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# Taxing banks fairly

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ABSTRACT

There is no reason to continue to exempt financial services and products from Value Added Tax in the UK, and indeed elsewhere. Its introduction in the UK would help to precipitate the end of the iniquitous and inefficient 'free banking' system. Its demise should be enforced by a retail banking and insurance utility regulator that would assure that charges to customers reflect costs incurred by banks and thus eliminate the cross-subsidisation underpinning 'free banking'. Further, the shareholders and senior bondholders of 'too big to fail' banks enjoy a guarantee from taxpayers which they are not paying for. This puts them at a competitive advantage in relation to smaller banks and exposes taxpayers to losses in crises. The big banks should thus pay regulatory and fiscal taxes commensurate with the insurance they enjoy and these taxes should be carefully calibrated so as not to overburden domestic banks relative to international competitors. The taxes paid should relate to a bank's risk exposure and the risks a bank poses to the financial system as a whole. The banks should thus contribute proportionately (with other taxpayers) to producing the Public Good, financial stability. The issue of the tax bias caused deductibility of interest, but not dividend payments, as business expense is also explored. To achieve equal treatment of debt and equity, deductibility could be extended to dividends, but the tendency toward over indebtedness might be curbed if tax deductibility of interest was eliminated, perhaps starting with banks!



## 1. Introduction

Smith (1776) identified four enduring core principles of a good taxation system: equity, or fairness; efficiency; certainty (non-arbitrariness); and convenience (Lymer & Oats, 2011). Because taxes have the potential to change the relative prices of goods and services and factors of production, particularly labour relative to capital, they distort free market economic decision making. To reduce this tendency, unless fiscal policy is to be used to affect behaviour by discouraging smoking, drinking of alcohol and carbon emissions, for example, taxes such as value added tax (VAT) on goods and services should be uniformly applied. This view is clearly reflected in recent reviews of tax systems of the UK (Mirrlees, 2010) and Australia (Henry, 2010). The 'fairness' principle relates more to political economy than economic efficiency. To ensure willingness to pay, taxes must be seen to be fair in the sense that people with similar capacity to pay tax, pay similar amounts. This is commonly extended 'vertically' so that citizens with more capacity to pay tax, pay more, and citizens with less capacity to pay, pay less i.e. an equitable, or fair, tax system should be 'progressive', as Adam Smith recognised. It is, however, a matter for society to determine through the political system, how progressive or 'flat' the tax system should be.

Adam Smith also believed that the amount of tax paid should be related to usage of the goods and services provided by the state. In recent times, in cases where it is potentially possible to relate taxation to usage, industries have often been privatised and in some cases, such as higher education and health services, charges have been introduced without full privatisation. There is a class 'Public Goods' (Samuelson, 1954), where charges according to usage is not possible. For Public Goods such as defence of the realm, or policing, it is difficult to apportion usage and once provided, they are consumed, even if not equally enjoyed, by all. Individually, taxpayers may prefer not to contribute, but nevertheless potentially benefit from the contributions of others. There is a 'collective action problem' (Olsen, 1965) and state or government provision funded by taxation is required. In a democracy, however, voter – taxpayers have a choice about how much defence, or policing, or health services and education charging there should be and the role of the state in providing goods and services.

Financial stability, which is hard to define except in the negative sense of lack of instability, is an archetypical Public Good. It can potentially be enjoyed by all without reducing the amount to be consumed by others, but it is not costless to produce since regulation and supervision are required to achieve it. Given the costs, how much of it do we want? We face a 'Dutch dyke problem' (van Dantzig, 1956) in deciding how much to invest in financial stability, just as people in the Netherlands have to decide how much to invest in flood defences. At some point a non-zero probability of floods, or

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financial crises, has to be accepted. It may simply be too expensive to reduce their probabilities to zero. To do so in the case of banking would be to preclude banks from using deposits withdrawable on demand to make longer term loans. This may well result in slower economic growth. Mullineux (2011b) explores such issues.

A basic principle of tax reform is to reduce tax induced distortions, unless there are social or ethical reasons to do otherwise, by imposing taxes uniformly or neutrally and increasing convenience and simplicity, (Mirrlees, 2010). Uniformity, will not however, achieve a progressive, 'fair' or 'equitable' outcome because it will be 'regressive' in the sense that people with lower incomes, or less wealth, will pay proportionally more tax on consuming basic goods, such as non-luxury food, children's clothing, and heating etc. 'Society' (the electorate) may decide that a more equitable, or progressive, system is required in which, for example, public transport (buses and train journeys) is exempt from (VAT), as in the UK; where food and children's clothing is zero rated.[1] Alternatively, neutrality could be preserved with all products and services charged VAT at the same rate; with targeted welfare payments used to offset the lack of progressiveness in the name of fairness, in accordance with the will of the electorate.

In a similar vein, income, capital gains, and corporation (profits) tax could all be charged at the same 'flat rate' or at progressively increasing rates as income or profits rise; if progressiveness is thought desirable. There is also the option of scrapping income and indirect consumption taxes, such as VAT, and introducing direct (flat rate) consumption tax on net income (i.e. net of progressive income tax and net of saving). The degree of progressiveness is, as noted, a choice to be made by society.

With regard to VAT, 'fiscal policy' can also be used to discourage behaviour thought socially or publically not to be virtuous. Thus supplementary levies ('excise duties') might be charged on alcohol and cigarettes in order to discourage the associated activities and to reduce 'externalities' in the form of increased cost of providing health services, for example. Similarly, fuels might be subject to a 'special duty' to reduce usage of cars, for example, and consequent carbon emissions. Meanwhile, books might be zero rated to promote learning, as in the UK. In sum, taxes can be used to provide incentives in pursuit of government health, education and environmental policies.

Within such a framework, it is hard to see why many banking and insurance products and services are exempt from VAT. Indeed, one might expect the trading of financial instruments to be subject to special levies, as recommended by Tobin (1984), the Economics 'Nobel' (Riksbank) Prize winner. A 'turnover tax', or 'Tobin tax', is a tax on each financial transaction, or related to the value of each transaction, and should thus discourage 'excessive trading' that is believed to be 'socially useless' (Turner, 2009), or wasteful (Tobin, 1984) and does not contribute to GDP by adding value (Werner, 1997, 2005). It may also discourage 'churning' to increase fee income from investor clients, 'speculation excess', and 'shorting', which may be welfare reducing. A contrary view is that such trading is useful in enabling the discovery of market clearing prices. Whether or not the 'Tobin' tax should be 'hypothecated' for specific uses, such as reducing domestic or international poverty and thus serve as a 'Robin Hood' tax; taking from the rich to give to the poor, is an issue not perused here. The revenue from such a tax might alternatively be used to fund regulation and supervision of the financial sector to better assure financial stability and the 'fair' treatment of customers (www.fsa.gov.uk), for example. Further, in the absence of a solution to the problem, explained in the next paragraph, of applying VAT to financial services, a transaction tax, especially if related to the value of the transactions, might serve as an approximation to VAT. Turnover taxes or 'stamp duties' are already charged in the UK on sales of shares and houses and are proportionate to the value of the sales.

Extending VAT to the banks, and the wider financial service sector, has hitherto been regarded as problematic, and yet fee revenue which is an increasing proportion of total financial sector income, is relatively easy to subject to VAT. Traditional commercial banking, which is in relative decline (Mullineux, 2010), relies on the interest rate 'margin', or 'spread' between (generally higher) lending and (generally lower) borrowing rates to generate revenue. The problem is to identify the value added by the bank — what is the output revenue generated by the bank on which VAT could be charged, and what is the cost on which VAT could be reclaimed by the bank? Nevertheless, approximations can be made and New Zealand and Australia, which have more recently introduced VAT (called GST, or Government Services Tax) systems than the UK, have been making progress. This is especially true in the case of New Zealand, where substantial revenue is generated (IMF, 2010; Mirrlees, 2010), though Australia's Henry Report (Henry, 2010) on modernising its tax system advocated extending a proxy VAT to financial services, including banking.

Further, in a report for the G30, the IMF observed that the aggregate or total 'value added' by a bank is represented by its profits plus its salary bonus payments pool, and that this could be taxed (on top of corporation tax) at the VAT rate, or some other rate deemed appropriate; at least until a micro economic approximation to VAT is in place (IMF, 2010). This proposal has the advantage of taxing bank employee bonuses, which have increasingly been viewed by society as excessive, without the need for a special levy on them. A special levy on bonuses might however be politically more popular and could be at a higher rate than VAT, which varies substantially across countries (20% in the UK and 10% (GST) in Australia, for example). The need for international consistency to create a 'level (competitive) playing field' across countries and the desire for neutrality might require applying both VAT to financial products and services and a supplementary special levy to achieve harmonisation of bank tax rates, given that VAT rates vary across countries.

### 1.1. The end of 'free' banking

The absence of VAT on most basic banking products and services is extremely distortionary in the presence of 'free banking', which is widely available in the UK; where banks typically waive money transmission and payment charges for customers who maintain credit balances. The banks then offer interest well below the money market rates on positive balances, and often also offer small overdrafts at no extra charge. As a result, implicit (non-taxed) interest is paid in the form of waived charges, and less income tax is due on the below market related rate interest accrued. Tax is thus avoided, and underpriced money transmission services are consequently used excessively, creating wasteful inefficiency. Worse, it is inequitable since users making numerous transactions and maintaining low balances ('young professionals') gain at the expense of low transaction volume, high balance, users ('old ladies'). The 'old ladies' commonly find it difficult, often due to disabilities, to manage their money to maintain low balances in low interest accounts, into which pensions and dividends are received; and the banks do not routinely contact them in order to offer to 'sweep' excessive current account balances into higher interest savings accounts, preferring instead to profit from high balances in low interest bearing accounts.

Further, arguably punitive penalty charges, well in excess of the costs to banks, are levied by banks on customers that exceed agreed (often zero for the less wealthy) overdraft limits, and as the interest owed compounds, people less able (as well as those less willing) to repay help to cover the costs of 'free banking' for the better off and less debilitated. These problems have been compounded by aggressive selling of expensive Payments Protection Insurance (PPI) by bank staff, often incentivised by fee per sale bonuses. This has been

[1] No VAT is charged on either exempt or zero rated items, but VAT can be reclaimed on goods and services consumed as inputs are producing zero rated items. This is not the case for exempt items, such as financial services (Lymer & Oats, 2011).

driven by a desire on the part of banks to raise fee income to cover the cost of providing 'free banking'. The Competition Commission (2009) in the UK has required banks to pay compensation to affected customers. The banks appealed unsuccessfully in the courts against the Competition Commission ruling that PPI had in many cases been mis-sold. They had previously successfully appealed against a proposed restriction on their alleged 'punitive' charges for unauthorised overdrafts; despite a prior ruling against similar punitive charges imposed on credit card customers.

The big banks, through their trade association, the British Bankers Association (BBA), have warned repeatedly that any requirement to eliminate penalty charging or eliminate PPI sales would threaten the future of 'free banking'. However, some banks, such as RBS, seem to have acknowledged that 'free banking' is unfairly regressive, leads to an inefficient allocation of resources, and should be replaced by a system in which the costs of providing banking services are recovered through fees based on usage, rather than relying on punitive penalty fees, and market related interest is paid to depositors.

The government should establish a retail banking utility regulator to enforce this development (Mullineux, 2009) by requiring fees and penalty charges to be cost related, and thereby stop the iniquitous cross-subsidisation underlying the inefficient 'free banking' system. Banks would then need to replace implicit interest with actual interest in order to attract deposits. As a result, more income tax revenue would flow from the higher interest income, and if bank charges were subject to VAT, or a proxy to it, more tax revenue would flow from usage of money transmission services and other financial services and products. Excessive, wasteful, usage of the payment systems (including bank notes and coins perhaps) would also be discouraged. Tax revenue from these sources would flow from the creation of a more neutral and equitable tax system and should, therefore, probably not be hypothecated for special usage; such as financing financial regulation and supervision. An additional proposal debated at the ECOBATE 2011 conference, on which this Special Issue is based, is to increase competition banking by encouraging the establishment of numerous locally head quartered banks, as in Germany (Mullineux & Terberger, 2006); perhaps by introducing enabling legislation to allow credit unions to compete on a more equal basis with banks (Werner, 2011). The Independent Commission on Banking Report in November 2011 (ICB, 2011) also advocates increasing competition in banking; but on a more limited scale through the sale by the Lloyds Banking Group of 500 or so branches, as required by the European competition the authorities, to a new entrant or an established second tier bank, such as Co-operative Bank.

### 1.2. Eliminating the taxpayer subsidy of big banks

Big British banks have been revealed by government's response to the 2007–9 'Global Financial Crisis' (GFC) to enjoy a massive 'implicit' subsidy from taxpayers in the form of credit and liquidity guarantees (Admati, DeMarzo, Hellwig, Martin, & Pfleiderer, 2010; Rajan, 2010) well above and beyond that paid for by their contributions to the Financial Services Compensation Scheme (FSCS) operated by their regulator, the FSA. The FSCS insures bank depositors and other retail investors in financial products. This implicit subsidy enables large, 'too big (to be allowed) to fail' banks (Mullineux, 2011a) to raise 'capital' (equity and bond finance) and 'wholesale' money market funding, more cheaply than smaller banks, which can be allowed to fail. This not only gives the big banks an unfair competitive advantage over smaller banks, but also reinforces their bigness as depositors will regard them as safer; unless they can be persuaded that their deposits are equally well insured at smaller banks.

As noted above, 'financial stability' is an archetypical Public Good. Government provision is thus required for the benefit of all, in the public good; but should taxpayers fully cover the cost of providing financial stability, given that the big banks gain a competitive advantage over smaller banks as a result of attempting to provide it and their shareholders and senior bondholders are implicitly guaranteed? It would seem that the aforementioned 'fairness principle' of taxation would require the big banks to contribute enough to the cost of providing financial stability to eliminate their competitive advantage, and the consequent 'economic rents', or profits, they enjoy as a result of its provision.

Depositors in big banks benefit from the explicit guarantee of deposits up to £85,000 per person provided by the ICS, as well as the implicit supplementary guarantee of TBTF banks; but as taxpayers, most are liable for covering the costs when the guarantee is called upon. Hence, though most taxpayers are also bank depositors, the depositors in big banks benefit disproportionately. A special levy and on banks and other special regulatory requirements to underpin the safety of the big banks, such as proportionately higher systemic risk related capital and liquidity requirements than those for smaller banks, is thus justified. Such regulations, along with the deposit insurance premiums paid by banks to the deposit insurance scheme, can be regarded as non-revenue raising 'taxes' on banking activity and might be absorbed in part by shareholders; but some of the associated costs may be appropriately passed on to depositors in the form of lower interest rates, and to other customers, in the form of higher charges. This would achieve greater 'fairness' because those that most benefit from the increased safety would pay for it. In addition, the deposit insurance and capital and liquidity taxes should be risk-related, so that banks taking the most risk, and thus threatening financial stability the most, pay proportionally more 'regulatory tax', and excessive risk taking is discouraged.

As their contribution to the provision of the 'financial stability', the big banks should pay a sufficient amount of 'tax' in one form or another to eliminate their competitive advantage. This contribution should be an additional to their contribution to a pre-funded deposit insurance scheme charging risk related premiums. Alternatively, the big banks could be exempt from contributing to the deposit insurance scheme on the grounds that it is to cover the deposits of smaller banks only, and required to make a proportionally larger tax contribution in other ways.

Should any special levy on the big banks be hypothecated and paid into a separate fund to be used to insure their depositors and to finance their potential bailouts? Such a fund would have to be very big in countries such as the UK, where the big banks are very large relative to GDP, and would normally be idle; so how would it best be invested? Should it be used to fund infrastructural public works through a national development bank, to finance a 'growth fund' to lend to small or medium sized enterprises, or a 'green bank', a 'Big Society' bank, or Community Development Financial Institutions (CDFIs) and to sponsor the development of Credit Unions to overcome financial exclusion and increase competition, or to fund financial education and debt advice to encourage more responsible borrowing? These possibilities are not mutually exclusive and the UK government is already sponsoring initiatives in a number of these areas. Alternatively, the 'tax' collected could simply contribute to funding general public expenditure. In 2010, the UK coalition government introduced a special Bank Levy on big banks, based primarily on the difference between a bank's debt liabilities and its retail deposit base, with a view to raising a target level of tax revenue and discouraging over-reliance on more risky wholesale funding (Mullineux, 2011c). The revenue is not to be hypothecated for the purposes listed above.

The big banks should also expect to face a 'polluter pays' tax for 'cleaning up' the economy after the next crisis, given that government initiatives to alleviate the recessionary impact of the GFC on the UK economy have led to a sizeable UK budget deficit. If the threat of a polluter pays levy is credible, it might discourage excessive risk taking by punishing the worst offenders, and thus help to alleviate the moral hazard problems which the underwriting of big banks by taxpayers creates. The moral hazard gives shareholders an incentive to encourage bank management to pursue higher returns on equity, and thus risks, than they otherwise would. The banks that fail to manage the consequent risks should perhaps be prevented from paying bonuses to employees and dividends to shareholders until they have rebuilt their capital ratios and returned to profit ability. Their ability to set aside losses against future taxes on profits might also be curtailed, but they must be made to fully compensate the taxpayer for their bail-out as quickly as possible. Shareholders should bear losses and senior, as well as junior, bondholders[2] should also be required to compensate taxpayers; otherwise moral hazard will be exacerbated, not curbed. Under the current system, risk is shifted from shareholders to senior bondholders (Admati et al., 2010), and because the latter are implicitly insured, there is a distortion to the cost of debt and equity capital which leads to a bias towards leveraging and thus too much debt and not enough equity is issued.

### 1.3. Too much debt and not enough equity?

There is thus a major distortion in the tax treatment of bank debt and equity. The 'Mirrlees Review' of the UK tax system (Mirrlees, 2010) argued in favour of achieving neutrality by extending the deductibility or 'expensing' of interest payments on business debt (loans and bonds) to the costs of servicing equity (shares in companies) through dividend payments. Without equivalence between capital gains tax (CGT), income tax and corporation tax, neutrality is, however, impossible to achieve. The standard and higher UK rates of CGT are 18% and 28%, corporate tax ranges between 21% and 28% and the top bands of income tax are 40% and 50%. For employees, neutrality would require the CGT rate to equal income tax rate. From the company investment perspective, neutrality requires CGT to equal Corporation Tax (28% for larger UK firms).

There is, however, a long standing view that a better way to achieve neutrality is to remove tax deductibility of interest on debt for all businesses (IMF, 2010). Small and medium sized enterprises, given their heavy reliance on bank loans (Bernanke & Blinder, 1992), naturally object strongly to this proposal, and Republican/Conservative parties are sensitive to SME lobbying. Alternative, equity based, 'venture capital' is often only available to high tech or innovative 'growth firms', not 'family' or 'lifestyle' businesses. Hence the payment of interest is widely regarded as a business expense. The same cannot be said of the tax deductibility of mortgage interest payment for consumers in the US and Switzerland. The UK removed MIRAS (mortgage interest relief as a source) in April 2000. It would of course be difficult for any country to independently remove the tax deductibility of interest for business whilst others maintained it.

### 1.4. Should banks be allowed to 'expense' interest payments?

There may however be a much stronger case for an internationally co-ordinated removal of the tax deductibility of interest as a business expense for banks, which are at the epicentre of leveraging and debt creation. They should perhaps be encouraged to finance a much larger proportion of their retail and commercial banking business using equity and retail, as opposed to wholesale, or 'interbank', deposits. More equity issuance, and less leveraging and reliance on wholesale funding would make retail banking less risky, and thus equity would become cheaper, creating a virtuous circle (Admati et al., 2010).

The return on equity (RoE) in retail banking would naturally fall in a less risky banking system, but it is the return on risk weighted banking assets that really measures the efficiency of asset allocation in banking. The 'universal banks'[3] might divest their of retail banking activities in pursuit of a higher return on equity, but mainstream retailers may be attracted by the synergies offered by combining retail banking with their other businesses; and retail banking customers would be the winners if customer focus and service were enhanced as a consequence. It seems that the investment banking sections of universal banks rely heavily on retail banking deposits as a steady source of funding and the ability to use commercial loans to larger companies as 'loss leaders' to secure more lucrative, fee earning, corporate and investment banking business.

In contrast, the retail banking sections and their customers do not need to be exposed to the more risky investment banking business and should probably be separated from it. As a consequence, universal banks should not attempt to match the RoE of more risk seeking specialist investment banks. The regulation of retail banking as a utility (Mullineux, 2009) would assure less risky retail banking. The investment banking arms of the universal banks should not have the ability to use retail deposits to fund their more risky business. Faced with higher costs of running retail banking as a utility, the universal banks might choose to abandon retail banking in order to seek a higher RoE, without any legislation require separation of retail and investment banking. The UK government has not chosen to establish a dedicated utility banking regulator, however, and instead decided (Treasury, 2011) to establish a Consumer Protection and Authority (CPA), which combines consumer protection with the regulation and supervision of wholesale banking and security markets. The UK government did, however establish Independent Commission Banking (ICB). Its report (ICB, 2011) recommended 'ring fencing' retail banking within the big universal banks by requiring them to establish separately, and more highly capitalised, subsidiaries. Ring fencing will impose higher costs on the 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.

### 1.5. Achieving a balance between regulatory and other taxes on banks

Prudential capital adequacy and liquid asset reserve requirements, which have been formulated under 'Basel III' (BCBS, 2011) can, as noted above, be regarded as non-revenue raising 'taxes' on banks. Additional levies have been proposed on big, systemically important banks, (FSB, 2012). Retail banking oriented mutual and public sector savings banks that do not issue equity will be handicapped by the increased emphasis on 'core' equity capital under Basel III; which thus re-enforces a bias towards shareholder owned banks and handicaps mutual banks and public banking alternatives. This regulatory 'tax' bias seems unwise, especially as the shareholder owned (limited liability) banks tend to be larger than mutuals! The bias should be redressed because it is far from clear, indeed rather the reverse, that mutuality and public provision of retail banking services are less socially beneficial than that by shareholder owned banks (Mullineux & Terberger, 2006). Shareholder ownership entails conflicts of interest between shareholders and depositors, who are the main funders of retail banks, and also exposes taxpayers to implicit liabilities (Mullineux, 2006). Mutuality overcomes these conflicts and should be encouraged as a viable alternative.

An appropriate balance between regulatory and 'fiscal', revenue raising, taxes and special levies needs to be struck to avoid overburdening banks and creating international distortions to competition. There are choices to be made between the 'stick' of regulatory 'taxes', and the 'carrot' of fiscal incentives designed to change bank behaviour. Profits derived from risky activity could for example be more heavily taxed as an alternative to requiring banks to hold more in-house insurance (capital) against risk weighted assets. The

[2] Senior bondholders are ahead of junior bondholders in the pecking order of credit rights. Depositors are supposed to be the most senior creditors, but government guarantees seem to be required to assure this.

[3] Which combine retail, wholesale and investment banking (Casu, Girdane, & Molyneux, 2006; Matthews & Thompson, 2008).

insurance principle of pooling, or sharing, risks would suggest that it is inefficient to force banks to hold very large in-house regulatory capital and liquidity funds. More reliance on pre-funded deposit insurance with premia that increase with banking risk exposures seems preferable. The bank deposit insurance fund manager would then naturally adopt the role of regulator and supervisor of banks, or at least those not too big to fail, and the accumulated fund could be used to meet the costs of the resolution of these banks; as is the case in the US, where the Federal Deposit Insurance Corporation plays this role.

The debate is clouded by the view that raising levels of bank equity funding might lead to substantially less lending, and consequently slower growth. Finance theory demonstrated that in perfect markets this would not be the case (Modigliani & Miller, 1958). Even in imperfect markets, the claims of research sponsored by the Institute for International Finance (www.iif.com), an association of global financial institutions, that a sharp curtailment of affordable lending as a result of higher capital requirements is likely to be dramatically exaggerated (Admati et al., 2010; Miles, Yang, & Marcheggiano, 2011). As in the past, banks can and should probably be expected to hold much more capital than even Basel III proposes (Capie & Wood, 1991) and, if they did so, capital would become cheaper as their riskiness, and RoE, would fall to historically more 'normal' levels (Admati et al., 2010). It is the return on risk weighted banking assets that counts as far as society as a whole is concerned, and social and environmental, as well as monetary, returns should be taken into account.

If, however, a 'credit crunch' does occur, so that banks lend less than publically or socially desired, then banks should be induced by the government to lend more. Government funded schemes that partially guarantee the banks against loan losses and help them raise cheaper funding through government guaranteed bank bond issuance combined with some matched government funding, could be used. In 2011/12, the UK government was in the process of introducing such 'credit easing' initiatives. Loan guarantee schemes are employed in the most developed economies, including the US through its Small Business Administration (SBA), in response to the 'information asymmetry' and the resulting 'adverse selection' problem that leads to 'credit rationing' by banks (Stiglitz & Weiss, 1981). The German loan guarantee schemes for SMEs operated by KfW Bankengruppe are also highly effective (Mullineux & Terberger, 2006).

During a financial crisis, and in subsequent recessions, 'normal' credit rationing is compounded to become a 'credit crunch', and SMEs (Bernanke & Blinder, 1992) and households, or retail customers, suffer most from it. There is thus a case for enhancing guarantees of SME lending by banks in the aftermath of a banking crisis and perhaps additionally for establishing public sector banks to fill particular acute credit voids. Alternatively, as advocated by Werner (2005), the government could direct banks, especially RBS, in which the taxpayers stake is over 80% and Lloyds Banking Group, where it is over 40%, to lend more to target sectors such as SMEs and to provide mortgages for first time buyers, perhaps on more favourable terms than they otherwise would. Such 'credit guidance', which is common in East Asia, would be an enhancement of the 'moral suasion' historically used by the Bank of England to influence banks' behaviour. In a related article in this Special Issue, Lord Adair Turner (Turner, this issue) seems to support this proposal.

## 2. Conclusion

The ideal is to achieve equal treatment of large 'too big to fail' banks and smaller banks, that can be allowed to fail, using a combination of prudential regulations, or non-revenue raising 'taxes', and fiscal, revenue raising taxes on banks to curb moral hazard and 'excessive' risk taxing. Both the implicit and explicit deposit insurance 'premiums' should be risk related in order to underpin financial stability and efficiency for the public or common good, as well as the provision of the Public Good, financial stability; to which the taxpayer may also need to contribute via general taxation. Further, the bias toward debt finance implicit in the differential tax treatment of debt and equity finance should be addressed.

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