Credit Crisis Calls for Research in Robust Regulation

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Abstract

The causes and effects of the financial crisis of 2007-2009 have been well publicised, and the contagion from the initial cause of the crisis, rooted deep in the US mortgage market, to almost every aspect of the global economy is profound and continuing at time of writing. The purpose of this report is to discuss research into effective regulation of the finance industry, particularly in light of the financial crisis. The structure is (i) an overview of the financial crisis of 2007-2009 (ii) a discussion of motivations for research in the finance sector, and (iii) some thoughts on how effective research may be directed to prevent a repeat of such a crisis. In conclusion, I propose a thorough and direct mandate to deal with the issue head on.

1 The 2007-2009 Financial Crisis

Financial Intermediation has for many years been a significant component of the economic output of the UK. Figure 1 on page 2 shows the breakdown of the gross value added figures for the UK economy for the period 1992-2007. It is striking how the financial intermediation sector has grown as a percentage of economic output - crossing the 30% mark in 2003, and the

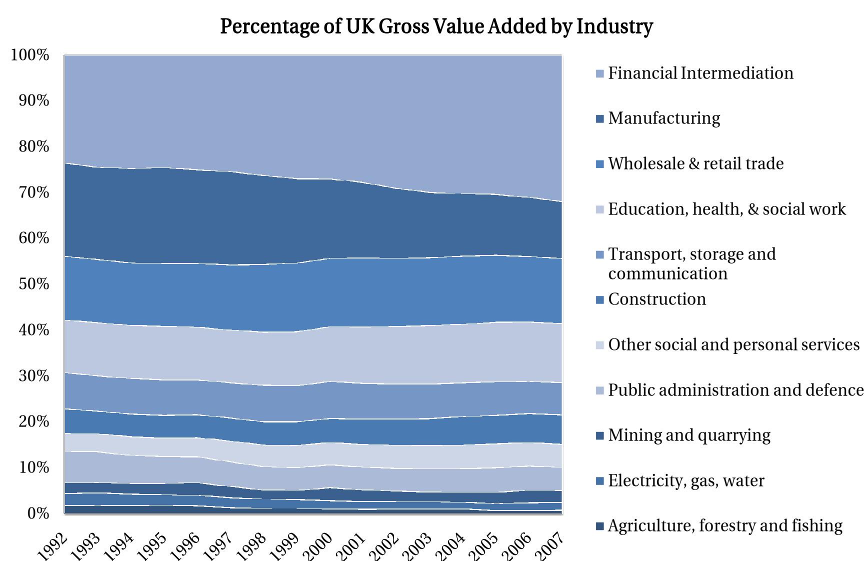

Figure 1: Financial Intermediation proportion of UK economic gross value added (Data source - United Kingdom Office for National Statistics Blue Book 2009[1])

corresponding decline in manufacturing[1]. In the year to March 2009 - at the height of the crisis - the financial services industry contributed some £61.4bn in taxation revenue[2]. It may come as a surprise that this marks the contribution of financial services at some 12% of total tax revenue.

Such figures illustrate just how reliant the United Kingdom economy is on the financial sector. It is clear from Figure 1 that the sector is the largest industry contribution - and inevitably the failure of the industry would be a significant blow for the economy.

The global financial services industry enjoyed a significant boom period through to 2007. During 2007, however, a crisis of confidence occurred, initially in the asset-backed securities market. Asset-backed securities, in particular collateralised debt obligations (CDOs), have been constructed and distributed by the wholesale finance industry on a large scale[3]. Some of the securities, linked to so-called 'sub-prime mortgages', carry risk associated with the ability of homeowners with less-than-optimal credit profiles to repay their mortgages. Investors became concerned that the confidence they had in such homeowners may be misplaced. As a result, the value of the securities plummeted, and as bankers and investors moved to mark their holdings of such

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securities to a reasonable market value, organisations were forced to mark significant losses. In turn, this led to a crisis in confidence between major, hitherto solid, industry players. Large investment banks, such as Bear Stearns and Lehman Brothers, had been major players in the CDO issuance markets and held significant proprietary positions in some of the riskier securities in the CDO spectrum, for their own account. However, it became increasingly difficult for such large organisations to quantify their exposure to the risky securities. Wholesale funding, the mechanism by which those banks with a daily cash surplus lend to those with a daily cash deficit, became fraught: cash-rich organisations were no longer happy to lend their money; the losses in the securities markets may have realistically meant that the borrowing organisation may not have been able to repay it. The cost of wholesale funding soared - and the scarcity of funds further raised the possibility of large-scale corporate default.

The fraught cash position of Lehman Brothers, for example, led to the largest filing for so-called Chapter 11 bankruptcy protection in US corporate history[4]. The ramifications of the problems in the financial sector were broad. Banks throughout the world were suffering record write-downs and reassessing the pricing of risk across their operations. Credit costs to consumers and businesses soared throughout the world, and pushed economies world-wide into recession. Prospective homeowners could not obtain mortgage financing, and house prices dropped for the first time in 12 years (see Figure 2 on page 4). Inflation dropped as consumers pared back spending; policy makers dropped interest rates to compensate. The Bank of England embarked on a programme of 'quantitative easing' - effectively printing money - to encourage inflation, as interest rates had been reduced to a minimum leaving no room for manoeuvre.

Losses across the finance industry led to stock market values falling dramatically, bringing wider equity markets down with them. Squarely in a state of contraction, the UK economy suffered across the board. Thousands have lost their jobs across industries.

Governments across the globe were forced to step in to stem the confidence loss in credit markets. Moreover, the UK government decided to purchase large equity stakes in national banks in order

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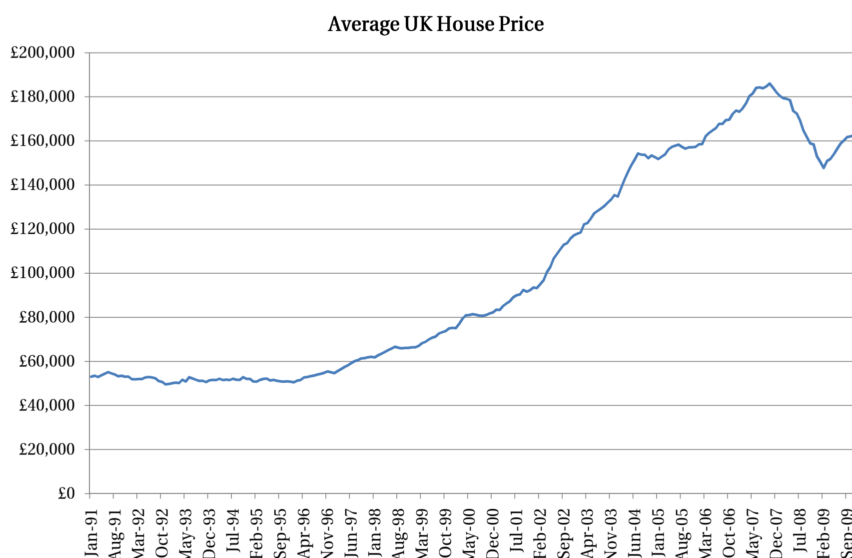

Figure 2: Average UK house prices (Data source - Nationwide[5])

to prevent bankruptcy as large organisations revealed monumental losses: banks such as RBS were considered 'too large to fail' - such a bankruptcy would have meant retail depositors losing money; the ensuing wreckage would inevitably have caused further corporate bankruptcies as organisations reliant on those banks were forced to default in a domino effect.

In the UK, as a result of the various and complex events unfolding as a result of the financial crisis introduced above, the government became a significant shareholder in several financial institutions. It has a controlling stake in RBS, a significant stake in Lloyds Banking Group, and is owner of Northern Rock. Such equity investments, on top of lending obligations of the Bank of England as lender of last resort, mean the government has financial exposure to the banking industry running into the hundreds of billions of pounds[6]. Of course, however, such talk of 'government exposure' is meaningless. The UK government is funded by UK tax payers. The financial industry, then, is effectively underwritten by the tax-paying British public.

There has been significant public backlash against the perceived hubris and 'pocket-lining' culture of major banking industry figures, particularly in light of the taxpayer bailout of the industry. In April 2009, protestors stormed RBS branches in London, as part of protests relating

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to the meeting of G20 government leaders[7]. Sir Fred Goodwin, the notorious Chief Executive of RBS at the time of the crisis, has been publicly vilified[8]. Around the world, there is a significant public movement for humility in and restriction to be placed on the banking industry. In the US, for example, President Barack Obama pithily launched his call for compensation in respect of US taxpayers' implicit underwriting of the industry. Back across the Atlantic, the UK has announced a punitive tax on one-off bonuses in the financial services industry. Discussion of how to regulate the industry in order to prevent a repeat of the crisis continues.

2 Why Research Financial Regulation?

It is clear, then, that the financial industry is key to the British economy, and the economic freefall as a result of the recent crisis serves to demonstrate that regulation to date has been ineffective at preventing the crisis, limiting contagion, or at the very least, insuring a back-stop to the losses and lack of confidence. It is important, now, to consider (i) why crises of this nature need to be avoided, (ii) why the only effective method is through a shakeup of government regulation, and (iii) why research in the field is necessary.

The public have had to invest billions in bailing out the finance industry. Indeed - the exposure, marked at £850 billion at its height[6], equates to more than £13,000 per capita. The media has kept the public at large well aware of the scale of their investment, and the extent of the backlash, as set out above, is evidence of just how much momentum there is to prevent a future crisis of similar nature and magnitude.

More than the sheer weight of public opinion, however, is the tangible and intangible financial loss to the taxpayer, and public purse. The cost is unquantifiable. Consider, for example, that the recession has caused a reduction in tax receipts and a large fiscal deficit. Such a deficit causes government debt to build over the coming years; in order to repay it, future governments

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will be forced to make real-terms cuts in spending on public services - meaning education, hospitals, policing, transport - the list is endless. These cuts will have a real effect on the very same taxpayers that were forced to step in with their financial support in the first instance, further punishing the man on the street for what many see as hubris and greed in the heart of the City of London.

Why is it so difficult to regulate effectively? The problem is inherent in the species. Crises of different sorts, 'boom-and-bust' economics, have occurred for generations. This problem is not a new one. So why hasn't it been solved previously? The answer is, clearly, that it isn't an easy one to solve. That is because what the regulations are attempting to do is to restrict basic human greed. Such human greed is not limited to the bankers and investors: it refers to every man and woman on the Earth. The man in the street who wanted his sub-prime mortgage, but did not have the means to repay it, is as guilty as the bankers who transferred the risk of his mortgage to someone else, who in turn is as guilty for failing to recognise it. Bubbles such as the CDO issuance gravy train occur because it is in our selfish nature to see something positive that serves greed, and to milk it for as much as it can be worth, as soon as possible.

Opportunistic behaviour of this sort - be it from industry players or the man requesting an increased overdraft limit - can only be restricted by effective regulation which must be well-founded in order to be effective. In order for it to be well-founded, it must address the heart of the problem, not the symptom.

The best way to do this is to understand what works and what doesn't; to understand what is the problem, and to separate this from the symptom. Doing that requires understanding fully how the crisis occurred, and - what is more - what motivated it. The final question is how to fix the root cause. Inevitably, developing a full understanding of this is far broader than the scope of this article; it requires a co-ordinated research programme to not only get to grips with the story of the crisis, but to get to grips with the psychology of the cause.

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3 Current Research in Finance

There are researchers out there involved in the field of finance. They do not, however, fill the breach: to understand, it is important to take a look at how the finance industry currently interacts with the academic community, and discuss why the necessary research into effective regulation has not yet taken place. In a nutshell, when funding is available for research under the broad heading of 'finance', such research is undertaken in profit-making enterprise, as is now discussed.

The financial industry has long been an important sector for graduate employment and as a result, there has been a marked rise in numbers of students studying finance-related vocational courses. Interestingly, however, the majority of graduates finding employment in the industry have not studied vocational degree courses[9], which raises the question of whether such courses are relevant and valuable. The fact that the industry does not target such graduates can only reduce the relevancy of such vocational departments.

It is incorrect, though, to say that specific research into financial technology and quantitative analysis does not take place or is not of interest to the banks. Larger investment banks and investment management organisations do specifically target postgraduate students on related courses. Such students, in particular with specialised mathematical and quantitative skills, are of particular interest in derivatives and quantitative decision-making. However, such research is overwhelmingly driven by the need for financial return - serving the greed of the individuals and shareholders.

At a corporate level, research into finance is motivated by return on investment. Large financial organisations have invested in research outfits based at universities, including the Nomura Centre for Mathematical Finance at the University of Oxford[10]. The research that takes place is in the field of quantitative finance - on the basis that the field is highly profitable. The funding provided by industry players is wholly invested in 'the next big-profit machine', and highly

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complex mathematics of opaque derivative products. This is not the psychological and targeted research into regulation that is required. The simple problem is that it is not in the interest of the corporations to fund such research. It can only harm their bottom line - why research the very regulation that makes business so difficult for them in the first place? Competitive advantage and shareholder return are evidenced by increased profitability, not support for red tape and regulation.

Large financial corporations have invested heavily in corporate research departments. However, such departments are focussed on churning out investment reports, equity analyst reviews, and recurring market commentaries. Such departments can only exist while they deliver value-for-money. Perhaps the 'quant' teams in major finance houses may more readily fit into the mould of traditional research outfits. Inevitably, these departments have necessarily focussed on profit-generating strategies to develop competitive advantage, at the expense of research into the broader risks of their corporate activity. Clearly there was insufficient research to indicate that a meltdown the like of which we have seen was imminent.

There is some government funding for finance - but the direction of such research is overwhelmingly influenced by the personal interest of those in a position to do it. Indeed, if funding is available under the heading of finance, it is human nature to spend the money and time investing in a profitable future. The personal interest is in profit generation for personal financial gain, and this leaves scant regard for the tail risk of things going wrong.

Research councils, who make the funding allocations, are motivated by utilitarian return on the research investment, as evidenced by the ever-dwindling public funding for humanities research[11]. Putting aside the potential gain of avoiding future financial crises as argued above, the short-term profit potential serves the bottom line of the research councils' requirement for return on investment more obviously than avoiding unquantifiable and intangible future losses.

Clearly research into effective financial regulation has to date not been deemed important

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enough to warrant the requisite investment, from the industry or the state. For years prior to the crisis the industry has been massively profitable and correspondingly good for the economy; to date the social view is that financial profitability is good for society. The prevailing wisdom told that what was important was researching profitable products, through quantitative analysis and high-tech development. It didn't fit the current ideas of the industry to research the 'what-if' scenarios.

Moreover, whilst there have been financial crises throughout history, a crisis of the magnitude of the recent crisis is unprecedented. Hence it has never been clear to researchers that the research of the type discussed here was necessary: it was not deemed possible for there to be a financial meltdown of the scale we have seen. It was far from the mindsets of decision-makers when it comes to determining what research to pursue; financial collapse of this magnitude was not foreseen, and hence, the research never commissioned.

4 The Future of Finance Research

Now that we *have* witnessed such a large crisis, it may be that things change. However, this seems unlikely in the near future.

There is public desire to prevent a repeat of the financial crisis, evidenced by the backlash as set out above. This has led to governments throughout the world discussing regulation, restriction and compensation by the industry to the taxpayers who bailed them out. Still, however, there seems to be little by way of analysis and understanding of what took place and, more importantly, why. Politicians hunting headlines and re-election focus on short-term sticking plasters and populist intervention. It is difficult to see a paradigm shift in terms of public policy which may lead to the calm assessment of how crises unfold, and the need for research in the field.

On top of this, the global nature of the industry makes it difficult for governments to make

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headway, regardless of the inherent ignorance of public policy. Indeed, suppose the British government were to commission and review how to regulate effectively, and found some reasonable conclusions. If the British government were to go ahead and implement such regulation, the outcome could be that the industry moves to another location - New York, Tokyo, or somewhere new. What is needed is global regulation for the global industry, and this requires co-operation above that which we have today.

There remains little value in the face of the potential researchers for such research. At time of writing, the sector is returning to profitability, and the real prospect of personal financial interest remains more important to individuals than preventing a crisis. It is difficult to apply the utility assessment of such research to the long-term benefit of avoiding loss and recession - far more simple to apply the utility assessment to large end-of-year results figures. The utilitarian approach to valuing such research, in its existing form, remains as ineffective as it ever was.

To summarise, there is no clear link between research council decision-making and the desire for effective regulation, and no impetus for corporations to finance the research themselves.

5 Conclusion

The financial crisis of 2007-2009 is all-too-clear evidence of how failings in the ability of governments worldwide to regulate the industry can lead to real costs for individuals throughout the world. What is needed is real understanding of why such crises occur, and how they may be prevented - or at least, how the potential effect thereof may be reduced. To date, however, research in the field of finance has exclusively been on profit-making exercises - due to the perceived utility of such work, at a research-funding, corporate, and personal level, along with the lack of public policy and social belief in the need for understanding such regulation. Worryingly, given that the worldwide economy is moving towards recovery, it is difficult to see how

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the situation will change. The void between research council decision-making and public policy, which causes the problem of utility assessment of research in the area, remains. On top of that, the short-sighted nature of the public policy itself, means research scope is likely to continue in the classical fashion discussed in this report.

I think it is fair to say that what is needed is a reassessment - right from the top of governments globally - of financial regulation. Firstly, there needs to be a specific mandate for the kind of research that will allow us to properly understand why bubbles start - be it CDOs, dot-coms, or the next big thing. That research needs the right people and the right scope: from the psychology of the problem through to the nitty-gritty of what took place in each profit-taking haemorrhage. The research needs to be broad enough to cross international borders. Then it needs to be specific about how best such crises can be avoided, or limited in their effect.

Without a specific mandate, it is difficult - despite the obvious (albeit, long-term) benefits - to see how such research can take place.

If we can cross the research barrier, then comes the discussion of how, armed with such research, governments across the world can be concerted in their application of it. Herein lies a problem as difficult to surmount as the former - which, like the former, rests for another day.

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