Original Article

The myth of too big to fail

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ABSTRACT Too big to fail (TBTF) is a doctrine stipulating that big firms (particularly financial institutions) cannot be allowed to fail because of the potential adverse impact the failure may have on the rest of the sector and the economy at large. When they are in trouble, financial institutions utilise the language of fear to demand the privilege of TBTF at a significant cost to taxpayers. From the perspective of costs and benefits, the TBTF doctrine must go the way of the dinosaurs.
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INTRODUCTION

Too big to fail (TBTF) is a doctrine postulating that the government cannot allow big firms to fail for the very reason that they are big (or so it is claimed). With respect to financial institutions, this doctrine is justified on the basis of the adverse consequences of the failure of one institution for the whole financial system (and perhaps the economy at large). The objective of this article is to revisit and review the TBTF debate, now that the global financial crisis has brought it back to life. It is argued that the TBTF doctrine is a product of the political power of financial institutions, as well as the unbalanced relation between the financial sector and the rest of the society. Since the TBTF doctrine is an American invention, the article deals with the issues under consideration predominantly from an American perspective. We start with the meaning, origin and history of the TBTF doctrine.[1]

THE MEANING AND ORIGIN OF TBTF

One interpretation of TBTF is that a big firm cannot (or is unlikely to) fail, simply because it is big. This, the argument goes, is because big firms benefit from the economies of scale and scope, which make them more efficient than small firms. A big firm is typically more diversified than a small firm, which puts the big firm in a superior competitive position and reduces its exposure to the risk of structural changes in the economy. A big firm also enjoys significant market power and a lower cost of capital. However, the common interpretation of TBTF is that it refers to a firm that is too big to be allowed (by the government) to fail. There is no agreement on what makes a particular firm TBTF and another firm not too big to fail (NTBTF).[2]

The global financial crisis has brought the TBTF debate back to centre stage. The crisis has made it clear that the TBTF doctrine amounts to saving financial institutions from their own mistakes by using taxpayers' money – hence, the debate has a moral dimension. There is now a widespread belief that government bailout of failed financial institutions amounts to funneling funds into 'parasitic operations' at the cost of starving the productive base and infrastructure of financial resources. The crisis has also given rise to parallel notions, some of which are rather cynical. One of these notions is that of 'too politically connected to fail', as some would think that the decision whether or not to bail out a financial institution depends on how politically connected it is. Other cynical notions that crop up in the discussion of the TBTF issue include 'too big to survive', 'so big that it has to fail' and 'too big to succeed'. These notions imply that size could be detrimental to the survival of a firm (diseconomies of scale and scope may materialise). And there is more, including 'too big to fail is too big', 'too big to save' and 'too big for their boots', implying that a firm that is TBTF must be prevented from becoming so big that it is either difficult or expensive to save.

THE HISTORY OF TBTF

The history of TBTF is essentially the history of financial regulation in the United States. Looking at the historical record, the regulation of financial markets and institutions has worked in the past to reduce risk and maintain financial stability. Until 1933, the United States experienced banking panics roughly every 15–20 years. In a reaction to the Great Depression and the near collapse of the banking system, the Roosevelt administration introduced sweeping regulatory measures, including the creation of federal deposit insurance, securities regulation, banking supervision, and the separation of commercial and investment banking under the Glass–Steagall Act. The regulatory measures resulted in the stability of the US financial system over much of the twentieth century.

Significant financial failures re-emerged in the 1980s, and with that came the notion of TBTF as the government became a 'rescuer of last resort'. In 1984 Continental Illinois became the first big bank to be offered the TBTF status. Then there was the savings and loan crisis, followed by the bank failures in the early 1990s that forced the US government to recapitalise the FDIC's Bank Insurance Fund. Long-Term Capital Management (LTCM), a largely unregulated hedge fund, collapsed in 1998 but it was saved from bankruptcy by a Fed-initiated plan, on the grounds that the fund was posing systemic risk. That event marked the perilous action of granting the TBTF status to hedge funds. In the first decade of the twenty-first century we have already witnessed the bursting of the tech bubble in 2001, the accounting scandals that destroyed Enron in 2001 and WorldCom in 2002, and the global financial crisis (as well as its predecessor, the subprime crisis).

It is no coincidence that all of these financial crises followed a concerted push (in the name of efficiency and freedom) by bankers, right-wing economists and *laissez faire* policymakers to deregulate financial markets and institutions. In the United States it was President Reagan who set the philosophical tone in his 1981 inaugural address when he declared that 'government is not the solution to our problem; government is the problem'. Thereafter, regulatory minimalism and a 'market knows best' attitude dominated decision making for nearly three decades, irrespective of whether a Democratic or Republican administration was in power. Under these conditions, a huge amount of financial activity migrated away from regulated and transparent markets and institutions into the lightly regulated or unregulated shadow markets encompassing mortgage brokers, hedge funds, private equity funds, off-balance sheet structured investment vehicles and a booming market in opaque (also useless and dangerous) derivatives, particularly the notorious collateralised debt obligations and credit default swaps.

Until the 1980s, it was generally assumed that failure, along with losses for shareholders and bondholders, was an accepted possibility for financial institutions. The break from normal practice by bailing out Continental Illinois in July 1984 divided the administration. Donald Regan, the then Treasury Secretary, found the intervention outrageous, calling it 'bad public policy' and arguing that 'it represents an unauthorized and unlegislated expansion of federal guarantees in contradiction of executive branch policy'.[3] But the White House accepted the argument put forward by the Fed and FDIC that the alternative was to risk a systemic crisis in the financial industry. The TBTF principle persisted during the savings and loans crisis of the late 1980s and early 1990s when the US government saved uninsured lenders to big banks whenever it saw (or led to believe that there was) a risk to the broader system. In the summer of 1991 Fed Chairman Alan Greenspan, who was not a fan of deposit insurance, said that 'there may be some banks, at some particular times, whose collapse and liquidation would be excessively disruptive'.[3]

With time, TBTF protection was extended beyond commercial banks to other financial institutions, including hedge funds. When LTCM got into trouble in 1998, having indulged in risky derivative trading, it was leveraged 53 to 1 with investments worth US$125 billion and shareholders' equity of $2.3 billion. The Fed's intervention on that occasion was misguided, unnecessary and justified in terms of unjustifiable concerns about the effects of LTCM's failure on financial markets.[4] In the short run, the intervention helped the shareholders and managers of LTCM to get a better deal for themselves than they would have obtained from a purely private-sector deal.

During the global financial crisis, the US government adopted a 'cherry picking' approach to granting the TBTF status, and therefore bailout, to failed financial institutions. In September 2008 Henry Paulson, the then Treasury Secretary, was unapologetic about refusing to extend financial assistance to Lehman Brothers as the Bush administration signalled strongly that Wall Street should not expect help from Washington. Mr Paulson said that he never once considered it appropriate to put taxpayers' money at risk to resolve the problems at Lehman Brothers. But it was under Mr Paulson's watch that the US government acted to save Bear Stearns, orchestrating the company's sale to JP Morgan Chase by providing up to $30 billion in financing (thus extending TBTF protection to investment banks).[5] In September 2008, we saw the sale of Merrill Lynch to Bank of America, the first bailout of American International Group (AIG), and the takeover and immediate sale of Washington Mutual to JP Morgan, all of which were brokered (and financed, at least in part) by the US government. In October 2009, nine large banks were recapitalised on the same day behind closed doors in Washington. This was followed by additional bailouts for Citigroup, AIG, Bank of America, Citigroup (again) and AIG (again).

THE GROWTH OF FINANCIAL INSTITUTIONS

To claim TBTF protection, a financial institution must be big. The question that arises here is whether obtaining the TBTF status provides a good reason for growing big or that there are other motives for the drive to big size. Irrespective of the motivation, we will reach the conclusion that big size is no good.

The growth of financial institutions may be explained in terms of the same reasons as why other firms want to grow big. An important reason is to avoid the transaction costs resulting from using markets. Transaction costs that can be avoided (or reduced) by centralising them in one firm include the difficulty of price discovery and the costs of brokering deals and raising capital from outsiders. This proposition is sometimes referred to as the 'internalisation hypothesis', which is an extension of the original idea put forward by Ronald Coase, stipulating that certain marketing costs can be saved by forming a firm.[6]

A more important reason for the growth of firms is the desire to obtain market power. Financial markets are basically oligopolistic (where few big firms dominate), but oligopoly has all of the disadvantages and repercussions of monopoly. Because oligopolists often develop agreements and avoid price wars (which would be damaging to all), they end up being like a collective monopolist. On this issue, J.K. Galbraith pointed out that 'the power exercised by a few large firms is different only in degree and precision of its exercise from a single-firm monopoly'. He further argued that 'in the … oligopoly, the practical barriers to entry and the convention against price competition have eliminated the self-generating capacity of competition'.[7]

A large body of literature finds empirical support for the hypothesis that banking consolidation leads to anti-competitive behaviour. In a review of the issue, Berger *et al* suggest that banks in more concentrated markets charge higher rates on small business loans and pay lower rates on retail deposits.[8] Furthermore, they respond more slowly to central bank changes in interest rates, making it more difficult to get out of recession. One conclusion of this study is that banking consolidation could boost systematic risk, the risk that cannot be eliminated or reduced via diversification. Simon Johnson goes as far as attributing the global financial crisis to lack of competition in the financial sector, arguing that 'this crisis was in many ways spawned and largely perpetuated by the decision of US citizens and politicians to allow banks to merge into un-competitive juggernauts and to then trust them to take tremendous risks with our nation's wealth'.[9]

The global financial crisis has intensified bank concentration in the United States, boosting the market power of the super-banks. Following the change of status of Goldman Sachs and Morgan Stanley from investment banks to bank holding companies, to enable them to acquire failed institutions, the share of commercial banks of the $24 trillion assets of the financial system (170 per cent of GDP) rose from 37 per cent in June 2008 to 46 per cent in October 2008. This consolidation has established six banks accounting for two-thirds of the assets of the banking system.

Achieving the TBTF status is in itself a good reason why financial institutions want to grow to be TBTF. 'Life is beautiful when you are too big to fail', as Berman puts it.[10] He cites the work of Brewer and Jagtiani who estimated how much a financial institution would be prepared to pay for the privilege of being TBTF. They examined banking merger data over a period of many years and found that banks were willing to pay a premium on a deal that would take them over $100 billion in assets (deemed by them to be the threshold for TBTF).[11] Specifically, they found that nine banks that did such deals paid $14–16.5 billion to get what Berman calls the 'gold-plated TBTF status'.

There are indeed stronger arguments against than for big financial institutions. The main argument for is the efficiency derived from the economies of scale and scope, but it is often the case that economies turn out to be diseconomies. Another argument is that diversification may result in less risk for the institution, as diversification reduces reliance on the demand for any single service or product. But branching out into new territories may prove fatal, and it is the antithesis of specialisation and the law of comparative advantage. Some would argue that big and diversified financial institutions provide convenience to individuals and firms. But these advantages seem to be rather trivial and pale into insignificance when we judge them against the disadvantages of big financial institutions. Simon Johnson argues that the model of financial supermarkets has failed as indicated by 'gargantuan losses, bloated overhead, enormous inefficiencies, dramatic and outsized risk taken to generate returns large enough to justify the scale of the organizations, ethical abuses in cross-marketing in violation of fiduciary obligations, and now the need for major taxpayer-financed capital support for virtually every major financial institution'.[9]

THE SIZE OF THE FINANCIAL SECTOR

Since the end of World War II, and particularly since the beginning of the 1980s, the financial sectors of developed countries have grown at a much faster pace than other sectors of the economy to grab an ever increasing share of GDP and total corporate profit. Indeed the financial sector has become a world of its own, an entity that exists for its own sake, not for the purpose of supporting real economic activity (the production of goods and services).

Philippon studied the growth of the US financial sector over the period 1860–2007 and concluded that this growth seemed to reflect fundamental economic needs up to 2001, but that it was not clear why the financial sector kept growing so quickly after 2002.[12] His analysis and consequent conclusion are based on the proposition that financial institutions provide services to households and companies and that the financial sector's share of aggregate income reveals the value that the rest of the economy attaches to these services. On the basis of a simple model that attributes changes in the size of the financial sector to corporate demand for financial services, Philippon found that the US financial sector was about one percentage point of GDP too big.

The main defect in Philippon's work is the proposition that the size of the financial sector reflects the value that the rest of the economy attaches to financial services. The expansion of the financial sector was sustained even when the wider community started to realise that some products of the so-called 'financial engineering' were useless, did not serve any meaningful purpose and encouraged risk taking. This is why Philippon is bewildered by the continued growth of the financial sector after 2001. His explanation of the growth of the financial sector in the period since 1980 overlooks an important explanatory factor – that is, financial deregulation.

Simon Johnson suggests some figures that are more indicative of the size of the US financial sector. From 1973 to 1985, the financial sector never earned more than 16 per cent of domestic corporate profit. In 1986, that figure reached 19 per cent. In the 1990s, it oscillated between 21 per cent and 30 per cent, higher than it had ever been in the post-war period. In the first decade of the twenty-first century it reached 41 per cent. From 1948 to 1982, average compensation in the financial sector ranged between 99 per cent and 108 per cent of the average for all domestic private industries. From 1983, it shot upwards, reaching 181 per cent in 2007. Commenting on these figures, Salmon argues that 'financial services companies are meant to be intermediaries, middlemen' and that 'any time that the middleman is taking 41 per cent of the total profits in what's meant to be a highly competitive industry, there's something very wrong'.[13] Very wrong, indeed!

Consider the growth of the US financial sector in the post-war period over two subperiods: 1947–1980 and post-1980. Between 1947 and 1980, the share of the financial sector rose from 2.5 to 4.4 per cent. Rapid growth of the financial sector started in 1980 and has been sustained since, which is not a coincidence because 1980 was the year marking the advent of wholesale financial deregulation. This trend has continued unabated until the present time. Deregulation, coupled with favouritism by the government, sustained the growth of the financial sector, and this is why the end of the IT bubble early this century did not change the trend.

Deregulation has played a more important role in the growth of the financial sector than economic growth. The nexus between the financial sector and the whole economy is fragile. Economic growth in the 1960s was rather rapid, but seemed to require little financial intermediation. Finance grew quickly in the 1980s while the economy stagnated, and the pattern changed again in the 1990s. Therefore, it is certainly not valid to suggest that a large financial sector is required to sustain economic growth. And even if casual observation reveals that finance is positively correlated with growth, this is simply correlation, not causation (rich countries have large financial sectors relative to GDP, not that more finance raises GDP).

The global financial crisis has intensified the belief that the financial sector is far too big and that it should be reduced in size. For example, Philippon argues that 'what the current financial crisis tells us is that we might not need to spend more than 8 per cent of our economic resources to buy these financial services'.[12] His estimate is that 'the financial sector should be around 7 per cent of GDP if the US remains an innovative, relatively finance-intensive economy'. He makes the justifiably sarcastic remark about the destiny of financial 'engineers', suggesting that 'they could always go back to being engineers'. But many would argue that even at 7 per cent of GDP the financial sector is still too big. In an interview with *Prospect* magazine, Adair Turner, the head of the Financial Services Authority (the former UK regulator abolished by the new coalition government) points out that the UK financial sector has grown too big, that some of its activities are worthless from a social perspective, and that it is destabilising the UK economy. He suggests that 'to stop excessive pay in a swollen financial sector you need to reduce the size of that sector or apply special taxes'.[14]

It is not only the amounts involved that cause concern, it is also the quality of financial services and products that command a tremendous amount of resources for the benefit of the financial sector and its bosses. Just as Turner believes that some financial activities and products are useless from a social perspective, Simon Johnson wonders whether modern finance is more like electricity or junk food. It is more like junk food, Johnson believes. He points out that 'there is growing evidence that the vast majority of what happens in and around modern financial markets is much more like junk food – little nutritional value, bad for your health, and a hard habit to kick'.[9]

A legitimate question is whether or not there is any social value in the products of financial engineering. The very basic ones, yes, but financial engineers have taken things too far, just to boost the size of business for their bosses. We depend on engineers in crucial matters such as the maintenance of, among other things, the planes we use to fly, the power grid, gas pipes, roads, bridges and tunnels. It is engineers who design and execute the production of cars, consumer durables, computers, ships, buildings and every piece of physical capital that we use or see every day. We, therefore, owe our easy life in big part to engineers. I am talking about mechanical, electrical, chemical, structural, civil, control, marine and aeronautical engineers. By contrast, financial engineers invented the collateralised debt obligations and credit default swaps that blew up the world financial system and bankrupted Iceland, a tiny isolated country that is as far as possible from the epicentre of financial engineering. Other kinds of derivatives bankrupted Greece and created a massive crisis in the European Union.

The preceding argument may sound unnecessarily harsh on financial engineers because they initially came up with good inventions. Financial innovation should have come to a halt once the basic products were invented: forward contracts, futures, basic call and put options, and basic kinds of interest rate and currency swaps. These tools, and combinations thereof, are more than adequate for the purpose of hedging and speculation. Futures were invented to circumvent some problems associated with forward contracts, (such as the lack of liquidity). The versatility of options provides the means to hedge against any state of the world as well as contingent exposures. Swaps are adequate for reducing the cost of borrowing and hedging foreign exchange risk exposure. Why on Earth do we need options on futures, futures on options, options on options, futures on options on futures, options on futures on options, and so on and so forth? And why do we need the so-called exotic options? These derivatives serve no meaningful purpose, apart from allowing gamblers to bet on rather complex outcomes.

THE POLITICAL INFLUENCE OF FINANCIAL INSTITUTIONS

Financial institutions and their bosses have become so influential and politically connected that they have been capable of pushing governments for more and more deregulation while demanding (and obtaining) taxpayers' money when things go wrong. Johnson calls this phenomenon a 'quiet coup'.[9] In his speech to the G20 finance ministers in November 2009, the former British Prime Minister, Gordon Brown, argued forcefully for a 'better economic and social contract between financial institutions and the public, based on trust and a just distribution of risks and rewards'. Brown posed the question whether or not the economic and moral relationship between financial institutions and taxpayers is symmetrical and fair, the answer to which is an unequivocal 'no'. He also called for bringing financial institutions 'into closer alignment with the values held by the mainstream majority'. In the 1940s, Winston Churchill inadvertently articulated the best description of the contemporary relation between the financial sector and the society. He said: 'never in the history of conflict has there been so much owed by so many to so few'. Churchill was then referring to the Royal Airforce pilots as the few, but this statement is equally valid for the situation involving the few financiers and the many taxpayers.

One reason why TBTF is an almost exclusive privilege of the financial sector is that financial institutions can and do flex their political muscles, in addition to the image that portrays the financial sector as something special in the economy. This image, which is boosted by group think, conveys the (wrong) message that a flourishing financial sector necessarily means a flourishing economy. Johnson argues that financiers played a central role in creating the global financial crisis, making ever-larger gambles that caused the collapse with the implicit backing of the government.[9] More alarming, he argues, is that 'they [financiers] are now using their influence to prevent precisely the sorts of reforms that are needed and fast, to pull the economy out of its nosedive'. He also points out that 'policy changes that might have forestalled the crisis but would have limited the financial sector's profits – such as Brooksley Born's now-famous attempts to regulate credit-default swaps at the Commodity Futures Trading Commission, in 1998 – were ignored or swept aside'.

Unfortunately, not even the global financial crisis has changed anything. Financiers are still defiant, expecting bailouts and bonuses despite the damage they inflicted on middle-class Planet Earth. They claim victimisation by the society and refuse to admit responsibility for the crisis, blaming it on macroeconomic factors (such as low interest rates) and global imbalances (blame it on China, like everything else). Big financial institutions, it seems, have only gained political strength since the crisis began, exploiting fear of systemic failure to strike favourable deals with the government. Bank of America obtained its second bailout package (in January 2009) after warning the US government that it might not be able to go through with the acquisition of Merrill Lynch, a prospect that Treasury did not want to consider.

The rise of the finance industry to its status of the jewel in the crown of the economy started when Ronald Reagan and Margaret Thatcher came to power and pursued extreme measures of financial deregulation. In the United States, Democratic and Republican administrations alike sustained the trend for more and more deregulation. It is rather alarming that policymakers who are supposed to regulate and supervise financial institutions have nothing but praise for these institutions. Alan Greenspan's views in favour of unregulated financial markets are well known, while his successor, Ben Bernanke, said as recently as 2006 that 'the management of market risk and credit risk has become increasingly sophisticated' and that 'banking organizations of all sizes have made substantial strides over the past two decades in their ability to measure and manage risks'.[15] But, as we know now (and at a very high cost), the proposition that financial institutions have the ability and/or willingness to manage risk properly is ludicrous.

One explanation for the love affair between the US government and the finance industry is the movement of personnel from the financial sector to government and vice versa. Robert Rubin, once the co-chairman of Goldman Sachs, was the Treasury Secretary under Clinton, and later became the chairman of Citigroup's executive committee. Henry Paulson, CEO of Goldman Sachs during the long boom, became Treasury Secretary under George Bush, and in this capacity he initiated the bailout of AIG (arguably to protect the interest of Goldman that had bought a massive amount of credit default swaps from AIG). John Snow, Paulson's predecessor, left the government to become chairman of Cerberus Capital Management, a large private-equity firm that also has Dan Quayle as one of its executives. After leaving the Federal Reserve, Alan Greenspan became a consultant to Pimco, perhaps the biggest player in international bond markets. These movements strengthen ties between the government and the financial sector. Goldman Sachs, in particular, has seen frequent movements of this kind, and it has become a tradition for Goldman's employees to go into public service after they leave the firm, perhaps to return to better positions when they leave the government.

THE ROLE OF ACADEMIA

Academia has certainly played a (dirty) role in creating the rosy image of the finance industry. As mathematical finance gained acceptance by practitioners, finance academics increasingly took positions as consultants or partners at financial institutions. Two Nobel Prize winners, Myron Scholes and Robert Merton, took board seats at the hedge fund LTCM in 1994 and contributed to its crash in 1998. Finance academics gave their seal of approval to finance practices, and proposed the ideas and hypotheses used to justify *laissez faire* finance that has caused the carnage we have witnessed. In a survey of financial economics, *The Economist* made the interesting remark that 'financial economists helped to start the bankers' party, and some joined with gusto'.[16]

Financial economists have put forward the efficient market hypothesis, stipulating that financial prices reflect all available information relevant to values of the underlying assets, which means that the price of an asset converges on its value rather quickly. An Efficient Market Hypothesis (EMH) enthusiast, Michael Jensen, went as far as claiming that 'there is no other proposition in economics which has more solid empirical evidence supporting it than the efficient market hypothesis'.[17] To its benefit, the finance industry interpreted the EMH, with the blessing of academia, to imply that the market is capable of pricing financial assets correctly and that deviations from fundamental values could not persist. The development of financial engineering was propelled by the EMH, as it implies that any complex security is priced correctly through the market mechanism of arbitrage. As a result, financial sector gurus convinced politicians, regulators and investors that what they were doing was in the interest of the economy as they found alternative investment outlets and means of risk management. The global financial crisis has dealt a severe blow, not only to the EMH but to the whole discipline of financial economics.

Academics from other disciplines have contributed to the glorification of the financial sector. Macroeconomists developed the now defunct rational expectations hypothesis and the related ideas and models guiding the kind of macroeconomic policy that favours the financial sector (for example, money supply targeting and easy monetary policy). It is the principles of modern macroeconomics that led central bankers to worry about goods price inflation but not financial asset price inflation. The so-called 'financial econometricians' have been engaged in the kind of work that is irrelevant at best and dangerous at worst. It is these people who have been telling the finance profession that they (econometricians) can construct models that can forecast financial prices and their volatility. The Nobel Prize was awarded to Robert Engle for inventing Autoregressive Conditional Heteroscedasticity (ARCH) models, which can allegedly explain and predict financial volatility. The problem is that there have been more sequels to ARCH than to Jaws, Rocky, Rambo and Die Hard put together. These sequels include Generalised Autoregressive conditional Heteroscedasticity, Exponential Autoregressive conditional Heteroscedasticity and other XARCH, XYARCH where X and Y can be replaced by any letter of the alphabet.

Then came the statisticians and mathematicians who devised some risk models that did nothing but instilling complacency. It is nice to have a model that a financial institution can use to measure its maximum loss with a confidence level of 99.9 per cent, a degree of precision unheard of in physical sciences that are based on controlled lab experiments. Regulators bought this idea to the extent that Basel II, the international accord on capital adequacy, allows banks to determine their regulatory capital on the basis of their own models (thus, putting the inmates in charge of the asylum).[18] Mathematicians (or mathematical economists) provided the abstract models that show every good thing about the financial sector and proved that the worst thing for the economy is for regulation to hamper the working of the financial sector.

ARGUMENTS AGAINST TBTF

It is interesting to note that those who support and oppose regulation argue against TBTF – that is, against the taxpayers' money-supported bailout of faltering financial institutions. Those supporting regulation say that financial institutions should be regulated in any way to avoid having to pay to save a TBTF institution. Those who oppose regulation, including believers in *laissez faire* finance, argue that the TBTF problem is caused by regulation and that if the government steps aside there is always a private-sector solution to the failure of financial institutions (that at the right price those institutions will find a buyer). It is intervention to bailout financial institutions that creates moral hazard of monstrous dimensions. Both parties, I think, are right.

There is only one argument for TBTF, the argument of systemic risk and failure. But there is no support in history for the proposition that the failure of one institution could bring about havoc on the financial system and the economy at large. There are numerous cases of financial institutions that were allowed to fail without significant systemic problems. The resulting losses were shared by a large number of investors and creditors, who would have been making good returns in previous years. Then some managers who had been accumulating huge personal fortunes through parasitic activities would lose their jobs and most likely find others. A failed institution would then disappear because of serious errors of judgements, so what? Is not this a feature of capitalism? Is not this the corporate version of the survival of the fittest? Is this not what Adam Smith believed in? Failure is necessary in a free market as it improves economic efficiency. When a company fails, a more successful company can buy its good assets, releasing them from incompetent management. The same applies to the labour force. It is a hoax to believe that catastrophic systemic losses can result from the failure of a badly managed financial institution.

Numerous arguments can be put forward against government bailout and the TBTF doctrine. The following is a list of these arguments:

- There is no objective way of determining which financial institution is worthy of the TBTF status and therefore government bailout, both pre- and post-failure. The outcome is subjective judgement and the eventual triumph of institutions that have political power.
- The money spent on bailouts can be otherwise spent on the creation of jobs in the productive sectors of the economy.
- TBTF protection boosts rent-seeking unproductive activities and lobbying of government officials.
- TBTF creates moral hazard of a significant magnitude. When the government pours billions of dollars into failed financial institutions deemed TBTF, it implicitly guarantees large financial institutions against failure in the future.
- Bailouts financed by taxpayers' money impose financial burden on future generations. Financing bailouts by printing money may bring about the menace of hyperinflation.
- Bailouts amount to saving a reckless minority at the expense of the prudent majority. The minority and majority in this argument are financiers and the rest of the society, respectively.
- Bailouts hamper market discipline. The doctrine of TBTF has serious consequences for long-term stability. If the financial system is to be stable, individual institutions must be given incentives to make themselves financially strong. Rescuing an institution in difficulties sends out the worst possible signal, as it leads others to think that they, too, will be rescued if they get into difficulties.
- TBTF makes institutions even bigger (hence a vicious circle is unleashed). Government action to protect TBTF institutions is nothing short of the desire to consolidate and prop up massive institutions.
- TBTF boosts the financial sector even further. The TBTF problem has been central to the degeneration and corruption of the financial system over the past three decades. For one thing, TBTF enhances the ability of financial institutions to impose brain drain on the productive sectors of the economy.

DEALING WITH THE MENACE OF TBTF

To start with, forget about the possibility that financial institutions will change their bad habits or indulge in socially responsible self-regulation. To put an end to the TBTF doctrine, we must be brave enough to take measures regarded unorthodox by the prevailing ideology. While the Dodd–Frank Bill of July 2010 goes a long way in the direction of putting an end to the TBTF problem, it does not go far enough.[19] According to many, 'the standard shortcoming of the package of reform is its failure to address the problem of TBTF institutions'.[20]

The unorthodox measures that I am advocating here have been suggested by some politicians, some regulators, some journalists and observers, some economists, and the majority of ordinary people writing in blogs and commenting on current affairs. To rid the world of the TBTF menace, I would summarise these measures as follows:

1. Preventing financial institutions from growing too big. If that does not work, or if it only works to a certain extent, then measures should be taken to make it expensive for them to grow.
2. Imposing the kind of tough regulation that reduces the incidence of failure.

3. If a financial institution is on the verge of failing and the situation is desperate, then it should be allowed to fail. Even better, this institution should be assisted to fail by means of financial euthanasia.

These points are discussed in turn in the following three sections. At the end of the discussion, it is hoped that a conclusion can be reached that TBTF is not God's word that we cannot challenge. The TBTF menace can be dealt with effectively and fairly without favouring the reckless minority over the prudent majority for fear of an imaginary apocalyptic outcome.

CURBING BIG SIZE

The way forward is to create a financial sector consisting of small- to medium-size institutions, which was the model prevailing before the advent of big firms. This idea boils down to enforcing competition policy in financial services. To that end, legislation should be in place to (i) split up existing financial institutions, and (ii) prevent small ones from becoming excessively big.

Splitting up existing oversize financial institutions can be done in a number of ways, starting with the re-privatisation of the financial institutions that are owned in whole or in part by the government as a consequence of bailouts. Ideally, big financial institutions should be sold in medium-size pieces, divided regionally or by type of business. Big financial institutions can be split vertically, by activities or products, and horizontally by a given activity among several independent entities.

Anti-monopoly laws can be used to break up big financial institutions that are still owned by the private sector. Johnson suggests that what is needed is to overhaul anti-monopoly legislation that was put in place more than a 100 years ago to combat industrial monopolies.[9] Then, of course, we can reinstate the Glass–Steagall Act or a modified version thereof. A retrospective implementation of legislation whereby commercial banking is separated from investment banking ensures that existing institutions combining the two functions will be split up and that no merger takes place between a commercial bank and an investment bank.

A related measure involves changing the laws governing the operations of bank holding companies and universal banking. Legislation must be put in place to separate commercial banking from other financial services such as insurance, fund management and brokerage. Regulating mergers and acquisitions is also necessary for this purpose. Lanchester argues that mergers destroy value, as was made vividly evident by the Royal Bank of Scotland, which was once hailed as the king of mergers and acquisitions.[21] According to Lanchester, a major reason for the destruction of the Royal Bank of Scotland was its acquisition of ABN Amro, which had invested heavily in toxic assets. A merger or acquisition should not violate the Glass–Steagall Act, anti-monopoly laws and any law preventing the marriage of commercial banking and other financial services. A proposed merger or acquisition should be approved by regulators only if it does not violate these laws and only after a demonstration by the applicant that the merger/acquisition will produce synergy gains.

Reducing the size of financial institutions has other advantages, as we have seen that big size is not always good. If, for some reason, it is not possible to curb big size, regulators can make it expensive for financial institutions to grow big. We use taxes to regulate externalities, so why not do that to regulate this kind of externality? Taxation in this case could be either actual payment or in terms of capital requirements – that is, making the regulatory capital ratio a function of size.

APPROPRIATE AND EFFECTIVE REGULATION

The regulation of capital through capital adequacy standards is inadequate, as failure during the global financial crisis came from excessive leverage and liquidity shortage. In addition to the regulatory measures implicit in the preceding discussion of how to combat size, regulation should cover leverage, liquidity, derivatives trading, executive pay and taxation. To start with, we should forget about Basel II, as the global financial crisis has exposed its several loopholes. Moosa explains these loopholes in detail and argues that early implementation of the Accord would not have prevented the crisis or reduced its severity.[18]

Free marketeers tend to rule out financial deregulation as a cause of the global financial crisis, putting most of the blame on monetary policy. In a study of the causes of the global financial crisis, Carmassi *et al* argue that lax monetary policy is to blame and argue that many 'alleged' causes are simply symptoms of these policy errors.[22] They put the blame on the abundance of liquidity in world capital markets, fed by large payment imbalances, notably a large and persistent current account deficit in the United States financed by ample flows of capital from emerging and oil-exporting countries. If this is the case, they argue, then the recommended corrective action is remarkably simple: 'there is no need for intrusive regulatory measures constraining non-bank intermediaries and innovative financial instruments'. While I agree with the proposition that lax monetary policy played a big role in igniting the global financial crisis, over-emphasising this role is nothing short of travesty. David Moss argues that 'by focusing attention almost exclusively on government error, it gives the impression that government can't solve any problems'.[23] To allow non-bank financial intermediaries to do what they want while concentrating on commercial banks is a step backwards that should not be envisaged in view of the damage inflicted on all of us by investment banks and hedge funds.

One option suggested for limiting the moral hazard problem created by TBTF protection is that of free banking, a system under which banks are unregulated, and there is no central bank in charge of issuing currency. The work of White, among others, suggests that in a free banking system, banks are highly stable and may be less prone to runs that can bring about their failure.[24] The proponents of free banking suggest that the relatively unregulated banking industries of Scotland, Sweden and Switzerland (before the advent of central banks) provide some historical support for this position. Carmassi *et al* argue that if banks, in the context of such a system, are less prone to failure than they are in the current system, it may be worth investigating free banking as a means of limiting the cost of TBTF protection.[22] While there are some merits in the arguments for free banking, such as the market discipline argument, contemporary bankers typically demand the kind of deregulation that would take them as close as possible to free banking and yet seek TBTF protection when they are in trouble. This is simply double dipping. The fact of the matter is that banks are too important to be left to bankers and that proper regulation, rather than the dismantling of regulation altogether, is more conducive to financial stability.

Tough regulatory measures should cover not only capital requirements but also leverage and liquidity. There are already some encouraging signs from Basel that the Basel II Accord is being revised by introducing provisions to deal with leverage and liquidity. However, there are also disturbing signs that 'bank lobbyists have won their battle to limit the new [liquidity] rules'.[25] Financial 'innovation' should be regulated because many of the financial instruments allegedly used to avoid risk are merely forms of gambling and a means for concealing excessive leverage (the Greek government is one expert on this matter). It would be a good idea to restrict the trading of derivatives to organised exchanges as opposed to over-the-counter markets. Opaque financial products should be outlawed (no more options on options on futures on swaps). Perhaps it is a good idea to create a law enforcement agency that is the financial equivalent of the Drug Enforcement Agency.

As far as executive pay is concerned, Johnson argues that 'caps on executive compensation, while redolent of populism, might help restore the political balance of power and deter the emergence of a new oligarchy'.[9] One advantage of this measure is to curtail the power of the financial sector to inflict brain drain on the rest of the economy. As Johnson puts it, 'Wall Street's main attraction – to the people who work there and to the government officials who were only too happy to bask in its reflected glory – has been the astounding amount of money that could be made'. This is one way to deprive the financial sector of its undeserved status as the jewel in the crown of the economy.

Last, but not the least, a financial transaction tax should be considered. In a speech to the G20 finance ministers in St Andrews (Scotland) on 8 November 2009, Gordon Brown defended the idea of imposing tax on financial transactions, a contemporary version of the Tobin tax. Part of the proceeds, he suggested, could be diverted to a fund run by the IMF to support bank bailout in the future, or diverted to assist growth in developing countries, and part could be used to help the budget deficit. Lord Turner, the head of the abolished FSA, has been arguing on similar lines and for that he was criticised by Boris Johnson, mayor of London, who described Turner as 'crackers' for suggesting taxing the City. But, as Turner and others have repeatedly stressed, the only condition for introducing a financial transaction tax is that everyone does it, so there would be no loss of competitiveness. This again was stressed by Brown: 'Britain would move only if the rest of the world moved too', he said. Even the free marketeers of the IMF are calling for the imposition of special taxes on banks.

ALLOWING MISMANAGED FINANCIAL INSTITUTIONS TO FAIL

Finally, if they have to fail, let it be. In every case of government bailout, a typical argument is put forward that allowing a big institution to fail brings about havoc on the financial sector and the economy as a whole. A doomsday scenario would be used by the management of a failed institution and regulators alike to 'bail out or else'. Some would argue that finance is deeply interconnected, so that even a moderately large player can take down the system if it implodes. Those who argue along these lines would say that it was the failure of Lehman Brothers (not Citi or Bank of America) that 'brought the world to the brink'. This claim is far-fetched because the world came to the brink as a result of the collective malpractice of financiers. Saving Lehman in any shape or form could not have changed the course of the global financial crisis.

Take, for example, AIG whose management claimed that any failure by the government to bail it (or them) out would have 'catastrophic' consequences. I do not believe that it would have been catastrophic (a really big word) to let AIG's partners in derivative transactions (which are mainly buyers of the credit default swaps offered by AIG) to take substantial losses – this is business, is it not? They took a gamble, and it did not work. The alternative to bailout would have been to put AIG into Chapter 11, in which case the creditors (including derivative counterparties) would obtain the company's assets. They would end up with a certain recovery ratio on their claims (say 20 per cent), bearing the losses themselves. They can afford it, and if they cannot then bad luck. Governments do not compensate people for losses incurred in the stock market, so why compensate rich companies (and the rich people who mismanage them) for their gambles? This is like opening loss compensation offices in the casinos of Las Vegas.

Consider now the case of LTCM, which is analysed brilliantly by Dowd.[4] He wonders what might have happened if LTCM had failed, and whether or not the Federal Reserve's fears were plausible. The underlying arguments for bailouts were that (i) financial markets were in a particularly fragile state in September 1998;

(ii) LTCM was a big player that was heavily involved in derivatives trading; and (iii) it had significant exposures to many different counterparties, and many of its positions were difficult and costly to unwind. These were the justifications for why the Fed was nervous about the prospect of LTCM's failing. Dowd, however, argues that financial markets could have absorbed the shock of LTCM's failing without going into the financial meltdown that Federal Reserve officials feared. He supports his argument as follows:

- Although many firms would have taken large hits, the amount of capital in the markets is in the trillions of dollars. It is therefore difficult to see how the markets as a whole could not have absorbed the shock, given their huge size relative to LTCM.
- When firms are forced to liquidate positions in response to a major shock, there are usually other firms willing to buy at the right price. Sellers may have to take a loss to liquidate, but buyers can usually be found (ask Warren Buffet who was willing to buy LTCM at a fair price). Competition for good buys usually puts a floor under sellers' losses.
- Market experience suggests that the failure of even a big derivatives player usually has an impact only on the markets in which that player is very active. Worldwide market liquidity has never been threatened by any such failure.
- Even in those rather extreme and unusual markets where liquidity might be paralysed in the immediate aftermath of a major shock, participants have every reason to resume trading as soon as possible. There is no reason to suppose that the market response would have been much different if LTCM had failed.
- There have been major developments in derivatives risk management over the last few years, which means that most firms' 'true' exposures are now only a small fraction of what they might otherwise appear to be.

In short, history does not provide even circumstantial evidence indicating that the failure of one institution can cause the failure of the whole system. Such a proposition cannot be substantiated by intuition or theoretical reasoning, neither can it be supported by empirical evidence. Good economics tells us that if a firm must fail, we should let it fail.

CONCLUSION

To curtail the influence of financiers and the disproportionate size of the financial sector, TBTF must go. To stop the diversion of scarce resources from productive to parasitic activities, TBTF must go. To curtail rent-seeking unproductive activities, TBTF must go. To minimise the incidence of moral hazard, TBTF must go. To reduce the financial burden on future generations imposed by the malpractices of a small subset of the current generation, TBTF must go. To stop the reverse-Robin Hood transfer of wealth from the hard working majority to the minority of financial elites, TBTF must go. To stop rewarding recklessness, TBTF must go. And to impose market discipline on financial institutions, TBTF must go.

Financial institutions, it seems, are too important to be left to financiers, and this is why regulation should be intensified and deregulation reversed. Governments regulate aspects of our lives all the time. Law enforcement is regulation, and so are traffic lights. Contrary to what we have been led to believe, regulation is not a dirty word, particularly when it is used to the disadvantage of financiers. Anything should be done to get rid of the TBTF doctrine and free people of the politics of fear practiced by financial institutions and the tyranny of financial markets. TBTF is a myth that must go.

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1 This article is a preview of a book by the same title that will be published by Palgrave in November 2010. All of the issues discussed in this article are elaborated on extensively in the book.

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