moral hazard problem created by deposit insurance and also help reduce the information asymmetry problems between the bank management and depositors. Without a minimum capital requirement, banks might maintain socially sub-optimal capital.

Cosimano and Hakura (2011) argue that a lower debt-to-equity ratio will increase the borrowing costs of banks. They show that a 1.3% increase in the required equity-to-debt ratio will increase loan rates by 16 basis points. However, this contrasts with the Modigliani and Miller (1958) theory, which concludes that an increase in equity is offset by a reduction in the cost of debt due to the lower risk of bankruptcy.

³Value-at-risk (VaR) is a statistical model that gives the probability of certainty (X%) that more than a certain amount of dollars will not be lost in the next N days. For example, if we have \$10 million of daily VaR with a 99% confidence interval, it means that we are 99% confident that we will not lose more than \$10 million today.

⁴Expected shortfall is the expected loss in an N-day given that the loss exceeds the Xth percentile of the loss distribution.

Cosimano and Hakura (2011) also highlight the asymmetric effects of an increase in the equity-to-asset ratio for countries experiencing a crisis and those that are not. They show that the effect is much higher for countries not in crisis; for example, a 1.3% increase in the equity-to-asset ratio results in a 14.8% reduction in loans for these countries, compared to a reduction of 4.6% for those not in crisis. There is no incentive for the latter countries to increase their equity-to-debt ratio and the success of Basel III can be at stake in such a situation. Furthermore, as highlighted by Mullineux (2012), the increased emphasis on core equity will put the small saving banks at a disadvantage because they cannot issue equity. However, this can be regarded as a reduction in the idiosyncratic risk of less sophisticated banks. Nonetheless, Zhou (2010) argues that the diversification of idiosyncratic risk increases systemic risk. While Basel III requires higher capital requirements, AAA to A-rated sovereign exposures still carry a zero risk-weight. Furthermore, the risk weighting of mortgage assets, which are considered to have been the primary cause of the global financial crisis of 2007-08, is still based on the internal ratings of banks. de Mooij *et al.* (2013) show that higher aggregate bank leverage is associated with a significantly greater chance of crisis. One of the issues, which the Parliamentary Commission on Banking Standards (PCBS, 2013) highlights in its 2013 report, is that the Basel III proposed leverage ratio of 3% is too low, and that it should be substantially higher than this level.⁵ Sir Mervyn King, Governor of the Bank of England, supported a leverage ratio of 10 to 20% and Andy Haldane (Director of Financial Stability of the Bank of England) stated that a 4% leverage ratio would be much too low to prevent some banks from failing.⁶ Meanwhile, Admati and Hellwing (2013) favour an equity ratio of 30% or more and argue that it will not reduce the lending capacity of banks; rather, this will increase because banks will become less risky and be able to raise equity more cheaply from the capital market. One other important aspect concerning the leverage ratio is that because it is implemented on a gross and non-weighted basis, it would encourage banks to increase their exposure to high-risk, high-return lending and would thus potentially increase their risk exposures and lending to SMEs, inter alia, helping to overcome the credit crunch perhaps. The parallel Basel risk-weighted capital adequacy requirements would limit this tendency, however.

While micro-prudential supervision focuses on individual institutions, macro-prudential supervision aims to mitigate risks to the financial system as a whole ('systemic risks'). The Bank of England (2009) highlighted that macro-prudential policy was missing in the prevailing policy framework and the gap between macro-prudential policy and micro-prudential

⁵Note that there is a difference between leverage ratio and RWA (Risk Weighted Assets) capital ratios. Leverage ratio is the ratio of tier 1 capital to average total assets, whereas RWA tier 1 capital ratio is the tier 1 capital divided by the risk weighted assets. RWA are the assets weighted according to their risk.

⁶PCBS (2013) report entitled "Changing Banking for Good".

supervision had widened over the previous decade. After the advent of the 2007 financial crisis, improved measures to ‘tax’ banks have been devised to measure the macro-economic impact of the financial institutions. These include: Conditional Value-at-Risk (CoVaR), by [Adrian and Brunnermeier \(2008\)](#); Systemic Expected Shortfall (SES), by [Acharya *et al.* \(2010\)](#), proposing a tax on the default risk of a bank; and the Market-based tax by [Hart and Zingales \(2009\)](#), proposing a bank tax on the value of credit default swap contracts.

Macro-prudential supervision focuses on reducing asset price inflation, and thus the need to insure against bank failure; it hence protects taxpayers from the need for bail-outs. Additional macro-prudential tools have been proposed to counter the procyclicality of the banking system and risk-related capital adequacy and backward looking provisioning against bad and doubtful debts. Examples of these are a cap on loan-to-value and debt-to-income ratios, countercyclical capital and liquidity requirements, and non-risk related capital (‘leverage’) ratios; a levy on the outstanding debt multiplied with a factor of average time-to-maturity of a bank; and a levy on non-core liabilities ([Perotti and Suarez \(2009\)](#); [Shin \(2011\)](#); [Hanson *et al.* \(2011\)](#)). Other tools include pre-funded deposit insurance and resolution. These instruments are largely untried and untested as yet, although the US Federal Deposit Insurance Fund, which collects risk-related insurance premia from banks and serves as a resolution fund for banks that are not too big to fail, and may it be politically difficult to limit access to mortgage finance through loan-to-value or loan-to-income ratios in practice.

The Eurozone countries reached an agreement on 18 December 2013 to form a ‘Banking Union’ that will supervise and manage the resolution of the banks in Eurozone member countries. A Banking Union has three pillars: a ‘common banking supervisor’, a ‘Single Resolution Mechanism (SRM)’ and a ‘common deposit guarantee’. It is a step toward uniform bank supervision, to be coordinated and overseen by the European Central Bank (ECB). There is a proposal to use a bank levy to build up, over a number of years, a Bank Recovery and Resolution Fund. The aim is to protect taxpayers from having to bail out banks. To achieve this, however, a very large, potentially normally idle, fund would be required. In the US the FDIC is underwritten by the Treasury and cannot afford to resolve the problems of large banks. We propose that the UK use its Bank Levy to establish pre-funded deposit guarantee and resolution funds to make the recently enacted ‘depositor preference’, or debt seniority over all bond holders, a reality. The UK Banking Reform Act and EU Banking Union agreement enact depositor preference, and provide for ‘bail-ins’ of junior and senior bondholders in accordance with credit standings; this means that the bondholders have to share losses in accordance with their credit seniority once shareholders have taken their losses before government assistance to rescue banks is provided. [Mullineux \(2013\)](#) considers options for protecting taxpayers, but notes that financial stability is a public good and

hence some taxpayer contribution to its provision might be expected, given the potentially high opportunity cost of maintaining very large, normally idle, deposit guarantee and bank resolution funds. These insurance funds can be smaller if the size (and perhaps complexity) of the insured banks, or banking subsidiaries, is reduced. Alongside the re-regulation, interest in financial sector taxation is increasing. The European Commissions report (EC, 2010) on financial sector taxation puts forward three arguments in favour of the use of taxation. They consider taxation, in addition to regulations, to be a corrective measure to reduce the risk taking activities by the financial sector. Secondly, it is a source of revenue through which banks, underpinned by taxpayers, can make a fair contribution to public finances, and thirdly, it is also a source of funding for the resolution of failed banks. However, studies such as those of Shaviro (2011) and Ceriani *et al.* (2011) have argued that taxes have the potential to exacerbate behaviours that may have contributed to the crisis. For instance, tax rules encouraging excessive debt, complex financial transactions, poorly designed incentive compensation for corporate managers and highly leveraged home-ownership may have all contributed to the crisis. Therefore, even though taxes have not been among the primary causes of the crisis, they may have aggravated it. Because firms can deduct interest expenses from their payable taxes, this gives a tax advantage to debt finance. This is termed as ‘debt bias’ in the public finance literature (Auerbach and Gordon, 2002). There is a view that high leverage of banks might have worsened the crisis, but not caused it. Gu *et al.* (2012), among others, describe the choice of subsidiaries by multinationals based on the tax structure in different countries.⁷ Multinationals go for debt finance for their subsidiaries in high tax countries because of interest tax deductibility, whereas they go for equity finance in low tax countries because of the low tax on operating income. It may not be illegal to be involved in such a practice, but it definitely reveals the urge of multinationals to earn profits by taking advantage of the taxation system.

Ceriani *et al.* (2011) consider the taxation of residential buildings and the deductibility of mortgage interest, the taxation of stock options and other performance-based remuneration, and the interaction between securitization and the tax system. They argue that three kinds of taxation contributed to the global financial crisis. Many commentators have argued that the housing policies pursued in the US over the fifteen years prior to the crisis were partly to blame for it, particularly the repeal of capital gains taxation on home selling through the 1997 Tax Relief Act. In the US there is evidence of preferential tax treatment on the employers side, which may have contributed to the success of stock-based remuneration plans. Stock

⁷Hines and Jr. (1990) and Mills and Newberry (2004) find that multinationals do take into consideration tax differences when deciding about their subsidiaries’ capital structure. In Europe, Huizinga *et al.* (2008) and Egger *et al.* (2010) report similar results.

options, nevertheless, force managers to go for short-term profits instead of having a long-term focus. Furthermore, [Ceriani *et al.* \(2011\)](#) argue that securitization creates opportunities for tax arbitrage and reduces the total tax paid by the originator, the special purpose vehicle (SPV) and the final investor. Because of tax differences in different countries, the SPV may be a tax-free vehicle under foreign law. The SPV offsets incomes that are otherwise taxed at a different rate by pooling interest incomes, capital gains and losses. It also defers the tax until the SPV distributes incomes on the securities it has issued or profits are realized. This leads us to evaluate the existing taxes and related issues, which are discussed at length in the following section.

3 An Overview of Existing Taxation and Related Issues

Next, we undertake a comprehensive overview of the existing tax regimes applied to the financial sector. Following the [EC \(2011\)](#), we analyze four different tax areas: Corporate Income Tax, Labour Taxation, Value-Added Tax and the taxation of financial instruments. Bank levies or bank tax are also analyzed.

3.1 Corporate Income Tax

There are two main differences between financial and non-financial corporations. These concern the treatment of bad and doubtful loans and the non-application of thin capitalization rules to the financial sector. As far as bad and doubtful loans are concerned, the differential treatment may provide a cash-flow (liquidity) advantage, but not a tax advantage. These differences in treatment can be attributed to the structure of the business in the financial sector, for which interest received and paid constitute part of the business and not just the financing activities. Before the crisis of 2007-2009, the financial sector accounted for a substantial share of corporate tax receipts. The values for the EU27 are similar to those for many non-EU G20 countries: about one quarter in Canada, Italy and Turkey and about a fifth in Australia, France, the UK and US. Given the weight and the above-average profitability of this sector in general, this should not come as a surprise.

3.2 Specific Anti-Avoidance Rules or Debt Bias

In order to reduce the tax due, companies utilize the applicable tax regime to their advantage. For example, companies can choose to be funded via equity or debt. Debt financing generally

brings additional tax benefits compared to equity financing, considering the fact that interest expenses are generally tax-deductible (whereas dividends are distributed after tax and hence are not deductible). Therefore, by means of high debt financing, the tax base may be eroded through interest expenses.

[de Mooij *et al.* \(2013\)](#) show that debt bias is associated with higher bank leverage, which in turn is associated with crisis. [PCBS \(2013\)](#) explains that the tax system provides a disincentive for banks to hold capital in its highest quality form of equity; rather, it encourages the holding of capital in hybrid, debt related, instruments. Although hybrid instruments can be part of a banks overall capital, they are less loss absorbent than pure equity. The [IMF \(2010\)](#) argues that debt financing could in principle be offset by taxes at a personal level - relatively light taxation of capital gains favours equity, for instance. However, in reality, the importance of tax-exempt and non-resident investors, the prevalence of avoidance schemes focused on creating interest deductions, and the common discourse of market participants suggest that debt is often strongly tax-favoured. In fact, [Weichenrieder and Klautke \(2008\)](#) show that debt biasness leads to noticeably higher leverage for non-financial companies. Moreover, the proliferation prior to the crisis of hybrid instruments such as Trust Preferred Securities ([Engel *et al.*, 1999](#)) benefiting from interest rate ‘deductibility’ or expensing, yet allowable (subject to limits prescribed by Basel) as regulatory capital, strongly suggests tax incentives at work that conflict with regulatory intentions.

3.2.1 Thin Capitalization Rules

To limit risk in the case of excessive debt financing (solvency risk for creditors) and so minimize the adverse tax consequences of excessive interest deductions, several countries have set up ‘thin capitalization rules’ or rules ‘limiting interest deductions’. These rules deny interest deduction once debt ratios or interest payment exceeds some threshold. In other words, thin capitalization rules determine how much of the interest paid on corporate debt is deductible for tax purposes, thus limiting the amount of interest deduction when a certain debt-equity ratio is exceeded. In certain countries, for example in the Netherlands, rules also provide for a limitation of interest expenses, for instance when they exceed interest income. Countries where the thin capitalization rules apply may be divided into three categories:

1. Countries such as Austria, Germany, Lithuania, the Netherlands, Poland, Portugal, and the USA in which thin capitalization rules apply in the same way to the banking sector as to other sectors.
2. Countries such as Czech Republic, Hungary, Switzerland, the UK, and China in which the thin capitalization rules apply to banks, but in a different way. The difference could

be for various reasons. For instance, it may be in the applicable debt-to-equity ratio. For example, in China and Czech Republic, the debt-to-equity ratio applicable to banks is higher. Alternatively, the difference may also be present in the borrowings, which have to be taken into account to compute the debt-to-equity ratio. For instance, in Hungary banks do not have take into account their liabilities in connection with their financial services activities, and in the UK a group's external borrowings are not taken into account to determine the debt cap restriction. The EC (2011) report states that these differences are due to the nature of the activities of a bank.

3. Countries such as Bulgaria, Denmark, France, Greece, Latvia, Romania, Slovenia, and Spain in which banks are excluded from the thin capitalization rules. In Germany, thin capitalization rules are similar for banks and companies in other sectors. In practice, however, due to the fact that interest expenses are always deductible to the extent they do not exceed interest income earned, banks will not be burdened by the thin capitalization rules in this country.

3.2.2 A Comprehensive Business Income Tax (CBIT)

The IMF (2010) proposes a CBIT, which would deny interest deductibility for CIT altogether. Similarly, it would exempt interest received (to avoid multiple taxation within the corporate sector). Although CBIT would also result in financial institutions paying little or no CIT (having no tax due on interest received, but non-interest deductible costs), in aggregate this might be more than offset by increased payments by other companies. The transitional problems in moving to a CBIT would be significant, especially when debt is issued in full expectation of deductibility.

3.2.3 An Allowance for Corporate Equity (ACE)

Certain countries may also apply positive incentive rules from a tax perspective to encourage companies to increase equity funding. Under an ACE scheme, companies would retain interest deductibility but also provide a deduction for a notional return on equity. For instance, Brazil has had a CIT with these features for many years. Austria, Croatia and Italy have all had CITs with an element of an ACE. Belgium has recently introduced a notional interest deduction regime, which mainly consists of a tax deduction corresponding to a notional interest cost computed on adjusted equity capital. This regime was introduced with the aim to (re-) equilibrate the tax treatment of equity funded and debt funded companies. Several studies, such as those of [Staderini \(2001\)](#), [Princen \(2010\)](#) and [Klemm \(2007\)](#), have

reviewed the wider experience with ACE and provided evidence that such schemes have indeed reduced debt financing.⁸

Although the adoption of an ACE would mean a revenue loss, the [IMF \(2010\)](#) argues that transitional provisions can limit this. Moreover, the gain would also be less for financial firms than others, since they tend to be much more highly geared. The use of ACE can further be limited by applying the same notional return (which strong arguments suggest should approximate some risk-free return) to equity as well as debt. This would have the further advantage of eliminating any distinction between debt and equity for tax purposes. [de Mooij et al. \(2013\)](#) also support an allowance for corporate equity, by providing a deduction for the normal return to equity to eliminate the debt bias.

3.2.4 Other Anti-Avoidance Rules

Not all countries have anti-avoidance rules. It should be noted that those where domestic legislation does set down such rules, these generally apply to all companies, and thus not specifically or solely to banks. In this regard, only the US has reported certain specific anti-avoidance rules applying to the Financial Sector, and thus to banks (many relate to profit off-shoring). The case law of the Court of Justice of the European Union has set stringent regulations for the application of these rules.

To summarize, very few countries have enacted specific tax rules to limit interest deductions by banks, probably because of the fact that accepting deposits from customers (and granting loans), coupled with the payment of interest on those deposits, is the core activity of the banking sector. Therefore, there is little tax incentive attached to the deduction of interest payments, as they are more a business characteristic inherent in the financial sector, especially banks.

Moreover, the [EC \(2010\)](#) report states that at least one country also explicitly referred to applicable capital requirements from a regulatory perspective, under which banks' funding should be sufficiently regulated in principle and hence no further corrective measures (from a tax perspective) need to be undertaken in this respect. Such regulatory provisions (such as Basel I, Basel II and the EU Capital Requirements Directive reflecting Basel II) are intended to create an international standard that banking regulators can use to determine the capital/resources banks need to have to protect them against the financial and operational risks they face.

Lastly, the application of the above reforms to financial institutions might seem tempting. However, they would create tax arbitrage opportunities. For instance, providing ACE treatment only for financial firms would require anti-avoidance rules to prevent non-financial

⁸An overview of the design issues of ACE can be found in [OECD \(2007\)](#) and [IMF \(2009\)](#).

business being conducted by them. Moreover, changes to personal taxation may also be needed along with these reforms. Therefore, although these reforms would be difficult, the payoff from reducing the fundamental bias to excess leverage could be substantial.

3.3 Labour Taxation

There are generally no differences in the treatment of the personal income of workers employed in the financial sector, except for the introduction of a special bonus tax (albeit temporary for some EU member states) on financial sector employees. A special enhanced tax on bonuses would lead to higher tax rates than personal income taxation alone. In a limited number of countries, stock options and bonuses benefit from a favourable tax treatment, but this treatment is available across all sectors.

Using a novel database of executive directors for the period 2002-2007 for both EU and non-EU countries, [Egger *et al.* \(2012\)](#) show that there is a significant earnings premium in the financial sector, which for the overall sample available (including both EU and non-EU countries) amounts to about 40% after conditioning out observable director-specific and firm-specific characteristics. Nevertheless, considerable heterogeneity of earnings across different types of businesses within the financial sector exists. In fact, one should expect that compensation levels differ sharply between more conservative commercial banks and riskier investment companies. Using the conservative commercial banks as a reference point, they show that individuals in the real estate sector, the insurance sector and a number of other financial businesses earn significantly higher compensation. This finding holds true for the whole sample, as well as for the EU one.

For the US, [Philippon and Reshef \(2009\)](#) use detailed data on wages in the country's financial sector between 1930 and 2006 to identify the existence of economic rents in the sector, which can explain the wage differential of 30 to 50%. They provide evidence that these wages reached excessively high levels, especially around 1930 and between 1995 and 2006. On one hand, their results suggest that complex corporate activities such as Initial Public Offerings (IPO) or credit risk have a positive effect on the demand for skilled workers, whereas on the other hand, stricter regulation has a negative effect on the demand for skilled workers.

4 Taxation of Financial Instruments

The [IMF \(2010\)](#) argues that there may be reasons to consider additional tax measures beyond a levy. This is because the large fiscal, economic, and social costs of financial

crises may suggest a contribution of the financial sector to general revenues beyond covering the fiscal costs of direct support. Moreover, taxes might have a role in correcting adverse externalities arising from the financial sector, such as the creation of systemic risks and excessive risk taking. Specifically, proposals include taxes on short-term and/or foreign exchange borrowing; on high rates of return (to offset any tendency for decision takers to attach too little weight to downside outcomes); and for corrective taxes related to the notions of systemic risks and interconnectedness. The underlying belief or assumption is that receipts from these taxes would go to general revenue, although they need not equal the damage however defined that they seek to limit or avert.⁹ Needless to mention, explicitly corrective taxes (on systemic risk, for instance) would need to be considered in close coordination with regulatory changes (such as additional capital requirements for systemically important institutions).

The remainder of this section focuses on two possible instruments directed primarily to revenue-raising, although in each case their behavioural, and hence potentially corrective, impact cannot be ignored.¹⁰

4.1 Financial Transactions Tax (FTT)

From the beginning of the financial crisis, the design and implementation of an FTT has received much attention from various circles of society, including the ‘occupy’ protesters, policy makers and academics. According to the [EC \(2010\)](#) report, the financial sector might be too large and take excessive risks because of actual or expected state support. As a result, the financial market is very volatile and this creates negative external effects for the rest of the economy. The Commission argues that an FTT might be used as a corrective tool for the existence of this moral hazard, thereby enhancing the potential efficiency and stability of financial markets.

The [IMF \(2010\)](#) argues that suggestions for some form of FTT differ, including its goals and degrees of detail. For instance, one particular form is a ‘Tobin tax’ on foreign exchange transactions. This would be an internationally uniform tax on all spot conversions of one currency into another, proportional to the size of the transaction. The underlying presumption is that the tax would in particular deter short-term financial ‘round trip’ currency conversions. Tobin (1958) proposes that each government would administrate the tax over its own jurisdiction and the tax revenues could be paid to the IMF or World Bank. Although he

⁹The reason is that corrective taxes need to address the marginal social damage from some activity, which may differ from the average damage.

¹⁰The [EC \(2010\)](#) reports other possibilities, including for instance a surcharge on the rate of corporate income tax applied to financial institutions.

recognizes that “ingenious patterns of evasion” would occur as a result of the tax, he argues that the benefit would outweigh the costs. He postulates that the disadvantages are small compared to the macroeconomic costs of the current system (inefficient national monetary policies at that time).

Tobin’s proposal on exchange rates and the efficiency of monetary policies remains very informative for today’s debate on a general FTT. As the [IMF \(2010\)](#) states, the common feature focused on here is the applicability of the tax to a very wide range of transactions. More specifically, FTT would be applied to all financial transactions and particularly to those carried out in organized markets ([Schamp, 2011](#)). The [EC \(2010\)](#) states that it would be levied each time the underlying asset is traded at a relatively low statutory rate. Advocates of FTT argue that its implementation could raise substantial amounts: it has been estimated that a tax of one basis point would raise over \$200 billion annually if levied globally on stocks, bonds and derivative transactions, and a 0.5 basis point Tobin tax on spot and derivative transactions in the four major trading currencies would raise \$20-\$40 billion [IMF \(2010\)](#). Moreover, [Schulmeister et al. \(2008\)](#) estimate that the revenue of a global FTT would amount to 1.52% of world GDP at a tax rate of 0.1%. On the other hand, it is estimated that in Europe tax revenues would be 2.1% of GDP if a similar tax were imposed.¹¹

Nevertheless, FTT should not be dismissed on the grounds of administrative practicality. In fact, as the [IMF \(2010\)](#) notes, most G20 countries already tax some financial transactions. For instance, Argentina, which has the broadest coverage, taxes payments into and from current accounts, and in Turkey, all the receipts of banks and insurance companies are taxed. Other countries charge particular financial transactions, such as the 0.5% stamp duty on locally registered shares in the United Kingdom. As experience with UK stamp duty shows, collecting taxes on a wide range of exchange-traded securities (and, possibly, derivatives) could be straightforward and cheap if levied through central clearing mechanisms. Of course, to implement transaction taxes more generally, the widespread use of several clearance and settlement systems is certainly helpful. Nevertheless, some important practical issues have not yet been fully resolved. For instance, the question as to whether such a tax might drive transactions into less secure channels remains unanswered. However, implementation difficulties are not unique to the FTT, and a sufficient basis exists for practical implementation of at least some form of FTT to focus on the central question of whether

¹¹It should be noted that the revenue potential of financial transaction taxes will inter-alia depend on their impact on trading volumes. For the estimates discussed, a ‘medium transaction-reduction-scenario’ is assumed. In that situation, [Schulmeister \(2011\)](#) assumes that the volume of spot transactions in the stock and bond market would decline by 10% and 5% respectively. Moreover, the reduction in trading volume of exchange-traded derivatives as well as of over-the-counter (OTC) transactions would lie between 60 and 70% ([Schulmeister et al., 2008](#))

such a tax would be desirable in principle.

France and Italy introduced an FTT on 1 August 2012 and 1 March 2013 respectively. The FTT in France is a tax on equity transactions, high frequency trading in equities, and naked exposure in CDS in EU sovereign debt. In Italy, the FTT is broader in scope and taxes equities, equity-like financial instruments and derivatives, as well as high frequency trading. The FTT in France is quite similar to UK stamp duty, apart from the rate of 0.2% (which was 0.1% before February 2013), the exclusion of companies with a market capitalization of less than 1 billion, and the fact that it is applied at the time of settlement, as opposed to the ‘buy side’ transaction in the case of UK stamp duty. Furthermore, the French FTT also taxes high frequency trading in equities and naked exposures CDS exposures in EU sovereign debt.

Current evidence shows that the FTT in France and Italy has reduced volume and liquidity in the market and has increased volatility. The French FTT has also failed to raise the expected revenue due to reduction in the volume of over-the-counter OTC transactions. The EU FTT is broader, in the sense that it taxes cash and derivatives across all asset classes, with the exception of spot foreign exchange. The EU FTT is 0.1% on stock and bond trades and 0.01% on derivatives. It is applicable on any transaction involving one financial institution with its headquarters in the tax area, or trading on behalf of a client based in the tax area. Critics are of the view that such a general tax will stop the repo market because of taxes on both buy and sell legs. Repo has an important role and helps in the clearing of activities, collateralization of payments between banks, and provision of market liquidity for smaller currency areas.

4.1.1 Some advantages and disadvantages of implementing an FTT

¹² **Advantages of an FTT** Proponents of an FTT argue that its implementation has significant revenue potential. However, the actual amount raised greatly depends on the design of the tax. For instance, the level of collection has a major influence on revenue raised [Schamp \(2011\)](#). Therefore, tax collection at the level of the trading markets would target only a small proportion of financial transactions, given the fragmentation of the trading landscape and the growing importance of OTC derivatives (United Nations, 2010). In addition, tax revenue depends on the base and rate of the FTT. Nevertheless, the United Nation’s high-level Advisory Group on Climate Change Financing (AGF) calculated that the amount of revenue is significant, even with a very low tax rate.

Moreover, an FTT is an innovative source of financing ([Schamp, 2011](#)). This means that no money is extracted from other budgets. Therefore, the considerable revenues collected

¹²See [Schamp \(2011\)](#) for more details.

could be used for the achievement of policy goals on a supranational level. For instance, global public goods, such as development aid or climate control, could be financed (Schamp, 2011). Unquestionably, the implementation of an FTT is accompanied by administrative, monitoring and collection costs. However, as discussed previously with regard to the experience in the United Kingdom, if the tax is properly designed, then the administrative costs can be negligible. For instance, in the UK a tax is levied on electronic paperless share transactions, called the Stamp Duty Reserve Tax. In this case, collection is made through the electronic transaction system of the London Stock Exchange and the cost is remarkably low, i.e. 0.2 pence per pound sterling of revenue collected (Schamp, 2011).

In fact, Schamp (2011) argues that the implementation of the FTT is rather simple and that it could be operational quickly. Moreover, the proposed FTT can build on past experiences of transaction taxes and financial infrastructures, which can operate as central points. To conclude, as the UN (2010) states, in this respect “the implementation of an FTT is not a question of feasibility, although strong will is necessary to oppose traditional objectives” (United Nations, 2010:p.6). In fact, during the G20 summit in Toronto, the ministers decided that a global FTT was no longer feasible.

Disadvantages of an FTT. The IMF (2010) argues that an FTT is ‘not the best way to finance a resolution mechanism’ as the volume of transactions is not a good proxy for either the benefits it conveys to particular institutions or the costs they are likely to impose on it. Moreover, it is not focused on the core sources of financial instability, as it would not target any of the key attributes - institution size, interconnectedness, and substitutability - that give rise to systemic risk. However, adjusting the tax rate to reflect such considerations would be possible in principle, but highly complex in practice. The IMF (2010) states that if the aim is to discourage particular types of transactions, this could be done more effectively by taxing or regulating them directly.

Moreover, (Schamp, 2011) notes that if the implementation of an FTT were limited to a few jurisdictions, it would be unlikely to raise the revenue sought. Moreover, avoidance of the trading market subject to the transaction tax would result in a substantial decrease in the tax base. Nevertheless, the United Nations (2010) and Cortez and Vogel (2011) argue that the implementation of an FTT in all major financial centres would be sufficient to prevent avoidance, as liquidity and legal requirements are still decisive factors and in many tax havens transaction costs are much higher compared to industrialized countries. Besides, a global basis is needed to ensure a worldwide playing field for global financial players.

Even if an FTT were implemented, (Schamp, 2011) argues that it is likely that investors would demand a higher minimum rate of return on their investment, given the rise in transaction costs and hence the expectation of a decrease in future profits. Since the cost of

capital for a company is determined by the minimum rate of return demanded by investors, the introduction of an FTT might mean an increase in the cost of capital faced by companies. Therefore, the impact of the FTT on a company's cost of capital will depend positively on the frequency with which its equity securities are traded. For this scenario, [Bond *et al.* \(2004\)](#) find that after stamp duty in the UK was halved in 1986, share price increases depended positively on market turnover. As a consequence of the increased cost of capital, fewer investment projects will be profitable, and hence investment and economic growth in the economy will be hampered ([Schamp, 2011](#)). However, [Cortez and Vogel \(2011\)](#) argue that the increase in the cost of capital could be restricted if the government issued fewer bonds as a result of the additional revenue raised by the FTT. This in turn would increase the demand for non-government securities and consequently increase the rate of return on non-government securities. However, the assumption that government would behave in such a fashion is not certain.

Most importantly, the real burden of an FTT may fall largely on final consumers rather than, as often seems to be supposed, earnings in the financial sector. Although, undoubtedly, some would be borne by the owners and managers of financial institutions, a large part of this burden may well be passed on to the users of financial services (both businesses and individuals) in the form of reduced returns on savings, higher costs of borrowing, and/or increases in final commodity prices.¹³ According to the [IMF \(2010\)](#), this is because the FTT is levied on every transaction; the cumulative, 'cascading' effects of an FTT - a tax charged on values that reflect the payment of tax at earlier stages - can be significant and non-transparent. Moreover, it is not obvious that the incidence would fall mainly on either the better-off or financial sector rents.¹⁴ Therefore, to summarize, since the incidence of an FTT remains unclear, it should not be thought of as a well-targeted way of taxing any rents earned in the financial sector.

Besides, the [IMF \(2010\)](#) argues that care should be taken in assessing the potential efficiency of an FTT in raising revenue as¹⁵:

One of the weaknesses of an FTT is that it taxes transactions between businesses, including indirectly through the impact on the prices of non-financial products. Therefore, the argument that an FTT would cause little distortion because it would be levied at a very low rate on a very broad base is not very persuasive. In fact, a central principle of public fi-

¹³[Schwert and Seguin \(1993\)](#) estimate that a 0.5% securities transaction tax in the U.S. would increase the cost of capital by 10-18 basis points.

¹⁴Although most current proponents of an FTT do not envisage that its base would include current account bank transactions, it is cautionary to recall that while some have advocated this as a relatively progressive form of taxation, such evidence as there is suggests the opposite [Arbeláez *et al.* \(2005\)](#).

¹⁵See [Schmidt \(2007\)](#), [Schulmeister *et al.* \(2008\)](#), and [Spratt \(2006\)](#) for further details.

nance is that if the sole policy objective is to raise revenue, then taxing transactions between businesses (which many financial transactions are) is unwise. Therefore, distorting business decisions may reduce total output, whilst taxing profits from that output directly could raise more taxes. Technically, a tax levied on transactions at one stage ‘cascades’ into prices at all further stages of production. Hence, for instance, most countries have found that VAT which effectively excludes transactions between businesses is a more efficient revenue-raiser than turnover taxes.¹⁶ As far as pure revenue-raising terms are concerned, there are more efficient instruments than an FTT.

Even if the question of whether transactions could, or would, escape the tax if imposed only by a few countries, experience shows that financial transactions seem to be particularly vulnerable to avoidance or evasion. For instance, in the United Kingdom, where a stamp duty on transactions is levied, ‘contracts in differences’ are used to avoid the tax. The ‘contract for difference’ is nothing but a financial product which reallocates the income associated with share of ownership, without changing the ownership itself. However, to mitigate the incentive for engineering, the tax rate could be set lower than the avoidance costs and tax authorities could react precisely by incorporating new financial instruments in the tax base (Schamp, 2011).

Finally, Schamp (2011) notes that national and international legal constraints should be considered. The underlying belief is that the proposed FTT should be collected by the host country of the financial infrastructure on behalf of the international community. Therefore, at the national level parliamentary authorization to collect the tax is necessary and a legal scheme should be designed for collection. Besides, compatibility of the FTT with the European free movement of capital should be assessed.

There is general consensus in the empirical literature on FTT that it distorts market quality via a reduction in market volume and liquidity, an increase in market volatility and the cost of capital for firms (Amihud (1993); Umlauf (1993); Jones and Seguin (1997); Baltagi *et al.* (2006); Bloomfield *et al.* (2009); Pomeranets and Weaver (2011)). The study by Pomeranets and Weaver (2011) examines changes in market quality associated with nine modifications to the New York State Securities Transaction Tax (STT) between 1932 and 1981. They find that the New York FTT increased individual stock volatility, widened bid-ask spreads, increased price impact, and decreased volume on the New York Stock Exchange. There is also the example of an FTT in Sweden in 1984. The country introduced a 1% tax on equity transactions in 1984, which increased to 2% in 1986. The purpose of the tax was

¹⁶In the case of a turnover tax, tax paid on inputs ‘sticks’. However, with VAT, a credit is provided for input tax so as to ensure that, while tax is collected from the seller, it ultimately does not affect businesses’ input prices.

the same as that of the EU FTT: to raise revenue and to improve the efficiency of the market by reducing speculation. [Umlauf \(1993\)](#) studies the impact of these changes on the Swedish market and finds that stock prices and turnover declined after an increase in the rate of FTT to 2% in 1986. Trading volume fell by 30%, and 60% of the 11 most traded shares migrated to London to avoid the tax. In 1989, the scope of the tax was broadened to include bonds, which led to 85% and 98% reductions in bond trading volume and bond derivatives trading volumes respectively. The tax reduced the liquidity of the market but did not reduce the volatility, which shows that it had little impact on speculative trading because higher volatility is generally associated with higher speculative trading.

FTT is likely to adversely affect the repo market. Like other credit markets, there are borrowers and lenders in a repo market. Borrowers could be dealers who need cash to fund positions or who want to manage liquidity. Lenders are often central banks or money market funds. Central banks, who act as a lender of last resort, use the repo market to manage monetary policy. However, money market funds also frequently invest their surplus cash in the repo market in the short term. Unlike traditional forms of secured lending, in a repo transaction the lender has outright legal ownership of the security for a temporary period. Most transactions are conducted overnight, but there is a market for 1 month, 3 month, 6 month and 12 month repos, or even longer terms. For a borrower, this transaction is called a repo, while for the lender it is called a reverse repo. Everyday, tens of thousands of repo transactions are made by European finance houses to manage their short-term liquidity, in which securities (usually government bonds) are sold for cash. As explained above, the proposed EU FTT is likely to adversely impact the repo market because of a substantial increase in the repo rate.

4.2 Financial Activities Tax (FAT)

As an alternative to an FTT, the [IMF \(2010\)](#) proposes the implementation of a FAT levied on the sum of profits and remuneration of financial institutions. It is believed that since value added is simply the sum of profits and wages, a FAT would bear the same relationship to an FTT as VAT does to a turnover tax. A FAT in effect taxes the net transactions of financial institutions, whereas an FTT taxes gross transactions. However, like an FTT, a FAT would, in the absence of special arrangements, tax business transactions because no credit would be given to their customers for a FAT paid by financial institutions. Alternative definitions of profits and remuneration for inclusion in the base of a FAT would enable it to pursue a range of objectives.¹⁷ For instance, with the inclusion of all remuneration, the [IMF \(2010\)](#) argues

¹⁷See Appendix 6 of the [IMF \(2010\)](#) report for elaboration on the design and revenue potential of these alternative forms of FAT.

that a FAT would effectively be a tax on value added, and so would partially offset the risk of the financial sector becoming unduly large because of its favourable treatment under existing VAT arrangements. Moreover, to avoid worsening distortions, the tax rate would need to be below current standard VAT rates (for the reasons discussed above, financial services are commonly VAT-exempt, which means that, purely for tax reasons, the financial sector may be under-taxed and hence perhaps ‘too big’). In fact, the size of the gross financial sector value-added in many countries suggests that even a relatively low-rate FAT could raise significant revenue in a fair and reasonably efficient way. For instance, the [IMF \(2010\)](#) report shows that in the UK, a 5% FAT (with all salaries included in the base) might raise about 0.3% of GDP.

Moreover, the [IMF \(2010\)](#) argues that with the inclusion of profits only above some high threshold rate of return, a FAT would become a tax on ‘excessive’ returns in the financial sector. The underlying belief is that it would mitigate the excessive risk-taking that can arise from the undervaluation by private sector decision-makers of losses in bad outcomes (because they are expected to be borne by others), since it would reduce the after-tax return in good outcomes.¹⁸ It should be noted that there may be more effective (tax and regulatory) ways to do this.

The [IMF \(2010\)](#) also states that the implementation of a FAT should be relatively straightforward, as it would be drawn on the practices of established taxes: taxing profits and withholding on remuneration are everyday functions of almost every tax administration. Of course, there would be technical issues to resolve, but the IMF argues that most are of a kind that tax administrations are used to dealing with. In fact, some jurisdictions already have taxes of this general type. Even though there would be difficulties in the potential shifting of profits and remuneration to low-tax jurisdictions, a low rate FAT might not add greatly to current incentives for tax planning, and as a matter of fact would not greatly change them if adopted at broadly similar rates in a range of countries.

In addition, similar to an FTT, a FAT would tend to reduce the size of the financial sector; however, with less uncertainty as to its impact on the structure of financial markets, effective implementation and, to some extent, incidence. Unlike an FTT, a FAT will fall on intermediate transactions. Therefore its implementation does not directly distort the activities of the financial institutions. Rather, it encourages integration in the sector. In fact, since a FAT is essentially a levy on economic rents, it would tend to reduce the size of the sector without changing its activities.

The [IMF \(2010\)](#) argues that in many respects a FAT has the nature of VAT. This is in the sense that like VAT, there would be no direct impact on the structure of the activities

¹⁸[John et al. \(1991\)](#) develop the argument for progressive profit taxation on these grounds.

undertaken by financial institutions themselves, as liability depends on profit, not on how it is earned or on the volume of turnover. Of course, there would be one difference from VAT, in that the tax would also fall on businesses, not just on final consumers.

[Shaviro \(2012\)](#) also favours a FAT over an FTT because of the broad ‘net’ measure of FAT compared to a narrow ‘gross’ measure of financial sector activity. The Parliamentary Commission on Banking Standards [PCBS \(2013\)](#) report also quotes different parties who prefer a FAT over an FTT for three reasons: it is less easily avoidable through relocations; incidence is more certain; and it would generate the same amount of revenue with less inefficiencies.

4.3 Value Added Tax (VAT)

A VAT is a consumption tax that is collected on the value added at each stage of production. This is different to a retail sales tax (RST), which is charged on sales to final consumers. In order to understand a VAT (or Government Sales Tax, GST) on financial services, it is important to distinguish between the purchase of financial services by businesses and consumers. The literature provides the answer that purchases of financial services by businesses should not be subject to GST, whereas for purchases by consumers the answer is not so clear. [Firth and McKenzie \(2012\)](#) observe that the non-taxation of intermediate financial transactions with businesses can be achieved in two fundamental ways. If GST is levied on the purchase of a financial service, regardless of whether or not the underlying price is explicit or implicit by way of the margin (and ignoring measurement issues with regard to the latter for now; this issue will be discussed below), the business should obtain a full input credit for the GST paid on the service, and the financial institution providing the service should obtain full credit for the GST paid on the inputs purchased to produce the service. If no GST is levied on the transaction, then the GST levied on the inputs used by the financial intermediary to provide the service to businesses should still be fully credited on the part of the financial intermediary; this is, of course, zero-rating.

It is important to note that it is a very common practice to exempt financial services from VAT, meaning that the tax is not charged to the purchaser, but tax paid on related inputs is not recovered. Therefore, in some sense, financial services are ‘input-taxed’. On one hand, the reason behind the implementation of VAT exemption on financial services lies in the conceptual difficulty that arises when payment for service is implicit in a spread (between borrowing and lending rates, for instance): taxing the overall spread may be easy, but proper operation of the VAT requires some way of allocating that tax between the two sides of the transaction so as to ensure that registered businesses receive a credit but final

consumers do not.

While on the other hand, exemption means that business use of financial services tends to be over-taxed, but use by final consumers is under-taxed. This means that the prices charged by the financial institutions are likely to reflect the unrecovered VAT charged on their inputs, so that business users will pay more than they would have in the absence of the VAT. Generally, the credit mechanism of the VAT ensures that it does not affect prices paid by registered users on their purchase. However, exemption means that this is not so, either for financial institutions themselves, or their customers or, through further cascading, the customers of their customers. Of course, this runs counter to the principle underlying the VAT, that transactions between businesses should not be taxed unless doing so addresses some clear market failure. Moreover, exemption for final consumers is likely to mean under-taxation, since the price they pay does not reflect the full value added by financial service providers, but only their use of taxable inputs. Why should there be a low rate of VAT on the use of financial services by financial consumers? Some (Atkinson and Stiglitz (1976); Mirrlees (2011) (Chapter 6)) argue for taxation of financial services at a relatively low rate because of their use of free time for paid work, so that favourable treatment helps counteract the general tendency of taxation to discourage work effort. Since the adoption of the Sixth VAT Directive in 1977 (Article 135 (1) of the VAT Directive), the EUs common value added tax system has generally exempted mainstream financial services, including insurance and investment funds.

The Directive, to some extent, reflects an uncertain approach, in that it allows EU member states the option of taxing financial services. However, the difficulty arises of technically defining the price for specific financial operations. Studies such as those by Kerrigan (2010) and Mirrlees (2011) (Chapter 8) provide a detailed discussion of the problem of VAT on financial services, arguing that around two-thirds of all financial services are margin-based, which makes the implementation of the invoice-credit VAT system very difficult in this respect. Nevertheless, this difficulty seems to be surmountable. For instance, in Germany, where the granting of loans is subject to VAT under the option to tax, an acceptable methodology seems to have been found to tax these margin-based operations.¹⁹ Yet, the extent to which applying VAT to the financial sector (and its clients) would raise additional tax revenues and, consequently, the extent to which the exemption constitutes a tax advantage for the financial sector remains an unsettled empirical question. Known as the ‘irrecoverable VAT problem’, the exemption means that the financial sector does not charge VAT on most of

¹⁹Poddar and English (1997) propose the application of a transaction-based VAT known as the ‘Truncated Cash-Flow Method with Tax Calculation Account’ as another theoretical possibility. Ernst and by European Commission DG TAXUD) (1996) have considered such alternative approaches.

its output, so it cannot deduct the VAT charged on its input. Estimates by [Genser and Winker \(1997\)](#) for Germany (7 billion DM for 1994), [Huizinga \(2002\)](#) for the EU-15 (€12 billion for 1998 or 0.15% of GDP) and the UK Treasury for the UK (£9.05 billion or about 0.6% of GDP) indicate that there might be a sizeable tax advantage (measured as VAT not collected).²⁰ Arguments are also put forth that claim that irrecoverable VAT is the largest tax burden for the sector.

The [EC \(2011\)](#) report presents a new estimate of the magnitude of the problem. The calculations are based on European Sector Accounts on the consumption of financial services by sectors (data restricted to financial intermediation and other tax exempt financial services are not covered). By applying methodologies proposed by [Huizinga \(2002\)](#) and [Lockwood \(2013\)](#), the data are used to estimate the potential advantage from VAT exemption. Although the data are very rough approximations and should be interpreted with caution, the estimates suggest that VAT exemption leads to an advantage in the range of 0.11% to 0.17% of GDP (the results are in line with the results of [Huizinga \(2002\)](#) of around 0.15% of GDP). Nevertheless, the results indicate that the VAT exemption of financial services might be an advantage for the financial sector. The [EC \(2011\)](#) report notes that the results do not change significantly when other estimates for the irrecoverable VAT based on sector account data are used.

It should further be noted that all three estimates do not take into account the behavioural response due to price changes when applying VAT to financial services. Although the inclusion of the financial sector in VAT would indeed lead to price changes, such changes should be seen as the correction to an existing distortion rather than a new distortion. The reason is that next to the question of whether VAT on financial services would raise revenues, there is an economic distortion arising from the current VAT exemption. While services provided to households are too cheap, services to businesses are more expensive, leading to a misallocation of the consumption of financial services.

Moreover, it can be deduced (following [IMF \(2010\)](#)), that the net impact of exemption is likely to be less tax revenue and a larger financial sector. Evidence suggests that revenue would be increased by only taxing the final use of financial services at the standard VAT rate ([Huizinga \(2002\)](#); [Genser and Winker \(1997\)](#)). At the same time, the effect on the size of the sector depends on the relative price sensitivities of business and final use, even though the same evidence creates some presumption that the exemption of many financial services under current VAT results in the financial sector being larger than it would be under a perfectly functioning, single rate VAT.

Other arguments are put forward by different studies; for example, [Grubert and III \(2000\)](#)

²⁰http://www.hmrc.gov.uk/stats/tax_expenditures/table1-5.pdf

argue that financial services are not purchased for their consumption value, but rather to facilitate final consumption and should not be taxed. [Boadway and Keen \(2003\)](#) argue that many goods and services that one would question should be taxed using a GST. They have a similar characteristic because they are a means to an end rather than ends in themselves, and are therefore intermediate transactions. Indeed, virtually every good may be thought of in those terms, in the sense that they are inputs into some notion of well-being or production process, but the idea of VAT is to concentrate on the value added. As per the [Corlett and Hague \(1953\)](#) rule, to minimize the costs of distortions caused by the tax system, goods that are more complementary with the consumption of leisure (which is generally viewed as being non-taxable) should be taxed at higher rates. Since financial services are exempt from VAT, they are implicitly considered equivalent to a necessity, with a view not to pass on the tax burden to the final consumers. In summary, VAT exemption possibly results in the preferential treatment of the financial sector compared with other sectors of the economy, as well as in distortions of prices. Therefore, VAT exemption for a large share of financial services is an important issue.

Nevertheless, the cases of New Zealand and Australia have widely been put forward as a more efficient and a fair model, which seems to avoid some of the potential distortive impacts of the implementation of VAT. New Zealand introduced a uniform GST in 1986 (VAT is called GST in New Zealand) and considered it efficient because of relatively fewer exemptions than in the UK and the EU. [Dickson and White \(2012\)](#) describe the compliance and administrative costs of GST as regressive; however, relief to the poor strata of society is provided via the income tax and social welfare systems. As reported by PWC in their survey in 2006, in New Zealand, although exemption is afforded to many supplies of financial services, these supplies can be zero rated (at the option of the supplier) when made to principally taxable persons.²¹ This guarantees that financial service providers can recover a substantial or significant GST incurred on inputs purchased from third-party suppliers.

In addition, it is interesting to note that in New Zealand GST exemption does not include non-life insurance, provision of advisory services, equipment leasing, creditor protection policies and some other financial intermediation services. However, transactions dealing with money, issuance of securities, provision of credit and loans and provision of life insurance are still exempted ([Poddar and Kalita, 2008](#)). The New Zealand system of taxation of non-life insurance would seem to have been followed in a number of other countries, including South Africa and Australia, and very broadly it taxes gross premiums but gives insurers the ability to reclaim deemed input tax on indemnification of payments, whether or not made to

²¹See GST Guidelines for Working with New Zero Rating Rules for Financial Services, published by the policy advice division of the Inland Revenue Department (New Zealand), October 2004.

GST-registered insured parties.²² In this case, the model uses taxes on insurers' cash flows as a surrogate for value added.

The narrow definition of financial services, in the form of BTB or BTC transactions, has made many of them taxable, which otherwise would have been exempt. The exemption does not apply to brokering and facilitating services; it includes only borrowing and lending. With respect to Australia, the exemption approach to financial services applies in principle so that a denial of input credit entitlement arises for GST incurred on related costs. In spite of this, the distortive impact of the input credit provision is mitigated by what is termed the Reduced Input Tax Credit (RITC) scheme. This scheme, a unique feature of the Australian GST code, allows suppliers of financial services to recover 75% of tax paid on specified inputs. A relative of a RITC was chosen because of the significant proportion of labour costs typically incurred in providing the RITC services. The main objective of the RITC scheme is to eliminate the bias to vertical integration (self-supplying inputs) and to facilitate outsourcing, presumably from a cost efficiency perspective. The inputs that give rise to an RITC are itemized in regulations, but broadly include the following: 1. Transaction banking and cash management services; 2. Payment and fund transfer services; 3. Securities transaction services; 4. Loan services; 5. Debt collection services; 6. Funds management services; 7. Insurance brokerage and claims handling services; 8. Trustee and custodial services; and 9. Suppliers for which financial supply facilitators are paid a commission.

A [PWC \(2006\)](#) report identifies certain advantages and disadvantages associated with the implementation of the RITC mechanisms.

Advantages of the Australian RITC scheme are:

1. It removes the necessity to make supplies to financial institutions VAT exempt. Hence, tax compliance is easier for suppliers to these institutions, which remain fully taxable;
2. It is the recipients' responsibility to determine the RITC rather than placing the burden on the suppliers; and
3. The RITC scheme is compatible with the existing VAT framework (i.e. direct attribution and allocation). For instance, the RITC can apply to supplies used for taxable and exempt purposes. The recipient then works out the extent of taxable use (an apportionment is made) and then applies the reduced input tax credit to the extent of exempt use. To put this in figures, if an entity makes 50% taxable and 50% exempt

²²The Value Added Tax Act, no 89 of 1991, states that various financial services are exempt from VAT, for example long term insurance (sec 2(1)(i) and sec 12(a)). Yet short term insurance and commission received from selling long term and short term insurance are taxable supplies and subject to VAT at 14%.

supplies, then it can claim back 87.5% of the GST incurred by applying RITC (say 75%) to the remaining 50% exempt use [PWC \(2006\)](#).

Disadvantages of the Australian RITC regime are:

1. Clear definitions and guidance are needed to identify when the RITC will apply and to what kinds of goods/services;
2. The Australian RITC mechanism requires unanimous support from all States and Territories before the law can be amended. A similar principle applies in the EU;
3. Before an RITC can be applied, an apportionment is required to overhead expenditure;
4. It is the recipient that makes an apportionment between taxable and exempt use and then applies the RITC, thereby allowing an RITC to manipulate the apportionment in favour of taxable use to maximize input VAT recovery;
5. RITC does not apply to all services that may lead to irrecoverable input VAT. For instance, it may not apply to the recharge of shared service centre costs from a group company (but outside the GST Group);
6. There is no scientific way of determining RITC, as the credit of 75% was chosen after consultation with the industry. Hence, it is difficult to know what the correct RITC should be. In any case, it was agreed that if the service was provided in-house, there should be a GST cost on overheads and some directly attributable costs, and therefore a 100% credit would be inappropriate.

It is worth mentioning that although some of these services may qualify for exemption in their own right under the Sixth EU VAT Directive, the RITC scheme is an interesting concept and may contribute to the elimination of the bias against outsourcing inherent in other systems.

Financial services are also exempt from VAT in the EU and banks do not charge any VAT on their financial services, nor do they not recover VAT paid on their business inputs. However, there are some exceptions of specified fee-based services, such as safety deposit box fees, financial advisory services and the zero rating of exported financial services. The Canadian Goods and Services Tax is generally similar to the European one with regard to exemption of financial services. However, there is a list of fee-based services that are taxed.²³ The GST is a credit-invoice tax rather than a subtraction method tax, which was once proposed in Canada ([Schenk, 2010](#)).

²³GST/HST Memoranda Series, Canada Customs and Revenue Agency, April 2000.

The cases of Israel and Argentina are severe, in the sense that they overtax many financial services. Firstly, financial services are exempt from VAT, meaning that they cannot recover the tax on their purchases and secondly, banks are required to pay tax on the aggregate of their wages and profits (Schenk and Oldman, 2007). In order to contain inflationary pressures, or for that matter to reduce the wasteful use of financial services, Argentina taxes gross interest on loans under a VAT at different rates. The VAT on these loans to registered businesses is creditable (Schenk and Oldman, 2007).

Virtually all fee-based financial services are taxable or zero-rated under VAT in South Africa. However, margin-based services are still exempted. The banks can reclaim input VAT for fee-based services. In Singapore, financial services rendered to taxable customers are zero rated because financial institutions can claim input credits for VAT. For input VAT that is not attributable to taxable supplies or to exempt supplies, a financial service provider must allocate the input tax in proportion to the ratio of taxable supplies to total supplies (Schenk and Oldman, 2007).

4.3.1 Effects of Removing VAT exemption on Financial Services

As noted in the Mirrlees (2011) review, exemption from VAT is against the logic of the tax as it breaks down the chain, leaving financial institutions (or any other institution for that matter) to reclaim the input tax. It is clearly distortionary, as exemption makes VAT a production tax. Perhaps the biggest distortion is that it forces financial institutions to produce most of the inputs in-house and integrate vertically. This thereby reduces input VAT that is not creditable for financial institutions. In addition to the discrimination against outside suppliers, vertical integration could perhaps be the reason why financial institutions take the shape of conglomerates, making them ‘too big to fail’. As financial institutions across the EU face different input costs, exemption creates another distortion, leaving the financial institutions with higher input costs uncompetitive.

Another distortion identified by (Schenk and Oldman, 2007) is that exemption of financial services may encourage financial institutions to outsource, which is discrimination against domestic suppliers. They explain that if a financial institution obtains an exempted service within the EU, the cost may include some disallowed input VAT. However, this is not the case if a service is imported from a country with zero-rating on the export of that service.

One of the problems in taxing financial services identified by Benedict (2011) is the valuation issue. Apart from some technical problems involved in it, one factor that is desirable from the risk management point of view is the transparency of banks earnings. It is generally argued that the tax can be imposed on the interest rate spread and apportioned between transactors (customers of lending and borrowing). This valuation process would result in a

transparency of the margins, not only for the revenue authorities but also for the public at large. This would reduce the information asymmetries, which are considered to have been one of the causes of the crisis.

Mirrlees (2010) review does not clearly distinguish financial services from other major areas (property and PNC) where VAT is not optimal. Nevertheless, it suggests Viable Integrated VAT (VIVAT) as a solution for the UK and the EU. VIVAT proposes that all sales to registered businesses are taxed at a uniform ‘intermediate’ rate of 17.5%. However, Cnossen (2010), commenting on Crawford *et al.* (2010) chapter on VAT in the Mirrlees (2010) Review, argues that VIVAT involves substantial additional administrative complexity and may violate tax autonomy. It leads to a break in the VAT-audit trail, making it difficult to control compliance. Dickson and White (2010), in their commentary, consider a uniform standard rate of 17.5% a step in the right direction. Given the regressive compliance cost of GST, they are of the view, because of basic necessities of life, that the economic position of the poor should be adjusted via income taxation and social welfare provisions, rather than GST exemption.

Broadly speaking, there are two methods of VAT charging: the subtraction method and the credit-invoice method. The subtraction method exists in Japan, whereas most countries (Europe, Australia, New Zealand, Canada etc.) use the credit-invoice method. However, Toder and Rosenberg (2010) explain that the subtraction method in Japan is not very different from the credit-invoice method. Under the subtraction method, VAT is calculated on the difference between the value of sales and the value of purchases. On the other hand, in the credit-invoice method, sales by businesses are taxable. However, they reclaim the tax they have paid on their purchases. The credit-invoice method is preferable over the subtraction method if anyone in the chain is exempted from tax. The credit-invoice method is further divided into the Cash Flow Method, Cash Flow Method with Tax Collection Account and Modified Reverse Charge Approach.

The cash flow method is more popular and the simplest method to tackle the valuation of VAT under credit-invoice tax. Under this method, all cash inflows are treated as sales to customers and all cash outflows are treated as the purchase of inputs. Consequently, financial institutions have to pay tax on all purchases (cash outflows) and charge tax on all sales (cash inflows). Needless to say, financial institutions will reclaim the tax paid on purchases. Although the cash flow method is simple and straightforward to implement, there are two difficulties attached to it, but only for margin based services. These are related to payment of tax at the time of borrowing and transitional adjustments at the beginning of the system and at the time of tax rate change.

Poddar and English (1997) propose a cash flow method with Tax Collection Account

(TCA) to resolve the problems attached to this method. They argue that:

“the TCA is a tax suspense account created to obviate the payment of tax by taxpayers and of credits by government during the period that cash inflows and outflows of a capital nature occur. Tax that would otherwise be payable/creditable is instead debited/credited to the TCA and carried forward to the period during which the capital transaction is reversed. The TCA mechanism thus allows deferral of tax on cash inflows and of tax credits on cash outflows. However, these deferrals are subject to interest charges at the government borrowing rate” (Poddar and English, 1997:p.11)

Zee (2004) proposes a ‘modified reverse-charging’ method to tax financial services under a VAT. This proposal involves:

“the application of a reverse charge that shifts the collection of the VAT on deposit interest from depositors to banks, in conjunction with the establishment of a franking mechanism managed by banks that effectively transfers the VAT so collected to borrowers as credits against the VAT on their loan interest on a transaction-by-transaction basis. The proposal is fully compatible with an invoice-credit VAT and is capable of delivering the correct theoretical result at minimal administrative costs” (Zee, 2004:p.3).

Zee claims that this approach delivers the correct theoretical result but entails minimal administrative costs in terms of either enforcement or compliance. As explained by Kerrigan (2010), both the TCA and the modified reverse-charge methods provide a workable solution. However, the TCA method has been field tested with a panel of financial institutions and has been found workable. Therefore, this method is preferred.

Crawford *et al.* (2010), in Mirrlees (2010) Review, argue that financial institutions would need to distinguish between registered and non-registered buyers and suggest VIVAT as the best solution for the UK and the EU. Keen (2000) also makes the same argument and compares VIVAT with Compensating VAT (CVAT), explaining that CVAT (which requires sellers to discriminate between buyers located in different provinces of a federation) is designed for countries like Brazil and India where there is a significant central federal tax authority.

The removal of exemption on financial services would mean that banks’ 20% (in the case of the UK) tax on financial products and services would be paid by consumers, and banks would be allowed to reclaim VAT on inputs, which would reduce their costs. This is good in the sense that banks would not have to take on risky projects in order to increase their profits, as they would be able to do so even without taking risks. It would also increase revenue for the government. The only affected party in the case of removal of exemption from VAT would be the consumers. They would have to pay an extra 20% for the use of financial services. It might, however, also improve efficiency because consumers would stop

excessive use of financial services and use them only when needed. However, zero rating of financial services increases the burden on the exchequer, while only benefiting the banks. This policy does not seem to be beneficial given the crisis situation. Currently in New Zealand there is zero-rating of financial services (excluding issuance of securities, provision of credit and loans etc.) supplies to businesses and a reverse charge to imported business services. This helps remove the distortions that arise due to exemption and the fiscal cost of zero-rating is partially offset by the reverse charge.

It is important to segregate financial services into fee-based services and margin-based services when removing VAT exemption on them. Fee-based services can be categorized as a luxury, with margin-based services as a necessity. Therefore, tax on such services should be levied based on their elasticity of demand. We argued above that an increase in equity will increase the cost of lending and hence will unfavourably impact the banks, leaving the smaller ones at a disadvantage. However, the removal of exemption of VAT would decrease the undue pressure on banks and give them a level playing field, similar to other companies. As highlighted by [Mishkin \(2012\)](#), increased competition, resulting from the financial innovation that decreased the profitability of banks, was responsible for the excessive risk taking by banks which led to the crisis. We therefore support a combination of both approaches, so that the banks would not be adversely affected by very strict policies, keeping in mind the tax and regulation heterogeneity that exists across countries and regions.

4.4 A Bank Levy

A bank levy, or tax, can be interpreted as an additional duty imposed on financial institutions, predominantly banks. Several countries have taken legislative initiatives in this respect, such as an additional levy applicable to banks which are considered to pose a systemic risk to the economy. Such bank levies are not applied to the profits of the bank (as the case of CIT), but are in principle levied on its (relevant) assets, liabilities or capital. For example, countries which chose to apply a levy on liabilities broadly speaking include Austria (which also covers some aspects of FTT because the tax is also levied on the volume of derivatives transactions), Belgium (including two other bank taxes explained below), Cyprus, Germany, Hungary, Iceland (which also taxes remuneration in much the same way as a FAT), Portugal, Romania, Slovakia, Sweden, the Netherlands (the usual rate is multiplied by a factor of 1.1 if one member of the board receives non-fixed remuneration of more than 25% of fixed income), the UK and the US (both the UK and the US give a 50% discount on the usual rate for more stable funding resources). On the other hand, the base of the French bank levy is regulatory capital, while that of Slovenia is total assets. Although these bases

are clearly related, it shows the focus of the bank tax.

A few countries such as The Netherlands, the UK and the US seem to tax only bigger banks and liabilities if they are beyond a certain threshold. For example, there is threshold of €20 billion in the Netherlands, one of £20 billion in the UK and of \$50 billion in the US. The bank tax in most countries (e.g., Austria, Hungary, France, Iceland, Portugal, Slovakia, Slovenia, the Netherlands and the United Kingdom) contributes to the general reserve; however, there is a dedicated resolution fund to draw upon in case of a crisis in some other countries (e.g., Cyprus, Germany, Korea, Romania and Sweden). In the US, the purpose of the bank tax called the ‘Financial Crisis Responsibility fee’ is different, in the sense that it is ex-post and is aimed at recovering any direct costs incurred by the failure of financial institutions under the Troubled Asset Relief Program (TARP). Belgium has three different kinds of bank taxes: one similar to the usual bank levies calculated on total liabilities, which contributes to the Resolution Fund; and a new bank levy which uses regulated savings deposits as the basis for calculating the tax due, contributing to the deposit protection fund and the financial stability contribution. Finally, there is a contribution to the Special Protection Fund for the deposits, life insurances and capital of recognised cooperative companies, which is calculated taking into account certain risk factors.

Because the bank levy is not being taxed under standard tax treaties, there is a risk of double taxation. In order to avoid this, the UK, German and French authorities are entering into a ‘double taxation agreement’, which will allow a proportion of the levy in one country to be credited against the levy in the other. This agreement has been enacted in the UK with respect to France from 1 January 2011, which allows a proportion of the French levy to be credited against the UK one.

In the UK, the treasury secretary has increased the bank levy from 0.105% to 0.13% to 0.142% with effect from 1 January 2014. This is the sixth increase in the levy since it was introduced in 2010. The Government has lowered the corporate tax rate from 28% to 24% and then to 22%, which will further decrease to 21% from April 2014. The bank levy was increased in order to take away the benefit of this reduction from the banking sector and with a view to raise revenue from it. In the UK, the levy is applicable to global consolidated balance sheet liabilities less tier 1 capital, protected deposits, sovereign repo liabilities and derivatives on a net basis. Therefore, an increase in bank levy means that the treasury secretary is aiming to tax the unsecured borrowings of the banking sector. There seems to be an overlap between the increase in the bank levy and the proposed Basel III Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR). LCR and NSFR incentivize banks to use more stable funding sources by reducing the reliance on short-term ones.

5 Conclusions

While several policy measures, including taxes, levies and regulatory measures, have been in place, and for that matter, many are still under discussion and consideration, the question of what should truly circumvent the negative micro-prudential externalities stemming from limited liability and asymmetric information relating to individual institutions and macro-prudential externalities relating to systemic risk still remains unanswered. More importantly, the impact of these externalities on the growth and development of several countries remains a source of worry amongst policy makers, academics, and several national and international bodies. Macro-prudential supervision is a device for reducing asset price inflation and thus the need to insure against bank failure via capital ratios and deposit insurance and resolution funds, but again these measures are untried and untested as yet. We highlight the inconsistencies within the taxation system and also the inconsistencies between the taxation and regulation with particular focus on banks. We indeed give an overview of different taxes those are extended to overall financial system but we keep our emphasis limited to banks with a view to finance resolutions mechanisms and to ensure banking and financial stability.

Current business tax rules encourage excessive debt because of the tax deductibility or ‘expensing’ of interest on debt, in contrast to equity, arguably already ‘double taxed’, dividend payments. Tax expensing should perhaps be removed to give debt equal treatment to equity, at least for banks. However, the increased emphasis on core equity will put the small saving banks at a disadvantage because they cannot issue equity very easily. In line with this argument, there is concern about the viability of universal banks. UK’s Independent Commission on Banking (ICB, 2011) recommended ‘ring fencing’ retail banking within universal banks. Ring fencing would impose higher costs on the universal banks and might encourage some of them to divest their retail banking businesses in pursuit of more risky and higher RoE generating investment banking and other banking business (Mullineux, 2012). The UK’s Parliamentary Commission on Banking Standards PCBS (2013) highlighted that whilst ring-fenced banks would carry out the majority of essential economic functions which need protecting, it is important to be clear that it is these functions that will enjoy protection and not the bank itself, its shareholders or creditors, other than depositors. There should be no government guarantee for ring-fenced banks, nor a perception of one, just depositor protection. Neither does ring fencing mean that risks from non-ring-fenced banks can be ignored; as such, institutions will remain systemic and difficult to resolve. Based on ICB (2011) and PCBS (2013) recommendations, the UK passed the Banking Reform Act on 18 December 2013. However, the EU is still considering the Liikanen’s proposal EC (2012) for limited separation of retail and universal banking. While the Volcker Rule passed in the US

in December 2013 and UK's Prudential Regulatory Authority is to consider such a law to prevent proprietary trading and prevent banks from running hedge funds. Nevertheless, this is a big and an ongoing issue, attracting proponents and opponents debating on complexity emanating from universal banking.

The UK Treasury has increased the bank levy for a sixth time since it was introduced in 2010 to compensate for the benefits banks can enjoy because of the falling corporate tax rate. The purpose of the bank levy is to tax the unsecured borrowings of the banking sector. Since the objective of the Basel III Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) is also to reduce reliance on short-term borrowings, there is potential overlap. As the stock of non-core liabilities reflects the under-pricing of risk in the financial system, we are of the view that a levy on non-core liabilities may perhaps mitigate the distortions. Further developments were made to the Banking Union agreement on 18 December 2013, in particular with the proposal to use a bank levy to build up, over a few years, the Bank and Recovery Fund to protect taxpayer-funded bank bailouts. We propose that the UK use its levy to take similar action.

The empirical literature on a financial transaction tax (FTT), which involves a fixed levy on the value of a currency or a financial asset (e.g. shares) traded, finds that it can be distortionary, as it reduces market trading volume and liquidity, and increases market volatility and the cost of capital for firms. There is the risk of a double 'taxation' of liquidity: one from an FTT and the other from the higher liquidity reserve requirements under Basel III. Because of the endogenous nature of liquidity, ideally there should be large number of buyers and sellers of an asset. Because Basel III requires banks to hold more liquidity on their balance sheets, it will decrease the number of buyers in the market and this situation could cause difficulties in times when many banks are seeking to sell their liquid assets following a major event.

Under Basel III, banks must also hold more capital to absorb losses, making them less risky. This should make it cheaper for them to raise capital and so they may not necessarily lend significantly less [Admati and Hellwing \(2013\)](#). Furthermore, if the tax distortions favouring debt over equity are redressed or reversed, with perhaps a bias towards equity instead, the higher regulatory capital ratios need not lead to lower bank lending in 'normal' times. Further, the return on equity (RoE) expected by institutional investors in banks was arguably excessive ahead of the crisis. Shifting the emphasis toward return on assets (RoA) is recommended as an alternative. An FTT might offset some of the benefits of cheaper capital if it leads to an increased cost of the capital. The imposition of an FTT should thus be adopted with a caution to ensure that it does not counteract the benefit of a higher capital requirements.

The European Commission has proposed an FTT rate of 0.1% on stock and bond trades and 0.01% on derivatives, on any transaction involving one financial institution with its headquarters in the tax area, or trading on behalf of a client based in the tax area.²⁴ The UK opposes the proposal and yet already has a stamp duty of 0.5% on the value of shares and property sold. The UK stamp duty is different from an FTT because it is applicable to the buying and selling of UK-registered shares only once; however, an FTT is applied to the gross value at each stage of the settlement chain of a financial transaction. While an FTT may not sound like much, the cumulative effect of charging each agent in a multi-step execution process can be substantial. Furthermore, the FTT may seem like a tax on banks, but it is highly likely that its costs would be passed on to the end investors.

There is a fear that the proposed EU FTT might adversely impact the repo market because of a substantial increase in the repo cost, as explained above. The central banks, which act as a lender of last resort, use the repo rate as a key monetary policy instrument. Such a substantial increase in the cost of doing repo would not only adversely impact the monetary policy tool of central banks but also seriously hit liquidity management for the borrower.

The proposed EU FTT is applicable to other non-participating member countries and to third countries if they are counterparty to financial transaction trading in an FTT zone jurisdiction. For example, if a UK share is purchased in an FTT member country, this would be subject to both UK stamp duty and the EU FTT; this is clearly a risk of double taxation for non-participating member countries. Moreover, the 2010 ‘Mirrlees Review’ [Mirrlees \(2011\)](#) of the UK tax system and the 2010 ‘Henry Tax Review’ [Henry *et al.* \(2010\)](#) of the Australian tax system both warn against the inefficiency of transaction taxes resulting from their distortionary effects.

Financial services are currently ‘exempt’ from Value Added Tax (VAT) in the EU, including the UK. Hence, banks cannot reclaim input VAT paid on their purchases. This non-recoverable VAT is one of the most significant taxes paid by banks and puts them at a disadvantage, which might lead them to taking excessive risk in search of profits and even engaging in illegal activities, such as the mis-selling of Payment Protection Insurance (PPI) and manipulation of LIBOR. The elimination of this exemption of VAT on financial services and the segregation of fee-based services and interest margin-based services is proposed. The removal of the exemption would increase revenue for the government, but consumers would have to pay additional taxes on the use of financial services. This might increase efficiency because it would discourage wasteful use of these services. Furthermore, it would also stop vertical integration of financial institutions, reinforcing their ‘bigness’, as they would not

²⁴An FTT in France has already existed since 1 August 2012 and one in Italy since 1 March 2013.

have any incentive to raise supplies in-house. Given the operational difficulties linked to the removal of exemption from VAT, the cash flow method with a Tax Collection Account (TCA) proposed by [Poddar and English \(1997\)](#) is recommended because this method was field tested with a panel of financial institutions and was found workable.

Because of operational difficulties attached to levying VAT on margin based financial services, FAT is sometimes given as an alternative solution. As value added is equivalent to the wages plus profits of an institution, a FAT would serve as a tax on value added. A FAT is also preferred over an FTT because it is less easily avoidable through relocations; its incidence is more certain and it would generate the same amount of revenue with fewer inefficiencies. A FAT is also considered to be a broad ‘net’ measure of a VAT compared to an FTTs narrow ‘gross’ measure of financial sector activity.

International co-operation has never been felt to be so important than at the present time. Besides, new instruments are clearly required, and action is also needed to reduce current tax distortions that run counter to regulatory and stability objectives. Specifically, pervasive tax bias in favour of debt financing could be addressed by any of a range of reforms to corporate income tax, such as allowance for corporate equity, as several countries have done.

Moreover, as highlighted by the [IMF \(2010\)](#) report, the implementation of several discussed tax and regulatory measures needs to be coordinated with that of the wider regulatory reform agenda, and the effects on the wider economy need to be carefully assessed. So far, regulatory and tax policies towards the financial sector have been formed largely independently of each other. Therefore, a more holistic approach is needed to ensure that they are properly aligned in both the incentives and the overall burden they imply for the sector.

Importantly, reforms needs to be carefully designed so as to not harm the industry’s ability to rebuild a capital base, and to ensure that shadow banking or other distortions are not encouraged by over-regulation or over-taxing some parts of the financial sector, especially in developing countries. Given the internationalization of the financial sector, and the growing importance of multinationals in the growth and development process, tax and regulatory measures need to be carefully designed so as not to encourage arbitrage activities, but at the same time to ensure a smooth pattern and flow of investment and trading activities between countries. While forming new tax and regulatory measures and at the same time attempting to co-ordinate with the wider regulatory agenda internationally, the importance of existing ‘heterogeneity’ across countries should not be ignored.

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