Financial innovation: good thing, bad thing?

The CSFI at 21
Our 21st anniversary is an opportunity for me to thank the many people who have put the CSFI on the map – and kept it there. Obviously, those who support us financially and with support in-kind. Equally obviously, our Governors and Trustees – notably Sir Brian Pearse, Sir Kit McMahon, Minos Zombanakis and the current Chairman of our Governing Council, Sir Malcolm Williamson. David Lascelles, Jane Fuller and myself and all the rest at CSFI Towers are very grateful.

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Preface

We started well… Our first publication (a proposal for funding the social security net in post-Soviet Russia) was co-written by an American billionaire and Ed Balls – who was, at the time, just another FT hack. Our second (perhaps more contentious) covered the many benefits that financial derivatives might bring to the retail client – but then, as David Lascelles says in his extremely readable canter through the last 21 years, derivatives had a good name at that time. Not now.

I wonder what we got right, and what we got wrong.

Because there isn’t a definitive list of all the round-tables and working groups that we put together in the first couple of years (who knew we would keep plodding away for 21 years?), it isn’t easy to say where we were smart and where we were dumb. But, from the 120 (or so) reports that we have published since 1993, I would pick out a dozen as positively perspicacious:

- “The IBM dollar”, by Edward de Bono (yes, that one), published in March 1994. Way before Bitcoin or even the unlamentedbeenz, our own lateral thinker was suggesting that IBM’s credit might be just as good as Britain’s. Well, maybe he got the company wrong, but the idea is still just as relevant; for IBM, read Apple.

- “EMU Stage III: The issues for banks”, published in May 1995, in which Malcolm Levitt warned that UK banks were greatly underestimating the regulatory tsunami that Maastricht was about to unleash. Too true.

- “Twin Peaks: A regulatory structure for the new century”, by Michael Taylor (subsequently very grand at the FSB and now at Moody’s in Singapore, but then just an academic at the University of the East London Bus Shelter), which we published in December 1995. HM Treasury and the BofE would have saved themselves a lot of grief if they had just done as Michael told them. Instead, they insisted on lumping prudential and conduct of business regulation together for a decade or so.
- “The Crash of 2003: An EMU fairy tale”, published in December 1996, in which my robustly realist colleague, David Lascelles, painted an all-too plausible picture of a dysfunctional euro slowly strangling the European economy. He just got the date (and the main players) wrong…

- “Credit where credit is due: Bringing microfinance into the mainstream”, by Peter Montagnon, which we published in February 1998. This was a bandwagon we hopped on to well ahead of the crowd – and then started to have questions about, again before mainstream opinion had turned.

- “Psychology and the City: Applications to trading, dealing and investment analysis”, published in April 1999. My cousin, Denis Hilton (now teaching at Toulouse II), was one of the very first social psychologists to point out all the many biases to which the City is heir – and how we might be able to nudge it back into line.

- “Quant and Mammon” – another paper by David Lascelles, also published in April 1999. This destroyed the illusion that the nice folk in the City are just bursting to fund innovative academic research: they ain’t.

- “Regulation of the non-life insurance industry: Why is it so damn difficult?”, by Shirley Beglinger, which we published in November 2004. It was (as far as I know) the first paper to argue persuasively that insurance is not like banking – and cannot be regulated as such. (We are still banging on about this, and indeed have just published another report by Paul Wright on the subject.)

- “Not waving but drowning”, by Antony Elliott, which we published in March 2005 and which led directly to the Fairbanking Foundation.

- “Narrow banking: The reform of banking regulation”, by John Kay, published in September 2009. Well, it hasn’t happened – yet. But the increasingly insupportable burden of regulation suggests radical structural reform of the banking system should not be off the table. (And we were pitching it first.)

- “Getting Brussels right: Best practice for the City”, published in December 2010, was another heartfelt plea by Malcolm Levitt – this time, for UK financial firms to take the EU behemoth seriously. Still, I am afraid, a work in progress.
“Seeds of change: Emerging sources of finance for Britain’s SMEs”, by Andy Davis, published in July 2012. Andy found 48 internet platforms seeking to disintermediate the banks. There are more now – and the threat to the banks is becoming ever-clearer.

And then, of course, there are our three Banana Skins series – banking, insurance and (oddly enough) microfinance. I don’t think anyone involved would claim much predictive power (at least, for the first two), but they are a unique snapshot of where paranoia stands at any given time. And (for those who believe in the power of money) there was Tim Congdon’s paper on “How to stop the recession”, published in 2009. This time, a few people did listen.

Perhaps the cleverest thing the CSFI ever did, at least in its early years, was to set up eight working groups, looking at the impact of the Internet on financial services. What’s so clever about that? Well, we set the groups up in mid-1996, and published a hefty book in early 1997. Yes, we got some things wrong; for instance, we bet on set-top boxes, not mobile phones. But, for the most part, it is all there – from regulation to cybercrime, with retail banking, personal finance, payments and insurance right behind. (I remember writing the Introduction before I had ever, personally, accessed the Internet.)

But, you may say, did we spot the financial crisis?

I wish I could say Yes. But the best I can do is probably Yes and No. Like others, we were seduced by the Great Moderation. Indeed, we published a plea for less intrusive regulation (“Principles in practice: An antidote to regulatory prescription”) just before all hell broke loose in June 2007. But, if you look at the round-tables we held ahead of the crisis, we may seem a little bit more prescient. In particular:

- we were worrying about VaR as early as February 2001, thanks to Jon Danielsson (and, thanks to the current Deputy Comptroller of the Currency, Charles Taylor, were offering an alternative by December 2002);
- we were worrying about commission-based remuneration by February 2002;
- by December 2002, we were concerned that “capitalism without owners will fail”, thanks to the evergreen Bob Monks;
by October 2004, John Calverly was warning us about bubbles;
by September 2005, everyone was warning us about the adverse impact of MiFID;
worries about credit derivatives first showed up in March 2006;
Henry Kaufman and John Plender were warning us about “euphoria and disequilibrium in the markets” as early as May 2006;
Sir John Gieve was warning of impending financial instability by July 2006;
we were expressing proper scepticism about the proposed hook-up between Barclays and ABN by April 2007 (Sir Fred, were you listening?);
we were concerned about algorithmic trading by May 2007;
Alastair Clark and Peter Warburton were warning of a liquidity/credit crunch in September 2007…

… and then it all starts to come thick and fast. Northern Rock, the mortgage market, TBTF, the future of securitisation, and (in June 2008) our first visit from the über-gloomster, Prof. Roubini.

That said, I do think we (like almost everyone) were too sanguine about financial markets – but we have tried to make up for it since, particularly as far as structural reform is concerned. Perhaps surprisingly, the strongest voices in favour of radical steps have come from the past – particularly the amuse-bouche of views from financial leaders of the 80s and 90s, collected in our “Grumpy Old Bankers” report. It is well worth re-reading.

What are our concerns now?

Well, looking at round-tables we have held over the last couple of years, the warning flags seem to be:

- the potential concentration of risk in the financial plumbing (which Peter Norman has been banging on about from late 2011);
- rising inequality, which we first covered (with Prof John Hills) in May 2012, and have looked at in many forms since then;
- the growing problem (particularly in the context of US extraterritoriality) of financial privacy, FATCA et al, which we have been worried about at least since September 2012;

- cyber-threats (though we may be a bit more cynical about the security establishment’s motives than some);

- the massive escalation in the cost of compliance and regulation – now coupled with increasingly burdensome fines – and the impact it will have on financial firms and their ability to do what society demands;

- the temptation for regulators to bash the insurers just as hard as the banks, and to ignore the very real differences in business models; and

- the coming problem of collateral management.

Of course, our title would suggest we should look at financial innovation – and (as David Lascelles points out) we have probably done too little of that, and focussed too much on regulation. But we did spot the Internet early, we did look at gambling sites, we did boost ETFs… we do our best, on very limited resources. We are immensely grateful to all our sponsors – of our 21st anniversary in particular and of the CSFI in general. I often joke that our motto should be “We bite the hands that feed us”. But we don’t really: what we try to do is both reflect what the City is thinking, and help to steer the debate about where it is going. Either inside or outside Europe.

Andrew Hilton
Director
CSFI
Financial innovation: good thing, bad thing?

By David Lascelles

Here’s food for thought. When the CSFI started up 21 years ago, financial innovation was almost universally considered to be a very good thing. Change in all its forms – technological, structural, cultural, regulatory – was welcomed, encouraged, even politically promoted in order to ginger up an industry which many people thought too complacent. Such a statement could not be made about public attitudes towards financial innovation today. What happened?

It’s worth casting an eye back to the state of innovation in the spring of 1993 when the CSFI opened its doors. The very fact that we gave ourselves the name says that we believed we were riding a wave of change. And so, obviously, did our sponsors who included most of the leading members of the financial services sector, as well as the Bank of England, HM Treasury and IFC. On the retail side, plastic cards (already more than 20 years old) were becoming electronic wallets, the proliferation of cash machines and telephone banking presaged the death of the bank branch, competition was opening up nicely with building societies transforming themselves into banks. On the investment banking side, Big Bang in 1986 had broken open the Stock Exchange monopoly and produced an explosion of growth in the City. In the markets, new fangled financial derivatives were allowing people and businesses to protect themselves against adverse market movements. Investment, insurance and banking seemed to be merging and becoming one.
Financial innovation has worked in three ways: (a) it has connected banking, insurance and capital markets, enabling delivery of products aiming at higher performance of investments and savings; (b) it has facilitated higher levels of debt; and (c) it has made explicit different types of risk, previously embedded in bundled products, enabling the segmenting and re-packaging of risks with multiple ways of distributing them to different classes of investors.

All this could not happen without accidents. We have done away with nuclear energy for fear of accidents; we may yet do away with civil liberties for fear of terrorism. There is nothing in democracies to stop us doing away with financial innovation, but societies that live in fear, decline in fear – sometimes gently, sometimes less so.

Rudi Bogni
Asset manager and former banker

And more was on the way. At the big end, the internet was looming, but was little understood. Indeed, one of the CSFI’s first publications was a thick report called The Internet and financial services which, to the Centre’s credit, identified many of the issues which soon came to dominate debate: delivery channels, competition, non-bank entry, security and the fate of physical banking – and how to keep all this safe. On the investment banking side, risk became the talking point: how to price it, manage it, make money out of it by structuring deals. Culturally, bankers were shaking off their utility mentality and recasting themselves as growth seekers and value creators. Deregulation was opening up the industry to market forces and newcomers: supermarkets, Virgin-style start-ups, even car manufacturers like VW. At the small end, microfinance was providing new ways to get financial services out to the unbanked poor.

Change was also afoot in regulation. The increasing size and complexity of the industry led countries to redesign their supervisory institutions to provide a one-stop shop and introduce disciplined regimes based on rules and enforcement rather than fatherly supervision.

But though the tide of change was clearly running with increasing speed, few of us really anticipated the tsunami that it eventually became, and the disrepute into which it would plunge innovation. Unfortunately, that is the case today. After the tumultuous events of the last few years, financial innovation has come to be viewed not with eager eyes but with fear and
suspicion. If anything, the innovation that people now look for is something that puts the tide into reverse, that sweeps banking back to a more perfect world where waistcoated bank managers in High Street branches made wise lending decisions, and the worst the City got up to was spending too long at the lunch table.

This turnabout prompts many difficult questions about the nature and desirability of innovation in the finance sector. Is it, at the end of the day, a good thing which makes the world a better place, or does it end up destroying the very wealth it creates? Is there something particular about the financial services sector which makes innovation especially difficult to manage? Is it even possible for financial innovation to thrive in the very constricting political and regulatory environment where it now finds itself?

Innovation in terms of further development is important. It would be a sad and stagnant world were this not so in the sciences, medicine, even in the humanities. Similarly for financial services. Has innovation been wholly beneficial? No. Has it been misused? Probably. Has it caused harm? Yes. Should it be banned? Certainly not even if that were practicable. It has been the way that innovation (itself) has been misused (culture?) rather than innovation that is the problem.

Sir Win Bischoff
Chairman, Financial Reporting Council

Innovation: a good thing

Paul Volcker’s famous dictum about the ATM has been much quoted recently. What he actually said (at an event in London in 2009) was: “How many other innovations can you tell me of that have been as important to the individual as the automatic teller machine, which is more of a mechanical innovation than a financial one? I have found very little evidence that vast amounts of innovation in financial markets in recent years have had a visible effect on the productivity of the economy. Maybe you can show me that I am wrong.”

This is a very provocative statement, but it does strike at the heart of the issue. Volcker is right about the enormous amount of innovation that has taken place; but is he right about its questionable value? Let us consider some of the more important changes that we have seen.
Innovation in finance usually indicates just another way of undertaking financial transactions. It is not innovation itself, but the purpose to which we, as humans, put it that determines whether it is used for good or ill. This argument shows the likely uselessness of having a regulatory committee decide whether some innovation should be allowed to proceed, or not. Usually, at the outset, it is the beneficial uses of the innovation that will be documented most clearly. Only later will potential misuse become apparent. Had sub-prime, CDS, securitisation, etc., been put before a vetting committee at the outset, my guess that in all cases they would have been approved.

Charles Goodhart
Professor Emeritus of Banking and Finance, London School of Economics

On the High Street banking side, technology has been the most visible part, but it is only the outward sign of deeper changes. Thanks to the transition to electronic banking, access to financial services is now almost unimpeded for the inhabitants of advanced economies, and must rank as an innovation of great economic and social importance. The cultural transition from a cartelised, secretive, we-know-best industry to one that feels challenged has brought a greater amount of change in one generation than in the entire previous history of banking; in fact, it amounts to transformation rather than just change. On the investment banking side, the proliferation of new products and globalised markets has created opportunities for users and providers of capital that simply could not have been imagined a generation ago. This has had its spillover into the retail side where derivatives have permitted the creation of new products such as flexible mortgages and variable annuities.

Another important area of innovation has been payment systems. Like household plumbing, these tend to go on under the floorboards and are best left to the experts. But dramatic advances are now taking place in the field of electronic transfers which will add greatly to the efficiency of the financial system. It is also an area of considerable innovation: M-PESA (the Kenyan mobile phone based system), Paypal, ApplePay, even Bitcoin.
It is not just ATMs which have proved of value but the whole payments system, which has proceeded by a long series of innovations, often in little steps – reaching the point that retail payments can be made cross-border at a fraction of the cost and time which would have been involved only a few years ago. M-PESA, in its current small payments form, has enabled all kinds of economic activity in the middle of the desert or the jungle which would have been unthinkable only a decade ago. Whether M-PESA will become dangerous if other services get added on, eg savings products or retirement contributions, as has been mooted, is another question. Here it is more likely to be the case that technology, while risk-neutral in itself, can enable risks to be taken which themselves are dangerous.

David Green  
Consultant and former regulator

It is true, as some have said, that innovation in finance is not about doing something completely novel, like inventing the aeroplane, but finding new ways of doing old things, like lending money or paying bills. I'm not sure that this affects the debate, though if anything it should make innovation safer because it means that innovation takes place in a known context with defined objectives.

I wish there was solid evidence to support the contention that all this has had a positive “visible effect on the productivity of the economy”. Alas there isn’t, though it must surely be the case that greater access to financial services, more efficient delivery and broader opportunity are of immense social and economic benefit.

It’s only relatively recently that the nature of the products and services that we are accessing using computers began to change. I love my Barclays iPhone app and I use it all the time. But the account that I’m accessing is essentially the same account that I was accessing in 1997, with the important exception of the connection to the Faster Payments Service (which was driven by the regulators, not the banks or the technologists).

Dave Birch  
Consult Hyperion
Innovation: a bad thing

Unfortunately, that’s only the upside. The downside is that the process seems worryingly prone to getting out of hand.

On the retail side, the emergence of a growth-driven managerial culture in banks has produced many unwelcome – even disastrous – results. One is the depersonalisation of banking relationships: automated services, credit scoring, remote call centres, target-driven sales practices have all stripped out the restraining hand of our waistcoated friend of yore. The quality of lending decisions has undoubtedly declined through loss of the personal touch, meaning that too many loans go to the wrong people and not enough to the right people. Even ethically-driven microfinance faces a crisis because the dynamics of the industry favoured excessive lending. Consumer overindebtedness, overblown housing markets and cash-strapped SMEs – all politically charged concerns – are the consequence.

On the wholesale or investment banking side, the excesses have largely to do with the fact that products which were originally designed for the benefit of customers came to be sold indiscriminately to achieve sales and bonus targets, or were turned into speculative instruments and taken on to the banks’ own balance sheets where they ended up destroying their creators. Some people would also say that the multi-billion dollar mergers and acquisitions engineered by investment bankers produced more benefit for the banks than the shareholders.

The challenge for the financial services industry is that innovation has been driven by the economic return to the designers, rather than the value to its customers. This characteristic has been a significant contributor to the loss of trust in the industry.

Sir Hector Sants
Former chief executive
Financial Services Authority

Any wealth that was created in the banking industry by the drive for “shareholder value” (again, much welcomed at the time) must have been wiped out by the massive losses and regulatory fines we have seen in the last two years, and in the loss of public confidence. More widely, the cost of the recession into which the financial crisis tipped the world economy must
be set against – and probably outweighs – the economic benefits delivered by innovation over many years before. We should also take account of the “running cost” risks in a highly automated banking system: computer malfunctions, security breaches and fraud to name but the most obvious. These are terrifyingly high, with the ever-present possibility that a major incident could wreak havoc with the world’s financial system.

A further consideration is what innovation has not delivered.

High on the list must be structural change. It is striking how similar banking structures are from one country to another: domination by a small band of giants, and across the decades: the big banks that stand at the top of world markets today are mostly the same ones we knew 20 years ago, just with slightly different nameplates. Despite all the opportunities created by technology and deregulation, new entrants have not succeeded in shaking up the established order – in fact most of them have either been absorbed or simply disappeared. Fashions for structural change (like bancassurance and universal banking) have come – and mostly gone. This probably says more about the strength of the incumbents and the interests that protect them, than about the lack of innovative effort, and it does not bode well for the structural change that UK banking policy is currently trying to encourage. (Actually, there is an interesting argument which says that crisis is much more effective at bringing about structural change than innovation, though unfortunately it tends to lead to concentration rather than diversification).

Financial innovation is a fine thing, but it carries risk. So we should be wary of combining too much of it with the “too big to fail” problem. Large institutions are not only bad at innovation but allowing them to practise it untrammelled can backfire, risking economic loss not growth. We saw this clearly in the crisis when an excellent innovation, namely securitisation, was allowed to run amok. What makes the sector stronger is allowing innovative companies to compete with each other, with some failing and some succeeding. Those that succeed will help create diversity and greater stability in the system as a whole, while providing greater value to customers – and, hence, economic growth.

**Giles Andrews**  
Co-founder and CEO, Zopa
Another item for the “not delivered” list (though this is more partisan) is SME finance. The lack of credit for small and medium sized business has been an issue for decades, particularly in the UK – and not for want of innovation. But it never seems to go away. Banks have come up with countless programmes to help small businesses, and novel developments such as crowd funding and P2P lending are multiplying as we watch. A recent CSFI paper on the subject identified no fewer than 48 sources of non-bank finance for SMEs. Yet still companies complain that they can't obtain funding, and politicians take up the cry with their attacks on banks. But the failure here may have less to do with a lack of innovation than with poor understanding of the problem: the reality is that small companies need investors, not lenders.

There has been a great deal of interesting innovation in SME finance over the past few years, particularly the creation of online funding markets that enable small loans (and equity investments) to be syndicated very cost-effectively, albeit without professional due diligence. However, the growth of the alternative lenders has frequently been held back by the fact that virtually every SME has a pre-existing relationship with a bank and has in many cases therefore already pledged all its available assets as collateral to the bank. ... Innovation has yet to come up with a solution to the incumbency of the banks in this area.

Andy Davis
Author, Seeds of Change

Even though one is forced to conclude from all of this that the net benefit of financial innovation may be negative, does that mean that it is inherently a worthless thing, or “merely” that it needs to be handled better? I consulted widely for people’s views when writing this paper, and there is clearly a consensus that innovation is a good thing, indeed a necessary thing if finance is to flourish as we all believe it must, and that the real task ahead is not to discourage it, but to find ways of directing it down productive rather than destructive channels.

1. Seeds of Change: Emerging sources of non-bank funding for Britain’s SMEs. By Andy Davis. CSFI July 2012
Innovation milestones

The history of financial innovation is both about change and reaction to change. Some of the major milestones include:

**Automated teller machine.** The ultimate “good thing” in financial innovation?

**Banking:**
- **Telephone banking.** Earliest example of remote banking which bypassed the traditional High Street branch. Never achieved its full potential because of the subsequent arrival of online banking.
- **Online banking.** Now firmly established as the basis for retail banking, internet technology has also facilitated innovations outside the banking sector – see peer-to-peer lending. But online banking is also the ultimate form of banking depersonalisation. As such it has triggered demands for a return to physical branches and personal contact to raise the quality of banking relationships.
- **Mobile banking.** Prime example is M-PESA in Kenya, which enables customers to make small payments directly over a mobile phone. Hugely successful and, as yet, showing little downside. The puzzle is why it has taken so long to take off – but banks are now offering a variety of services that can be accessed via mobile devices.
- **Bancassurance.** The merging of banking and insurance to create synergies. Despite early excitement, this has not caught on in a big way. It has also been the cause of mis-selling of insurance products by banks.
- **Universal banking.** The merging of commercial and investment banking to produce synergies. Financial deregulation in the 1980s and 1990s opened the way to a wave of mergers many of which had disastrous results because of incompatibilities. Although many combinations exist, it is no longer a widely accepted business model. There have also been regulatory moves to separate commercial and investment banking through “ring-fencing”.

**Credit cards.** Launched in their modern form (in the US) by Diners Club in the 1950s, credit cards opened up access to credit for a new generation of bank customers, but have also been the cause of high consumer indebtedness.

**Credit scoring.** Introduced in the 1960s, credit scoring automated lending decisions and reduced costs, but took personal judgment out of the process. A major factor in the depersonalisation of banking.

**Exchange-traded funds (ETFs).** They comprise, or track, a basket of assets, such as an equity index, and they trade on exchanges. This has been one of the biggest steps towards the democratisation of access to diversified, low-cost portfolios. With the likes of Vanguard and BlackRock behind them, the asset class has grown to £2.8 trillion and is a hive of innovation. They also provide the means for innovative personal wealth managers, such as Nutmeg, to construct a menu of portfolios to suit different risk appetites (which owes something to behavioural finance, too).

**Financial derivatives.** A huge area that includes futures, options, swaps, forward contracts and credit default swaps. These allow borrowers, lenders and dealers to lock in prices and protect themselves against adverse movements. This protection adds stability to financial dealings but has also led to speculative trading, which has had the opposite effect. Derivatives are now being swept well and truly into the regulatory net, particularly via central clearing and settlement – new sources of systemic risk, anyone?

**Insurance.** Innovation in insurance has followed a similar path to banking on the delivery front: a move to direct sales. On the non-life side, new techniques such as catastrophe bonds have created instruments which allow investors to gain direct exposure to insurance risk. On the life side, innovative savings products with guaranteed returns have brought providers heavy losses, prompting design of new products offering variable returns.
Islamic finance. This is obviously as old as the hills. However, the market for sharia-compliant securities has been growing fast outside Muslim countries. The UK government in June this year became the first in the western world to tap the sukuk market by selling a £200m Islamic bond. It was followed by Hong Kong, South Africa and Luxembourg.

Microfinance. A movement launched on the Indian sub-continent in the 1970s to lend small amounts of money to micro-entrepreneurs and lift them out of poverty. Hugely successful and much favoured by international aid donors for its "bottom up" approach to development, it now suffers from excess capacity and a reputation for unscrupulous practices.

Nudge theory. This was popularised by Richard Thaler and Cass Sunstein in their 2008 book ‘Nudge: Improving Decisions About Health, Wealth, and Happiness’. It offers a practical way to incorporate behavioural finance (thanks, Kahneman/Tversky) into public policy. Auto-enrolment into pension saving schemes is one of the offshoots.

Payments:
- Electronic money transfers—Chaps, Bacs etc—have steadily replaced paper-based systems, creating large improvements in efficiency and the emergence of innovative systems like PayPal and Apple Pay. However, this process has not been helped by bank resistance to change, new forms of digital money have also emerged, including cryptocurrencies such as Bitcoin.
- Contactless cards and smartphones that double as wallets (e.g., Apple’s iPhone 6)—and can scan barcodes—offer a new layer of convenience and security to paperless payments.
- Digital currencies, which are not regulated by governments, have also emerged, including virtual currencies like Bitcoin and newer forms like Amazon Coins.

Payments: Digital money.
- For cross-border purposes, politically driven standardisation has helped: the Single Euro Payments Area (Sepa) was finalised in August this year.
- On a more micro level, the business of currency exchange and Transfer is being disintermediated (taken away from banks) by nimble specialists, such as Smart Currency Exchange, Currencyfair, and a P2P version called MyCurrencyTransfer.com.

Peer-to-peer (P2P) lenders.
- These have sprung up as alternatives to relying on banks for loans. The likes of Zopa cater to individuals and Funding Circle to small businesses, using an electronic auction-based system to connect borrowers and lenders. Coupled with crowd funding, which extends the idea to an equity stake in just plain transactions, these initiatives are turning thousands of people into "angel" investors—let's hope they don't get burnt.

Social impact investing.
- The twist here is that the funder’s priority is as much to support a good cause as to seek a proper risk-adjusted return. Social Stock Exchanges—the Brazilian was a pioneer about a decade ago—have been launched in several countries, including the UK, US and South Africa, to support these "social bonds".

Structured finance.
- Complex transactions based on the packaging and securitisation of debt instruments such as mortgages and credit card receivables. They facilitate the pricing and transfer of risk. Again, they should add to financial stability by making risk more explicit, but their complexity has caused them to be abused and oversold.

Syndicated loans.
- An invention of the 1970s, these permitted banks to group together to advance very large loans to prime borrowers such as sovereigns and international corporations. Like many successful financial innovations, they got out of hand and precipitated the Third World debt crisis. They still exist, though in a more restrained form.

Regulation.
- As a postscript, it is worth remembering that innovation in regulation has advanced in parallel with financial innovation. Regulatory consolidation (the “one stop shop”) was an early development to move towards universal banking and bancassurance. In the UK, this has been driven by the Financial Services Authority. New techniques have included risk-based regulation, macro-prudential regulation, and measures to cover the growing "shadow banking" sector, which has emerged in reaction to the weight of regulation in the mainstream sector. Our further financial innovation...
Uneasy bedfellows

As we address this challenge, one of the hardest questions concerns the relationship between finance and innovation. It is clearly a difficult one because it throws up regular crises, more so than other innovation-driven industries such as telecoms and pharmaceuticals. There seem to be a number of reasons for this.

The most fundamental is the tension between the need for banking to be both safe and progressive. The nerve centre of our financial system must be totally sound, but also capable of evolving. This is not an easy state to be in, and it makes it difficult for banks to have coherent innovation strategies, particularly when the political wind swings between safety and progress.

There are two banking industries – the money center institutions who deal with rated customers and sell to investors, and the more traditional banks. There are also two flavors of innovation: product and delivery. There has been too little delivery innovation, and the industry risks being disintermediated by the digital players. There has been much innovation on the product front in the money centers, which has probably led to a weakening of the industry.

It is hard to tease out the benefits of this innovation. It should be found in the cost of capital or the investment returns for issuers or buyers. But the economic background overwhelms the effect. The market is in the process of finding a healthy equilibrium...we only need a few simple rules (capital, leverage and counterparty limits), and the adjustment can follow a healthy path.

John Reed
Former president and CEO, Citigroup

Another is that the banks themselves are in two minds about the value of innovation. Although conservative by nature (though whether out of prudence or fear that change will undermine their privileges is debatable) it is striking how eagerly they seize opportunities created by deregulation. Think of Competition and Credit Control in the early 1970s which was supposed to lift stifling post-war banking controls and ended up precipitating the secondary banking crisis as banks threw open their balance sheets to all and sundry. Think also of Big Bang which created a bloodbath of losses by banks who bought heavily into the securities business without truly understanding
it. Banks do not have a sure touch when it comes to innovation. They hum and ha, and then often all move at once. This means that the risks in innovation get concentrated: there is not enough strategy diversity to spread them. True, there have been many successes, but the mental confusion I am trying to describe must surely lie behind their many failures and the dangers that accompany them.

The same is true of what one might loosely call “the authorities”: government, politicians and the regulators. It has been especially clear in the post-crisis period that these authorities collectively don’t know where to strike the balance between restraint and encouragement. They want the banks to advance, to come up with new things, to fund economic recovery, but under tighter rules than existed before. This can't work.

You can't stop financial innovation because you can't stop technological development. The internet and other key innovations still have a huge impact to make on Western finance – we have only seen the start. Efforts by the authorities to impose some world order they think more appropriate will fail, as inefficient and eventually ineffective.

Michael Foot
Global Vice-chairman, Promontory UK

A further consideration is the role played by the economic cycle in driving both the amount and type of innovation that takes place, particularly in the design of products. In a period of high interest rates, banks design products which reduce the cost of finance, like offset mortgage accounts or interest rate swaps. In a period of low interest rates, they come up with products which promise higher yields or protect against a rise in interest rates. We are still in such a period now, and it may be no coincidence that the recent crisis originated in the Great Moderation when the quest for greater yields than were available in the regular market was at its height. Which phase of the cycle is the more productive or destructive in terms of the innovation it generates? Hard to say, but many would argue that the quest for yield was a very powerful force which got out of hand.

2. There is a striking exception to this. When Barclays launched the UK’s first credit card, Barclaycard in 1966, it took six years for the other clearing banks to follow suit with Access in 1972. It will never work, they said.
Overlying all this is the fact that failure in innovation is much more likely to have bad consequences in finance than, for example, in manufacturing or hi-tech because of the crucial position occupied by banks, and the risk of chain reactions. Unlike telecoms or pharmaceuticals, financial risk impinges on people's lives all of the time. Also, the dangers may not immediately be obvious. If a car's wheels fall off, people know it pretty quickly. It could be some time before a badly structured derivative deal explodes. It is a fair conclusion from all of this, I believe, that finance and innovation make uneasy bedfellows.

I don't see innovation per se as the problem: you can't put genies like derivatives back in the bottle. Smart minds should be able to find ways of channelling financial innovation into helping solve some of the problems facing the modern world. The problem, if there is one, is the lack of a balance of power between buyers (or their proxies) and sellers, and our collective failure to articulate what society wants and needs from financial markets, and to design regulatory systems accordingly.

Christine Farnish
Independent regulatory and consumer policy commentator

Will it work?

If the disbenefits of innovation lie more in its handling than in its quality, its prospects must lie in the way it is implemented and regulated, and that means governance, regulation and national policy.

Enough has been said about the failings of governance during the financial crisis: weak boards, failure to understand the risks, headstrong executives, stock market pressure to deliver results, and sheer greed. These permitted the balance between risk and prudence to tilt too far towards risk. On the regulatory side, many people have criticised deregulation and the desire to keep a “light touch”. I'm not sure they are right because the CSFI's own soundings in this area – our annual Banana Skins risk surveys – have persistently shown that over-regulation is a high level concern among bankers as well as close observers of the financial scene3. The failure, I believe, lay more in the poor management of regulatory institutions. National policy has, on the whole, tried

3. Regulation has ranked as a Top Ten risk in every survey since 2002.
to stay aloof from the minutiae of banking management and regulation. But all this is changing very fast. Banking statutes and regulations are now being beefed up at a rate not seen since the Great Depression, and extended to cover adjacent areas such as hedge funds and non-bank lending. The heavy hand of Brussels is also reaching across The Channel. But will this work, in the sense of making banking safer and healthier, and better-placed to deliver innovation?

Since innovation will and should continue, I suggest that it must fall upon the shoulders of the supervisors/regulators to protect the financial institutions from themselves. The profit motive, the stock price and competition drove otherwise sensible institutions to the brink. This will always happen in an open and competitive society unless there is a non-competitive brake to slow down misuse.

John Heimann
Former US Comptroller of the Currency

My contention is that it will not. There is an interplay at work between the three areas mentioned – governance, regulation and policy – which is weakening rather than strengthening the sense of responsibility for banking prudence. This can be summed up by asking the simple question: who is really in charge? Consider for a moment the areas of banking that are now covered by regulation: balance sheets, liquidity, products, marketing policies, boards, senior appointments, remuneration policies, risk management, conduct of business, expansion plans and corporate structure – to name only those that spring immediately to mind. Is it any surprise that the first question a board member asks when confronted with a proposal is: what does the regulator say? A sense of complete responsibility is absent. Key decisions are effectively taken by the regulator.

Yet ask the regulator where responsibility lies and he/she will say that banks remain fully responsible for their decisions. While this might be true in theory, in the real world both sides are passing a buck which will eventually fall down the crack between them. And when a disaster occurs, does anyone truly believe that banks will be allowed to fail? In the meantime, the toughening up of regulation is driving true risk-taking and innovation out of the banking system into ill-lit districts of the economy. This is not a sustainable situation. The healthy solution must be to restore a genuine sense of responsibility to the banks themselves, and this will only happen when regulation is reduced rather than increased. That is not on the cards.
This is a pessimistic conclusion. It suggests that we shall have a boring banking system in which the regulator calls the shots, with less innovation. Many people will welcome this because it puts greedy bankers in their place, and reduces risk. But is it really what is best? The innovation process is infinite, but even today's finite agenda is pretty hefty. Apart from the much desired changes in structure and competition, there are big questions over how the process of financial intermediation will pan out under evolving IT and communication technologies. Can banks survive in their present form? What will happen to threatened industries, like traditional life insurance? Who will end up owning the payments system? We should hope that public attitudes to financial innovation are a pendulum which will eventually swing back to where it was in 1993.

David Lascelles is co-founder and senior fellow of the CSFI
The governance saga

The CSFI's 21 years have coincided with an explosion in regulation of corporate governance – including executive pay, auditing and risk management – and pensions.


Although the regulatory production line has been busy ever since, no fundamentally new concept has been added to the issues Cadbury tackled – and his "comply or explain" approach has also remained intact. So, the apparent innovations fall into the category of fresh attempts to solve old problems.

Many scandals have been attributed to the concentration of power at the top of companies. Cadbury advocated the splitting of the chairman and chief executive roles and a strong non-executive element on boards. Hampel (1998) pushed the idea of a senior independent director and Higgs (2003) said the majority of directors should be independent non-executives.

Many words have been expended on the definition of "independence" – a measure of how difficult it is to create the necessary level of challenge in the boardroom.

The executive pay arena has seen hyperactivity on the regulatory front. Greenbury (1995) limited the length of contracts to one year and set in stone a couple of principles: pay for performance and alignment of directors' interests with those of shareholders. Since the financial crisis, Walker (2009) and the FSA code have instituted the deferral of bonuses for up to five years – with "malus" (performance adjustment) and clawback potential – and raised the share-based proportion. The UK government has forced votes on pay policy. The debate has now turned to actual – persistently high – amounts, focusing on the growing gap between top and average pay. The missing innovation here is a "just say no" approach from both boards and shareholders to the absolute amounts.

On the auditing front, the UK followed the US in insisting on audit committees made up of non-executives. Post-Enron the biggest audit firms spun off their consultancy arms – only to grow them again. Arthur Andersen's demise left big company audits concentrated in the hands of the Big Four firms, which has caused much hand-wringing but no effective remedy. Recent moves by the FRC, the UK's Competition Commission and the EU have at least led to more regular tendering of audit contracts.
Perhaps more interesting in terms of innovation is the advent of meaningful reports from both audit committees and auditors. The latter, in particular, have experimented with actually telling shareholders what lies behind their judgments on the client company’s more sensitive calculations.

The financial crisis focused attention on risk management. Walker said that boards should have risk committees; the Financial Stability Board’s Enhanced Disclosure Task Force did what it says on the tin. Cue more than 100 pages of risk reporting in certain banks’ annual reports. The International Accounting Standards Board has laboured for six years to turn IAS 39 into IFRS 9, complete with “expected” (rather than incurred) loan losses; Basel 2 has become Basel 3, with lots of tinkering to capital requirements based on risk-weighted assets but timidity on gross leverage, which compares equity (truly loss-absorbing capital) with total assets.

In a UK-specific initiative, the Sharman inquiry (2012) into “Going Concern and Liquidity Risks” has proved surprisingly difficult to implement. The FRC is now proposing that directors provide a longer-term financial viability statement, as well as describing principal risks and mitigating action. The idea is to get them to look out over the whole business cycle in stating that they have a reasonable expectation (watered down from “high degree of confidence”) that the company will be able to meet its obligations.

A final area of governance concern has been the dialogue between investors and management. Again, the issue is an old one. The latest attempt to tackle it is a Stewardship Code, under the aegis of the FRC. About 300 organisations (including many based outside the UK) have signed up to it, which indicates the awkward context – fragmented share ownership, diluting shareholder power. (But do they really know better how to run a company?) Another awkward fact is that UK pension funds – the idealised “long-term” and “engaged” holders of UK company shares – own less than 5 per cent of the UK market.

Which brings us back, briefly, to pensions. The past two decades in the UK have seen a ratcheting-up of funding requirements and benefits protection, including the creation of the Pension Protection Fund. In a context of increased longevity and falling interest rates, the hardening of promises and regulatory requirements have made defined benefit schemes too big a liability for most employers to stomach. This has created the conditions for three big innovations: a non-means-tested state pension, on which personal savings can be built; auto-enrolment into work-based, defined contribution pension funds, which focus on building up a pension pot with no retirement income guarantee; and freedom for individuals to draw money out of their pots, rather than having to buy annuities. Now, that does sound like a revolution.

Jane Fuller
Financial World

The CSFI produces Financial World is for ifs University College. The aim is to bring together the best commentators, economists and journalists from around the world to write authoritatively for students, bank practitioners and for the markets more widely.

It will not surprise anyone that the past few years have brought more ‘innovation’ to financial services than did the last two decades. Just as importantly, wider attitudes have shifted. Bob Diamond, the then CEO of Barclays, might have told MPs in January 2011 that “the time for remorse was over”, but, as he discovered, the time for politicians to deal briskly with banks caught up in the Libor scandal was not.

The outrage over the extent of just how ‘innovative’ banks had been in rigging the markets – and the issue of what they might do to regain public trust – has, unsurprisingly, been one of the most important topics for the magazine over the past few years.

In February this year, for example, “Financial World” examined bank manipulation of the Libor and forex markets and the changing regulatory attitude to the presence of banks in the commodities business. Since then, all three of these areas have undergone profound change. Not all outrage over bank misconduct is necessarily productive, however, and in a year when the drumbeat for regulatory change has grown ever louder, “Financial World” has been a small voice pointing out that more regulation is not, by any means, necessarily better regulation. It has also taken a close look at thinking in Brussels, with Graham Bishop’s regular column on European financial affairs, examining how the more wonkish aspects of European regulation can sometimes have unexpected consequences on the ground. Commentators based in Europe, such as Prof Marcel Fratzscher, president of the German Institute for Economic Research, have written in “FW” about the important issues that they see looming. In Prof Fratzscher’s case, he spoke out about the dangers of Eurozone deflation back in May.

Though financial services prides itself on being driven by numbers, it is, in its way, an ecosystem where any novelty can kill some species of activity (step forward, annuities) and make others bloom (take a bow, compliance). What, however, will actually happen in practice is not always easy to predict. A number of recent articles show the delicate interconnections: Prof Charles Goodhart, a former chief advisor to the Bank of England, writing on the future of UK banking (not as bleak as you
might think), also pointed to regulatory uncertainty and to technological change; Atif Mian and Amir Sufi, professors at Princeton and Chicago Booth respectively, examined on how house prices affect household spending (all as bleak as you imagine); and Max Bazerman professor of business administration at the Harvard Business School, pointed out how managers can fail to spot poor behaviour – leading not just to failure within their own institution, but to far greater problems.

Ouida Taaffe
Editor
Appendix

Financial innovation – a review of the literature:

Financial pioneers have been around since the dawn of history – from the first recorded loans 3,000 years ago in Mesopotamia to China’s early experiment with a paper currency in the 11th century. But the pace of innovation has been particularly frantic in recent decades.

For instance, money market funds emerged from humble beginnings in Brazil in 1968 to become a $4 trillion global asset class by 2008. Vanguard Group, which developed the now ubiquitous index tracker, grew from a 1970s start-up to become the world’s largest mutual fund company. A system of consumer credit scoring has ensured that loans can now often be granted in a matter of seconds, while credit default swaps – the much maligned instruments that enabled American insurer AIG to gamble its way to insolvency – still allow investors to insure themselves against the risk that debtors will fail to meet their obligations.

Yet, since the sub-prime crisis of 2007, financial invention has come under heavy fire, both from the public and from academics. Nobel-prize winning economist Paul Krugman wrote in the year of the meltdown that the words “financial innovation” should “strike fear into investors’ hearts”. While conceding that he did not want to go back to the days before the ATM, the Princeton professor complained that the recent alphabet soup of CDOs and SIVs were “sold on false pretenses”. “They were promoted as ways to spread risk, making investment safer. What they did instead — aside from making their creators a lot of money, which they didn’t have to repay when it all went bust — was to spread confusion, luring investors into taking on more risk than they realised.” In another salvo at the industry, Krugman contended that it was “hard to think of any major recent financial innovation that actually aided society, as opposed to being new, improved ways to blow bubbles, evade regulations and implement de facto Ponzi schemes.”

A similarly “glass-half-empty” vision of financial pioneers was taken by Bruno Biais, Jean-Charles Rochet and Paul Woolley in a 2010 paper entitled “Innovations, rents and risks”. These academics (well, Paul Woolley is a practitioner-turned-academic) concluded that financial leaps forward have a tendency to increase the chance of market meltdowns, or as they put it, “innovation waves raise the risk of endogenous crises”. Drawing partly on the experience of the post-Lehman turbulence, the paper points out that it takes time for new methods and techniques to be fully comprehended. What
is more, “it is difficult for outsiders to understand and monitor managers’ actions and therefore there is a moral hazard”. The initial success of such novelties is generally followed by “an increase in the complexity of jobs and the magnitude of rents in the financial sector”. A series of successful years will then draw in more funds, leading ultimately to a “decline in the investors’ net return from these investments”.

That conclusion chimed with the seminal 2008 paper by Thomas Philippon and Ariell Reshef on “Wages and Human Capital in the U.S. Financial Industry: 1909-2006”. The duo concluded that, during the 1920s and 1990s, a surge of financial innovation was coupled with an increase in the complexity of jobs and a boost to financial sector pay. A reduction of financial regulation allowed this process to continue uninhibited. One nefarious consequence was that a larger share of society’s precious human capital was drawn into finance, which offered unfairly high rewards. Their analysis suggested that wages in finance “were excessively high around 1930 and from the mid 1990s until 2006”, and that “for the recent period … rents accounted for 30 per cent to 50 per cent of the wage differential between the financial sector and the rest of the private sector”.

One recent innovation that has come in for particular criticism has been securitisation. A 2008 paper by Antje Berndt and Anurag Gupta, entitled “Moral Hazard and Adverse Selection in the Originate-to-Distribute Model of Bank Credit”, arrived at the worrying conclusion that over the previous two decades borrowers whose loans were sold onto the secondary market under-performed other bank borrowers by between eight and 14 per cent on a risk-adjusted basis over the three years following the sale of the loan.

But while academics have been willing to point out the limitations, dangers and potential iniquities of financial innovation, they have not been blind to its benefits. In addition, many inhabitants of academia have accepted that even products that have at one stage been harmful, such as CDOs or securitizations, can be tamed and made socially useful if properly regulated.

A balanced overview of the literature by Josh Lerner and Peter Tufano, “The consequences of financial innovation: a counterfactual research agenda”, released in 2011, underlines that new banking techniques “have the potential to affect the entire economic system and can lead to far-reaching changes”. Furthermore, “financial innovations enable firms to raise capital in larger amounts and at a lower cost than they could otherwise and in some cases (for instance, biotechnology start-ups) to obtain financing that they would otherwise simply be unable to raise”.


Equally measured is Robert Litan’s overview of recent financial innovations published by the Brookings Institution in 2010: “In defence of much, but not all, financial innovation”. Litan scores the full gamut of financial techniques, from the ATM machine and the adjustable rate mortgage to hedge funds and CDOs, on their ability to improve convenience for investors and savers, increase access to services and boost productivity and GDP. A few, such as the adjustable rate mortgage, are judged by Litan to have harmed economic growth, despite improving lending access. Some, such as the hedge fund, fail to score many positive ticks. But overall, Litan sees more positives than negatives. Credit default swaps, for example, score positively on all measures.

Burton Malkiel, emeritus Professor at Princeton, has made a particularly strong case for the benefits to retail investors of the index tracker, a product he helped pioneer at Vanguard. In a 2013 paper on “Asset Management Fees and the Growth of Finance”, Malkiel draws attention to the money-saving potential of these passively run and highly diversified investments. “Passive portfolios that bought and held all the stocks in a broad-based market index [between 1980 and 2011] substantially outperformed the average active manager throughout the entire period”, he shows. In 2011, for example, index trackers beat 81 per cent of fund managers investing in S&P 500 stocks.

“The major inefficiency in financial markets today involves the market for investment advice, and poses the question of why investors continue to pay fees for asset management services that are so high”, he argues. “It is hard to think of any other service that is priced at such a high proportion of value.”

The triumphs of innovation suggest that policy makers would be unwise to indiscriminately clamp down on financial progress, says Litan. “Society would benefit from even more financial innovation in the future that would help cushion individuals or firms from certain financial risks to which they are now exposed but can do little or nothing about”, he says. “Our policy environment should not discourage such constructive innovation, but rather should encourage it.”

He added, however, that “policymakers must do a much better job than they have in the past of stopping destructive innovation and the misuse of constructive innovation, either or both of which can lead to future financial bubbles that expose the economy to financial crises”.

When responding to the fallout from the 2008 financial crisis, then, politicians should avoid throwing out the baby with the bathwater.
The Centre for the Study of Financial Innovation is a non-profit think-tank, established in 1993 to look at future developments in the international financial field – particularly from the point of view of practitioners. Its goals include identifying new areas of business, flagging areas of danger and provoking a debate about key financial issues. The Centre has no ideological brief, beyond a belief in open markets.

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