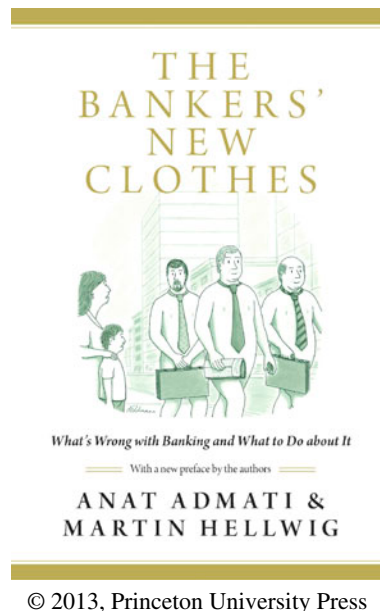


Book review



The Bankers' New Clothes, What's Wrong with Banking and What to Do about It, by Anat Admati and Martin Hellwig, Princeton University Press (2013). Hardback. ISBN 978-0691156842.

The title of this book is of course a play on the title of Hans Christian Anderson's fascinating tale of the confluence of outrageous con artistry with political correctness, *The Emperor's New Clothes*. In the view of the authors of *The Bankers' New Clothes*, the collective response to the (ostensibly) banking-induced financial crisis has the same features. This is neatly expressed by the following quotation from the preface of their book, written in October 2012.

... we were shocked to see press reports and policy recommendations with misleading uses of words, flawed understanding of basic principles, fallacious and misleading arguments, and inadequate uses of mathematical models. Banking experts, including many academics, seemed to believe that banks are so different from all other businesses that the basic principles of economics and finance do not apply to them.

We were not surprised that bankers lobbied in their own interest and said whatever might serve their needs; often their paychecks and bonuses were at stake, and the status quo worked for them. But we were dismayed – and increasingly alarmed – to see that flawed narratives and invalid arguments were not challenged but instead seemed to be winning the debate on both sides of the Atlantic. Reform

efforts seemed to be stalling. Proposals were headed in the wrong direction. Simple opportunities to improve the system were being overlooked.

Arguably the situation has changed little in the meantime. Sheila Bair, Chair of the US Federal Deposit Insurance Corporation (FDIC) through the crisis from 2006 to 2011, said last summer in the *Financial Times* (Bair 2014).

Almost six years after the financial crisis reached its darkest moment, obvious solutions still languish on the drawing board. Promised rules to establish minimum requirements for long term [bank] debt have yet to be proposed. This would provide more stable funding which could be converted into equity to recapitalise a failed bank after restructuring. An international agreement, reached in 2010, to impose higher risk-based capital requirements on systemically important institutions remains to be implemented.

Debate in the UK, sometimes heated, amongst academics, practitioners and policy-makers involves a wide range of views, as, for example, in sessions at last autumn's Systemic (Financial) Risk season at Cambridge's Isaac Newton Institute for Mathematical Sciences and in this year's Financial Regulation Seminar at the London School of Economics.

The two authors of this ambitious work set out to put the situation right with a book written not for experts, but for the educated general reader. They are well qualified to explain banking then and now. Admati is a senior professor of economics at the Stanford Business School and an advisor to the

FDIC and Hellwig is one of Europe's leading economists, research directors and policy advisors at the University of Bonn.

Before delving into the views found within this well written and easily read book, it is worth underlining the risks involved in clearly expressing an opinion on a very complex and controversial topic. Unlike the situation regarding the treatment of banking by Admati and Hellwig, I find myself on the other side of the view put forward by the distinguished author of another book whose title is a play on Anderson's. *The Emperor's New Mind* was published in 1989 by one of Oxford's most distinguished theoretical physicists, Roger Penrose, winner with Stephen Hawking of the Wolf prize for their mathematical work on black holes and related matters and the inventor of the twistor theory of space-time and Penrose tiles. Treating the ancient philosophers' mind-body problem, Penrose expresses the Cartesian view, contrary to the assumption of the 'new mind' artificial intelligence community, that there are some facets of human thinking that can *never* be emulated by a machine. His view is based on postulated quantum effects in the brain. There is a story famous amongst physicists that Einstein once said that his 'little finger' told him that quantum mechanics is incomplete. In the foreword to Penrose's book, Martin Gardner says that the author's 'little finger' is telling him that the human mind is more than a collection of tiny wires and switches. But in the ensuing 25 odd years, neuro-science and computer-science have brought mind and body very much closer together. Even if stochastic quantum computers must eventually replace deterministic Turing-von Neumann computers in the implementation of artificial intelligence, its 'assumption' of no gap between mind and body is actually a hypothesis on which scientific method continues to shed light.

Moreover, the Penrose view that consciousness is a result of quantum-mechanical processes in the brain is grounded on the current quantum theory-based mathematical approach to theoretical physics and cosmology (see e.g. Cox and Forshaw (2011) for a readable contemporary account). This scholastic approach to natural science is currently under serious philosophical attack; see Unger and Smolin (2015) and Appleyard (2015) for a review. Unger and Smolin call for a revolution in physics and cosmology in the spirit of empirical scientific method, which they claim demands the view that the universe is *not* governed by immutable laws but rather, like banking, they evolve over time. Specifically, they propose that observationally there is only *one* universe evolving in time,[†] which is *real*. As a result 'everything in the structure and regularities of nature changes sooner or later' for which mathematics is a tool, 'not the oracle of nature and the prophet of science'. This view puts the understanding of the universe in the same category as that of the evolving market-based global financial system.

Like Unger and Smolin in their book, I formed the view in graduate school at Carnegie- Mellon that the complexity hierarchy of the sciences begins with physics, proceeds through chemistry to life science and on to social science. If you agree with this and believe in Occam's razor, then physics is the

natural *beginning* of scientific enquiry, *not* the end. It follows that without sufficient evidence – which is always incredibly difficult, if not impossible, to obtain in very complex situations – speculation on an open question in social science is even *more* error prone than on one in life science. Of course, both philosophy and mathematics are limited aids to discovery and understanding in these two areas of science which are vital for human progress, but neither tool makes a serious appearance in *The Bankers' New Clothes*.[‡] Instead, the book's prescriptions are based on the authors' observations and their not inconsiderable practical experience.

After a first chapter setting out the background to the financial crisis and governmental response to it, the book is divided into three parts: *Borrowing, Banking and Risk*; *The Case for More Bank Equity*; and *Moving Forward*, consisting of five, five and three chapters, respectively. From the era of Ronald Reagan and Margaret Thatcher up to the global financial crisis it was widely held that financial market participants are rational agents, that financial markets are self-correcting and that government intervention in markets was largely unnecessary. This led to weak enforcement of existing regulations in the US, think Madoff, and 'light touch' regulation in the UK, think Royal Bank of Scotland, and the sea change in global banking behaviour described in Chapter 1, *The Emperors of Banking Have No Clothes*.

In Part I, by means of balance sheets corresponding to the homely example of a simple house mortgage for Kate, it is clearly explained how borrowing magnifies risk, the difference between illiquidity and insolvency of debtors, how this applies to banks and how banking has changed since the Second World War without necessarily improving the situation. The authors put this down to innovation, globalization and interconnectedness, but it is worth remembering that banking was the last major industry to go 'high tech' in the sense of information processing, significant computing resources and model-based decision-making. This trend began in Second World War in the military, was taken up by the oil industry in the 1950s, spread to manufacturing and logistics in the 1960s and 1970s and went even to film-making to produce Star Wars at Lucas Studios. By contrast, the banking industry really only began to follow the trend seriously in the 1980s and reached levels of sophistication comparable to other industries, involving, for example, derivative pricing and risk management, in the late 1990s and early 2000s. In the penultimate chapter of Part I, entitled *Is It Really 'A Wonderful Life'*, the consequences of this evolution for financial services are discussed. In the last chapter, entitled *Banking Dominos*, the subsequent 2007–2009 global crisis is compared to the US savings and loan crisis of the 1980s. Contagion through increased interconnectedness is noted, as are the rise of derivatives (see also Dempster *et al.* 2011) and risk management. Finally, possible resolutions of a failed banking institution are discussed against a background of minimal progress on this issue.

Part II, *The Case for More Bank Equity*, contains the main recommendations of the book and makes the case for much higher levels of bank equity than are required by

[†]A view also held by Penrose (*Discover Magazine* 2009).

[‡]This is not to say that mathematicians or philosophers have avoided the field, to which we will return later.

Basel 3. The titles of its five chapters reveal the argument: *What Can be Done? Is Equity Expensive? Paid to Gamble, Sweet Subsidies, Must Banks Borrow So Much?* Variations on the example of Kate's mortgage funding are employed in its support. Fallacious propositions put forward by Wall Street regarding the relative expense of equity to debt are addressed and attributed to the US tax system, which treats interest payments as tax deductible. The misleading use of the term 'capital' based on book, rather than market, values and including debt liabilities in Basel's Tier 1 capital allowances, is also discussed in the context of the Modigliani-Miller theorem. This proposition states that in an idealized world, without transactions or information costs, funding costs are not affected by the division of funding between equity and debt and determine only who *bears* the risk. The conclusion reached by the authors is that the funding of banks should be radically shifted by regulators in favour of equity to 20% or 30% of banks' balance sheets, although these exact figures are hard to find in the book.

However, I had the privilege of hearing these figures, and the arguments of the book in their support, put in person by Martin Hellwig in a talk entitled *Systemic Risk and Macroprudential Regulation* at the Newton Institute season on Systemic Risk mentioned above (Hellwig 2014). When asked how such figures were reached, he confessed that the exact figure was rather vague and not a matter of science. Rather, the suggested range was a guess based on turn-of-the-twentieth-century banking practice and the prudent reduction in basic leverage† necessary for system stability of current financial institutions. In short, the 'little fingers' of Admati and Hellwig tell them that the equity financing of banks needs to be significantly increased.

In his talk, Hellwig attributed the currently fashionable term 'macroprudential regulation' to Andrew Crockett, former head of the Bank of International Settlements (BIS), who warned in 2000 of the possible macro-economic effects of pre-crisis bank herding that were actually realized in 2007–2009. Hellwig noted that in practice these effects were amplified by Basel II regulation, and that European insurance companies will require more derivative hedging at shorter maturities under Solvency II regulation, which will raise banking counterparties' maturity transformation (borrowing short and lending long) and risk-weighted capital requirements. Similar worries have recently surfaced regarding the herding of high-speed trading algorithms (see e.g. Tett 2014). Hellwig stressed that all correlations in the global financial system are endogenous and dynamic and that this must be reflected in any truly general equilibrium models upon which future regulation is based. Unfortunately, the deliberately hidden nature of these correlations by the financial services industry makes the modelling task difficult. He suggests that both financial modelling and financial regulation should regard three time scales: short, medium and long term, and he notes that unfortunately current and proposed regulations are time-scale independent.

†In terms of the equity to balance sheet total championed by Andrew Haldane, the Chief Economist of the Bank of England, on the grounds of simplicity, and commonly referred to by the misnomer 'leverage ratio' which should of course properly be its inverse, e.g. 5 (to 1) for 20%.

My own view of central bank research efforts in this direction is that while pre-crisis they ignored financial markets in favour of macro-economics, post-crisis they are ignoring macro-economics in favour of financial markets (contagion).

Hellwig also gave an update of the book's proposals for change in his talk. Principal amongst these was the recommendation to establish an independent decision-making body involving all affected parties, at least at the US and EU levels, to monitor financial services systemic effects. Other recommendations included the necessity of real-time global inter-bank transaction circuit breakers, the internationalization of contract and bankruptcy laws (in particular to eliminate asset-backed commercial paper and repos jumping weaker banks' commitments in the bankruptcy queue) and the centralization of the decentralized EU TARGET2 payment process (see also Chadha *et al.* 2011). Hellwig's knowledge of the global derivatives markets was shown to be extensive in his talk and he referred to their products with the delightful term 'manufactured risk', but more on this in the sequel.

The three chapters of Part III, entitled, respectively, *If Not Now When? The Politics of Banking* and *Other Peoples' Money*, précis the main arguments for increasing banks' equity and place the likelihood of achieving this and related reforms in their political economic framework. Governments' interactions with the financial services industry has recently been neatly summarized by Michie (2014).

The trilemma for [post-1945] governments was how to, simultaneously, achieve control, stability and competition within the financial system. ... After 1945, control was the priority and that was achieved at the expense of competition before the 1970s and stability afterwards.

The book concludes as follows.

We can have a financial system that works much better for the economy than the current system – without sacrificing anything. But achieving this requires that politicians and regulators focus on the public interest and carry out the necessary steps. The critical ingredient – still missing – is political will.

With the recent change of the US Congressional control to the Republican Party, the consequent increase in Wall Street influence, and the disarray of an EU facing a Eurozone crisis with Greece, events in the Ukraine and the threat of Islamic terrorists, 'Now' doesn't seem too likely a time for this will to come forward.

I would have liked to have seen a fuller treatment in the book of the provisions of the 1933 Glass-Steagall Act, repealed in 1997, separating commercial and investment banking, and thereby insulating taxpayer-backed deposits from risky investments. A comparison would have been useful of the Glass-Steagall provisions with those of the partial restoration of their separation in forthcoming regulation: the Volcker Rule of the 2010 Dodd-Frank Act in the US, the Vickers ring-fencing in the UK and the Barnier/Liikanen legislation in the EU. Admati's view on official attempts to fix the banking system is that 'Supposed tough reforms are just tweaks to the previous rules that failed spectacularly, maintaining key flaws' (Halligan 2014). There has, however, been no lack of, often starry-eyed, suggestions for

reform by rebuilding trust in bankers and financial services generally. Monk (2014), noting that financial services' share of the US corporate profits have risen from 10% in 1950 to 40% today and that currently 104 of the 400 richest Americans in the Forbes list are in financial services, proposes that the best way to move forward is with a technology assisted more responsible change in the investment strategies of the biggest institutional and private investors. A recent book emanating from an interdisciplinary Oxford seminar, with the catchy title *Capital Failure* (Morris and Vines 2014) contains some interesting ideas for restoring trust in banking, but overall gives the reader the impression of wishful thinking. A related research project by two philosophers at Cambridge and Groningen investigates how rent-seeking can be discouraged and 'Trust me I'm a banker' can 'once again be made good advice' (Cambridge Research Horizons 2014).

More generally, I would have liked to see the book discuss the macro-economics of globalization, in particular, the low rates caused by the US–China trade in the run-up to the crisis. Arnold B. Meltzer, my teacher at Carnegie-Mellon, has said on his blog 'they gave us useful goods and in return we gave them worthless paper'. Due to monetary policy and quantitative easing (QE), very low rates are once again the norm and investors are again desperately seeking higher returns. Credit derivatives were a major cause of the crisis, but now the US Federal Reserve and the Bank of England are pushing banks to buy them again and encouraging their securitization, see Halligan (2014) in which the next crash is mooted.

Perhaps the most important omission of the book is that it ignores the true purpose behind the growth of derivatives whose total notional principal of about \$600 trillion exceeds 10 times current global GDP. This is rent-seeking from the global real economy which I estimate to be currently about \$3 trillion per annum, or 5% of global GDP. This figure represents the latest net mark-to-market for derivative contracts unhedged for credit risk, provided semi-annually by the BIS, which involves contracts strongly in the money for dealers with non-bank firms, governments at all levels and individual investors (Dempster 2014).

Finally, I cannot resist noting that of this book's 398 pages, only 228 contain text, but 107 contain notes. On the one hand, this represents painstaking research by the authors, but on the other, it represents the increasingly popular but deplorable cost-cutting practice of publishers which forces readers to flip back and forth from the text to the notes – if they bother to read them at all. Princeton University Press, as a quality leader to which this book is no exception, please bring back the footnote!

For those concerned by the current progress of post-crisis banking reform, no better recommendation for reading this book can be given than that on its dust jacket by Paul Volcker, Former Chairman of the US Federal Reserve and the US Economic Recovery Board and author of the 'Volcker rule' banning bank proprietary trading in the Dodd-Frank Act.

'The Bankers' New Clothes' explains in plain language why banking reform is still incomplete, contrary to what lobbyists, politicians and even some regulators tell us.

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References

- Appleyard, B., It might be one of the most important books of our time. Review of Ungar and Smolin, *Sunday Times Culture Section*, 4 January, 2015, pp. 30–31.
- Bair, H., 'No more bank bailouts' cannot be an empty slogan. *Financial Times*, 8 August, 2014, p. 11.
- Cambridge Research Horizons, Trust me, I'm a banker, *Research Horizons*, University of Cambridge, October 2014, pp. 6–7.
- Chadha, J.S., Dempster, M.A.H. and Pickford, D., *The Euro in Danger: Reform and Reset*, 2011 (Searching Finance: Cambridge).
- Cox, B. and Forshaw, J., *The Quantum Universe: Everything That Can Happen Does Happen*, 2011 (Cambridge University Press: Cambridge).
- Dempster, M.A.H., The true cost of OTC derivatives. Video of a talk in the INI Systemic Risk Programme, 2014. Available online at: www.newton.ac.uk/event/syr/seminars
- Dempster, M.A.H., Medova, E.A. and Roberts, J., Regulating complex derivatives: Can the opaque be made transparent? *J. Banking Regulation*, 2011, **12**, 308–330.
- Discover Magazine, Discover interview: Roger Penrose says physics is wrong, from string theory to quantum mechanics, 2009. Available online at: www.discovermagazine.com/2009/sep/06-discover-interview-roger-penrose-says-physics-is-wrong-from-string-theory-to-quantum-mechanics
- Halligan, L., Back to the brink: Think we've done enough to avoid another financial crisis? Think again. *The Spectator*, July 2014, **26**, 14–15.
- Hellwig, M., Systemic risk and macroprudential regulation. Video of a talk in the INI Systemic Risk Programme, 2014. Available online at: www.newton.ac.uk/event/syr/workshops
- Michie, R., Financial capitalism. In *The Cambridge History of Capitalism*, Vol. 2, chap. 8, edited by L. Neal and J.G. Williamson, p. 257, 2014 (Cambridge University Press: Cambridge).
- Monk, A., The new dawn of financial capitalism. *Institutional Investor*, September 2014, pp. 74–78, 123–130.
- Morris, N. and Vines, D., *Capital failure: Rebuilding trust in financial services*, 2014 (Oxford University Press: Oxford).
- Penrose, R., *The emperor's new mind: Concerning computers, minds, and the laws of physics*, 1989 (Oxford University Press: Oxford).
- Tett, G., Markets are parched for liquidity despite a flood of cash. *Financial Times*, 17 October, 2014, p. 13.
- Unger, R.M. and Smolin, L., *The singular universe and the reality of time*, 2015 (Cambridge University Press: Cambridge).

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