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## **Economics and the Banks**

**Adair Turner** 

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My focus is on economics and the banks or, more generally, economics and the whole financial system. And I want to do three things: first, set out some facts about the rising importance of finance within the economy; second, consider what orthodox economics said about the rising importance of finance before the crisis and how what it said turned out to be completely wrong; and third, discuss to what extent the profound mistakes of modern economics reflected the autonomous development of an intellectual tradition and how far, instead, the explanations lie in power relationships.

# **Rising Financial Intensity**

There have been several studies of the growth in the relative role of finance within modern economies. One by Andy Haldane¹ found that the size of the US financial system grew from about 2.5 % of GDP in 1950 to 8 % of GDP in 2008. Finance got much bigger in our economies. Another important study by Philippon and Reshef asked how much financiers are paid relative to people of an apparently similar skill level in the rest of the economy.² They found that the 1920s, which saw very rapid growth in the relative importance of finance, also saw a large 'excess wage', and they found that that excess wage re-emerged on a very large scale after about the 1980s.

Finance grew very much bigger and it was very well-paid. And we must ask whether that was good for the economy, because finance is different from other sectors. If the restaurant business grew as a proportion of the economy, we would not even ask whether that was good or bad, we would simply say: 'Restaurants have grown in importance because people are choosing to spend an increasing percentage of their income on restaurant meals.' But nobody gets up in the morning and says, 'What will I do today? I think I will buy some financial services for a bit of fun.' Financial services are not forms of end consumption, but perform intermediate functions within the economy. More finance is good if it is making the economy more efficient or more stable, and it is bad if it is making it inefficient and unstable. So, we have to work out what impact it has had.

A key first step is to identify which specific aspects of finance got bigger. A fine study by Robin Greenwood and David Scharfstein of Harvard University helps answer that question.<sup>3</sup> General insurance has grown a little faster than GDP because people's houses are more expensive and they have more things to insure: but there is nothing about the growth of general or life insurance which raises prima facie concerns about stability or efficiency, and insurance has not been a major driver of the dramatic increase in the relative importance of finance within our economies.

<sup>&</sup>lt;sup>1</sup> Haldane (2010).

<sup>&</sup>lt;sup>2</sup> Philippon and Reshef (2012).

<sup>&</sup>lt;sup>3</sup> Greenwood and Scharfstein (2013).

Instead, as Greenwood and Scharfstein illustrate, two developments dominate: one is that the finance industry has, over time, made much more money out of the provision of credit—from net interest margin and from fees on credit facilities; the other is that far more money is now made out of the complex nexus of activities which go to make up broadly defined 'asset management'.

It is not surprising that the industry has made ever more money out of credit provision, because there is far more credit extended to the real economy than there was 50 or 60 years ago. In aggregate for the advanced economies, private sector credit as a percentage of GDP went from 50% in 1950 to 170% by 2008. There is more credit provided to the real economy, and that means a bigger financial services industry to provide that credit.

Part of the growth of asset management, in turn, is simply the flip side of more credit. If there are more debt liabilities in the economy there must be more financial assets and, in some way or another, those assets will be managed. Some of those will be very straightforward bank deposits, but some of them will be, for instance, money market funds, hedge fund assets, corporate bonds, and mortgage securities. There will be a larger quantity of fixed income assets to be managed—and that, along with increased equity market capitalisation, is part of the story of why asset management (in all it multiple forms) has grown.

But the other reason why the sum of all the activities involved in managing assets has grown is that, in addition to the financial system doing more units of activity vis-à-vis the real economy, it does phenomenally more units of activity with itself. For the other striking development of the last 40 years is an explosion of intra-financial system activity. Household debt and corporate debt have grown as percentages of GDP, but the most explosive growth of debt over the last 30 years in the USA has been the debts owed by the financial sector to the financial sector; that is, intra-financial system assets and liabilities.

That reflects, in part, the development of a securitised credit system, in which credit may be not just held on a bank's balance sheet but may be turned into a credit security. It then may be sold to, for instance, a structured investment vehicle (SIV), which issues asset-backed commercial paper, which is bought by a money market mutual fund: or in which

the same bank which had originated and distributed a package of credit securities may, in its trading room, buy them back. As a result, the system came to be built on complicated multi-step chains of credit intermediation: it entailed massively increased trading activity, and its complexity created risks which needed to be managed with derivative contracts—which could also, however, be used to take further yet risky positions.

The dramatic impact of all this on the banking industry can be understood by comparing a major bank balance sheet from the 1960s and one from today. Look at a major bank balance sheet from the 1960s, and even someone with little specialist knowledge of finance could understand it. On the asset side, there were cash, government bonds, and loans to households and corporates; on the liability side, deposits from households or corporates, with a fairly small quantity of inter-bank borrowings as the balancing item. But if you pick up the balance sheet of JP Morgan, Goldman Sachs, RBS or Deutsche Bank today, you will find that over 50% of it arises from a complex set of assets and liabilities, or derivative contracts owed to and from other banks and other financial institutions: RBS dealing with Deutsche Bank, Deutsche Bank with Morgan Stanley, or Goldman Sachs with hedge funds.

This huge complexity is summed up by a diagram which was produced by the New York Federal Reserve shortly after the crisis, in which they attempted to plot out all of the connections in what we call 'the shadow banking system'. The report which included this chart concluded with a recommendation which said that anybody seeking to understand the system should print out the chart out on a piece of paper measuring three foot by four foot—anything smaller and you cannot see what is going on.

# The Pre-crisis Orthodoxy

So, that is what occurred—more credit, more leverage, more fixed income assets to manage, and a huge increase in intra-financial system complexity. What, then, did economics—and public commentary more generally—say about the economic impact of this increasing financial intensity? In terms of rising real economy credit and leverage, it said essentially three things:

The first was that finance theorists gave us a theory of why we need debt instruments as well as equity instruments in our economy. The answer is that contracts which are, to a degree, 'non-state contingent' help overcome the problems of 'costly state verification': if you make an equity investment, you have far less information than the managers of the company about the risks taken and the results received, and the most effective response is therefore often to strike a debt contract which promises you a predefined return not dependent on the results of the underlying real investments.<sup>4</sup> And economic historians, meanwhile, told us that we probably would not have had the industrial revolution if we had tried to finance it all through equity contracts: we needed the possibility of debt contract as well. So, theory and empiricisms together gave us the conclusion seen in meta-studies like Ross Levine's Handbook of Economic Growth (2005), which suggested not only that financial deepening is in general good, but specifically that private sector credit as a percentage of GDP is positively correlated with growth and welfare.5

Second, there was a tendency to assume that, in some general sense, we *needed* strong credit growth in order to achieve adequate consumption growth, nominal demand growth and, thus, economic growth—a belief which therefore saw growth in consumer credit as being as important as business lending. Here, in fairness, we can largely absolve academic economics of support for this proposition, since academic justifications for rising credit intensity always tended to be focused on lending to business. But those academic arguments, perhaps imperfectly understood, appeared to provide justification for more rapid growth in credit than in nominal GDP. And many regulators accepted it as a given that bank capital requirements had to be set low enough to facilitate strong credit growth for home buyers and consumers as much as for business.

The third proposition of pre-crisis economics, by contrast, was that the details of the financial system and the level of leverage in the economy were simply irrelevant to macroeconomic stability considerations such

<sup>&</sup>lt;sup>4</sup>Townsend (1979).

<sup>&</sup>lt;sup>5</sup>Levine (2005).

as cyclical stability and the rate of inflation. So that, if you left the finance rooms of the academy and went down the corridor to the modern macro theorists, you entered a realm in which finance could be considered as an unimportant 'veil' through which the impetus of the interest rate passed to affect price and output in the real economy, but without any need to model the details of the banking or wider financial system. Dynamic stochastic general equilibrium (DSGE) models in which representative agent households and representative agent companies struck contracts could therefore capture all that mattered in macro dynamics without providing an account of the banking system. And a book like Michael Woodford's 700-page *Interest and Prices*, the canonical statement of new Keynesian monetary theory, could consider the determinants of inflation with hardly a bank in sight.<sup>6</sup>

In sum, therefore, finance theory and macro-economics together treated financial deepening and increasing leverage as either strongly positive or simply neutral. And that created an environment where the enormous growth in credit as a percentage of GDP raised no particular concerns. And an environment in which, as long as central banks achieved low and stable inflation through appropriate manipulation of the policy interest rate, neither they nor financial regulators needed to have much interest in the aggregate balance sheets of the financial system.

But that turned out to be completely wrong. It might not have turned out wrong if most credit in our economies does what our textbooks say it does. Most undergraduate textbooks of economics, and indeed most advanced academic papers, if they describe what the banking system does, say something like: 'Banks take money from households and lend it to businesses/entrepreneurs, thus allocating credit between alternative capital investment projects.' But as a description of what banks do, or what securitised credit does, in modern advanced economies, that is just wrong.

About 15% of the credit created by banks and securitised credit markets funds new capital investment by businesses outside the commercial

<sup>&</sup>lt;sup>6</sup>Woodford (2003).

real estate market. The rest funds either consumption or, essentially, a competition between households or commercial real estate investors for the purchase of assets that already exist—and, in particular, real estate assets. Papers by Oscar Jordá, Moritz Schularick, and Alan Taylor have shown that the phenomenon is not UK-specific: across almost all advanced economies, indeed, the credit system has, over the last half-century, become primarily a system to finance the purchase of real estate. And most of the value of real estate, in turn, lies not in the constructed value of the buildings but, rather, in the locationally specific irreproducible land on which it sits.

That reality, in turn, lies at the core of macroeconomic and financial instability in modern economies. For when credit is extended against existing inelastic supply assets, credit and asset prices become linked in powerful Minsky-type cycles in which more credit drives higher prices, which induces increased credit supply and demand. And the fundamental reason why we have faced such a lengthy post-crisis malaise is that we had, first, an extraordinary strong upswing of the cycle, then a Minsky moment of crisis and confidence loss, and we are now stuck in debt deflation of the sort described by Irving Fisher.<sup>8</sup>

Indeed, I want to stress that debt overhang in the real economy has been a far more important reason for our sustained post-crisis recession than the weakness of the banks on which attention is often focused. The fiscal cost of bank rescue and recapitalisation in 2008 turns out, in retrospect, to have been a very small fraction of the economic harm which the crisis wrought. And over the last five years, the empirical evidence is clear that low demand for credit from over-leveraged real economy companies and households has been a far more important driver of inadequate nominal demand than has a lack of supply of credit from impaired banks.

The total cost across all of the advanced economies of bailing out the banks was certainly considerably less than 3% of GDP: but, on average, the advanced economies are 10% or more below the previous trend. The impact of the credit and asset price cycle is massively more important than insolvency and illiquidity within the financial system itself.

<sup>&</sup>lt;sup>7</sup> Jordá, Schularick, and Taylor (2014).

<sup>&</sup>lt;sup>8</sup> Fisher (1933).

So, macroeconomics was completely wrong to suggest that we could ignore aggregate financial system balance sheets and the details of the credit and asset price cycle, as long as inflation stayed low and stable. But what did economics and finance theory say about the second big driver of increasing financial intensity—the rise in intra-financial system complexity?

Here, if anything, it was even clearer that the developments were strongly favourable, treating the complexity of modern finance as clearly beneficial, since it completed more markets and thus brought us closer to the bliss point nirvana of a perfect competitive equilibrium. More trading in more liquid markets delivered improved 'price discovery': derivatives enabled risks to be 'sliced and diced', and distributed into the hands of those best placed to manage them. The Efficient Market Hypothesis proved that financial markets correctly priced future cash flows and allocated capital efficiently. And increasing financial intensity and financial innovation therefore delivered both greater allocative efficiency and greater stability.

Thus, for instance, the IMF's Global Financial Stability Report published in April 2006 reported, with approval, 'the growing recognition that the dispersion of credit risk by banks to a broader and more diverse group of investors has helped make the banking and overall financial system more resilient', and it opined that: 'Improved resilience may be seen in fewer banking failures and more consistent credit provision.' So, we see strong and confident endorsement of increased financial intensity from the bible of financial stability analysis just 15 months before the onset of the biggest financial crisis for 75 years. This was a very strong ideology, an ideology confident that financial markets are inherently efficient and, therefore, that financial deepening and increased complexity is by definition beneficial.

## **Ideology and Interests**

So, how did we get it so wrong? The Queen famously asked the LSE economics faculty why no one saw it coming? The letter sent in reply said that there had been a major collective failure of imagination on behalf

of many apparently clever people. So, was this all just a giant intellectual mistake? And where does 'power' come into the picture?

The rising role of the financial system was facilitated by multiple policy changes, starting with the breakdown of Bretton Woods and the liberalisation of domestic credit markets. Those developments were, of course, linked: to maintain a fixed exchange rate system, you have to regulate the domestic credit system; once you move to floating rates, you can at least choose to liberalise the domestic credit system, and in the UK, for instance, the collapse of Bretton Woods was followed very soon thereafter by the somewhat misnamed Competition and Credit Control Act of 1973 which, in fact, largely got rid of previous constraints on credit creation.

The USA saw the gradual dismantling of the McFadden Act limitations on multi-state banking and of the Glass Steagall separation of commercial and investment banking. In the UK in the 1980s, we saw the 'big bang' reforms which removed previous distinctions between brokers and position-takers in the equity market; and we saw increasing freedoms for mutual building societies to move into wider sets of credit market, and to demutualise and become banks. The precise changes reflected the multiple idiosyncrasies of national starting points. But the overall direction of change was common: in multiple countries, we see regulatory change predicated on the assumption that we should treat finance and credit markets as markets like any other, applying the same free-market approaches which have worked well in, say, the market for restaurants or for automobile manufacture. This was a major change from the philosophy which had marked the previous 30 to 40 years of financial repression, during which finance had been treated as a special case requiring more regulation than appropriate in other sectors of the economy.

Why did those deregulations occur? Were they driven by lobbying or were they driven by an ideology? The answer is, of course, a combination. Many were driven by the argument that they were 'inevitable', given what had already occurred; and that argument certainly had some logic. We got rid of fixed exchange rates in part because capital controls were no longer effective in a world of ever-increasing trade flows and foreign direct investment. And once we had got rid of fixed exchange rates, it seemed there was no point in maintaining any capital controls at all. But

once you get rid of capital controls, there is no point in trying to control domestic credit, because credit can be provided cross-border. So, at all steps in the process there is an argument which goes: 'Given that finance has been partially liberalised, complete liberalisation is inevitable.'

But liberalisation was also driven by overt lobbying. Thus, for instance, the Japanese banks in the early 1980s, finding that their classic role of providing capital investment credit to major Japanese corporates was being taken over by the global bond markets, argued for the relaxation of the constraints that had previously stopped them being real estate lenders. They then celebrated their lobbying success by unleashing the biggest credit and real estate boom the world had ever seen. And, throughout the negotiations on new bank capital requirements—Basel I and Basel II, the banking industry argued for as loose standards as possible, continually reminding the regulators that, if they were constrained from lending, economic growth would, supposedly, slow.

In some well-documented cases the lobbying was direct, overt, and clearly successful. In the late 1990s, for instance, when Brooksley Born, as chairman of the Commodity Futures Trading Commission (CFTC), argued for regulation of the burgeoning derivatives market, she was countered by huge lobbying from the major banks and investment banks, which were making lots of money out of derivatives. So successful were they that Congress passed a moratorium prohibiting her agency from imposing any new regulations on derivatives. And behind the Gramm—Leach—Bliley Act, which got rid of the Glass—Steagall division between commercial banking and investment banking, we can see the direct influence of well-financed lobbying.

But, alongside lobbying, there were other factors at work. And some aspects of liberalisation were driven by beliefs about its beneficial effect which, while in retrospect quite mistaken, were at the time honestly held. The single-most important driver of the growth of the financial system has been the growth in residential mortgage credit; and rapid growth in mortgage credit was seen as a good thing because, it was said, it would help support wider homeownership.

<sup>&</sup>lt;sup>9</sup> Johnson and Kwak (2011).

That focus on credit to support homeownership can, in turn, however, be seen as a highly imperfect and, in retrospect, dangerous response to rising inequality in political cultures unwilling to consider more fundamental answers. As Raghuram Rajan puts it in his book *Fault Lines* (2011), the American response to rising inequality was, 'Let them eat credit.' There was no agreement on whether it was possible and what actions were required to increase skills, productivity, and relative real wages; and the political culture could not accept increased redistribution. But what everybody could agree on—the bankers, the Democrats and Republicans, the left and the right—was that giving people cheap mortgage credit was a good thing.

So, in relation to the growth of real economy credit and leverage, I think we have to recognise a confluence of private industry interests and apparently desirable social objectives.

As for the belief in complete markets and the efficient-market theory, which seemed to justify the rise in intra-financial system complexity, here, I think we need to recognise that alongside interests, a role was also played by what Robert Skidelsky has labelled 'aesthetics'—the attraction of a complete intellectual system underpinned by elegant mathematics. And here, indeed, we should recognise the power of *language*, of the way in which idea systems can be embedded in words which induce reflex reactions and beliefs so intrinsic that people are unaware of how constrained their thinking has become.

Early in my time at the Financial Services Authority (FSA) in October 2008, I was shown for approval a letter which, jointly authored with the UK Treasury, warned the European Commissioner for Financial Services, Michel Barnier, that he should not introduce what is called a 'skin in the game' retention for distributed credit securities. I told the relevant staff experts that I totally disagreed. We faced a crisis produced by excessive credit creation, partly in the form of securitised credit, which originators had sometimes distributed to investors even when they doubted and disparaged the quality of the underlying credit. A 'skin in the game' retention therefore seemed to me rather a good thing. But the staff experts then warned me that interfering with the 'liquidity' of the credit securities markets would stymie new credit extension to the real economy.

What they did not question was whether more credit extension would actually be a good thing.

The support for more liquidity, more innovation, more credit, had become a reflex so automatic that people could not question the implicit assumptions they were making. And having lived through the crisis at the head of a regulatory authority, I am convinced that these reflexive responses, embedded in language and beliefs, play a crucial role. 'Price discovery' sounds really good because surely we want to 'discover' the truth? 'Efficient markets' sound essential, since who does not love 'efficiency'. 'Market transparency' sounds an undoubted good, because 'transparency' feels like a positive word. 'Market completion' must surely be positive because things are better if 'complete'. But all the words together can combine into a belief system in which it becomes impossible to challenge the idea that more liquidity, more trading, and more financial innovation is always limitlessly better.

Part of the problem, indeed, is that people fall in love with total intellectual systems, systems which appear to provide the answer to all problems. If you know that you are in favour of 'complete markets', then when each new specific problem, each new policy choice, comes along, you have a predefined set of criteria to guide your decision-making. And that means that, while there are also interests at work, they are so intermingled with beliefs that people can hardly recognise their effect.

In regulatory authorities, you often have to employ people who have come from the industry, because only they know what really goes on; only they really know how, for instance, a value-at-risk model works and how you assess risk in derivatives contracts. But they will have internalised the assumption of the industry and, of course, the industry assumes that more liquidity in trading credit securities is good—in part, because they truly believe that and, in part, because they are making a great deal of money out of it.

There is, here, a very subtle self-reinforcing combination of self-interest and ideology which makes it is almost impossible to discern which is the chicken and which the egg. It gets defined in a language that defines which thoughts are sound, which thoughts prove you are part of the orthodoxy, and which statements prove you are outside the orthodoxy and therefore unsound. And, if unsound thoughts are squeezed out, we are less able to see the faults in the orthodoxy before disaster strikes.

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