

**“Trends in Financial Innovation and their Welfare Impact: An Overview”**  
**by Franklin Allen**

**Comments by W R White**

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**1. Introductory Comments**

Franklin Allen addresses an important topic in this paper. Should the process of continual financial innovation be welcomed or not? He is admirably even handed in pointing out innovations that actually seem to have reduced human welfare, along with reference to many innovations that have increased it. He concludes, quite conservatively that “On balance, it seems likely its (financial innovation) effects have been positive rather than negative”. As a counterweight to the criticisms now prevalent about the merits of financial innovation, his conclusion is surely helpful. Above all, do not throw out the baby with the bath water.

Nevertheless, what remains missing from his microeconomic analysis (innovation by innovation) is a sense of systemic risks, and how these might have been affected by the process of financial innovation. Combinations of differences in starting positions, existing degrees of deregulation, and levels of financial sophistication, could all change the effects of further innovations. Indeed, they could even change the sign of their effect on welfare. Increased complexity, for example, can not only mislead investors but can also turn stable systems into unstable systems. Put another way, the introduction of new instruments and financial processes into repressed systems might improve welfare up to a point, but then decrease it after. Paul Volker has made the further point that complexity impedes effective crisis management. If regulators have no idea of the full implications of winding a firm down, they are much more likely to forebear.

Complexity then adds, inadvertently, to a safety net that many believe has already grown too wide.

This is not intended to be a criticism of the Franklin paper, since our common understanding of systemic vulnerabilities in financial systems is currently so limited. I make the observation only to support a more general position. Our understanding of how both economies and financial systems work is grossly inadequate. The models currently used by academics, central banks and others rely for their tractability on simplifying assumptions that are simply not plausible. The current crisis, which much accepted theory says could not have happened, makes this all too clear.

One implication of this inadequacy is that we should perhaps rely less on evaluations and policy prescriptions thought to be welfare maximizing. Rather, it might be better if all forms of prospective action, whether private sector innovations or public policy, were evaluated more in terms of the possible risks they posed – a mini-max strategy. To paraphrase John Maynard Keynes:

“if economists behaved more like doctors who had pledged to do no harm “that would be a splendid thing”.

## **2. The Dark Side of Financial Innovation**

In Section 2 of the paper, Franklin refers to academic work documenting how complexity seems to have been purposefully introduced into products in order to mislead consumers. While he notes the associated overpricing of the product in question was considerably reduced after 2005, it would have been interesting to know why. Did market forces eventually reassert themselves or were regulatory influences in play? This difference matters.

It also bears noting that there are a whole host of other reasons to believe financial innovations might have a dark side, though in each case it is hard to be definitive. Franklin notes that innovation is often used to avoid taxes and regulation. Think of the gradual demise of the rules preventing interstate banking in the United States or the rules preventing the establishment of foreign banks in Canada. Was this a good thing or a bad thing? I suppose it depends on the merits of the rules in the first place.

However, what is crystal clear is that this kind of reaction to regulation will never go away. The economy and the financial sector are increasingly viewed as a complex, adaptive system sharing many of its characteristics with other such systems. Not least, competing agents are always testing the limits of what is possible. We may well be seeing this in action today as banks look for innovative ways to avoid the implications of calls for higher and better capital.

Another example would be innovations designed to improve risk management; think of value at risk calculations and stress tests. Here the dark side is that the innovations promise more risk reduction than they can actually deliver. For example, VaR's calculated with short data sets, and data drawn primarily from periods of "great moderation" are almost bound to deceive. Similarly, stress tests that take no account of the possibility of contagion miss much of what is important. The danger this poses is often referred to as the "seat belt problem", where the sense of being well managed encourages ever more risky behavior. I think we have seen a lot of this over the last decade.

Perhaps even more pernicious, Ragu Rajhan contends that many new instruments were consciously designed to repackage risks, so that a reasonable probability of a mildly costly event would be replaced by a much smaller possibility of a very costly event. Since most of humanity suffers from what psychologists call "disaster myopia", this effectively made the risks disappear. Similarly, new instruments were developed for extracting homeowner equity as house prices rose. Evidently, those encouraging the refinancing (while pocketing their fees), said nothing about the risks of an increased debt burden nor the possibility that house prices might actually fall. Nor did they (or policymakers) say anything about the fundamental fallacy underlying the refinancing; namely, that rising house prices provided for a higher standard of living. Whatever a house might cost, one still had to pay to live in a house.

Finally, as Franklin stresses, many financial innovations were designed to allow the full development of new technologies; the canal, the railway, information technology and biochemistry. In itself, this must be considered a positive development, a form of "rational exuberance". Of course, the same financial innovations also allowed this justified optimism to gradually morph into a kind of "irrational exuberance". And, as has frequently (and recently) been the case,

variations on initial innovations both encouraged this transformation and made the financial system ever more unstable.

### **3. Financial Crises, Real Estate booms and Busts and Financial Innovations**

In Section 3 of his paper Franklin asks the question; how much did financial innovation contribute to the current crisis? The traditional answer, according to John Kenneth Galbraith, would be - a lot. In his "Short History of Financial Euphoria" he states that, in the aftermath of a crisis

"There will also be scrutiny of the previously much praised financial instruments and practices.....that have financed the speculation. There will be talk of regulation and reform. What will not be discussed is the speculation itself or the aberrant optimism that lay behind it."

Why is this the case? One reason is that it is relatively more comforting for those who were charged with the good governance of the financial system. It is plausible to argue that no one could have predicted the full effects of the introduction of these new innovations. In contrast, to put the blame on the same kind of speculation that we have seen repeatedly during history is less comforting. In effect, it was "here we go again" and you missed it. And Galbraith notes another, more theological reason. Those who believe in the efficiency of markets are never eager to give that belief up. Whether such beliefs will prevail in the aftermath of the current crisis remains to be seen.

Franklin clearly does not wish to associate himself with those who have traditionally put the blame on new financial innovations, and he is fundamentally right to do so. He notes, for example, that securitisation took off in the 1960's and never caused problems. As well, he points out that house price developments differed widely across states in the US, and between countries in Europe. He argues that this is hard to reconcile with a single force, innovation, that might have been expected to have a more universal influence.

Yet, in pursuing these valid arguments, I think Franklin goes a little too far. As I noted in the previous section, some innovations do have a dark side. It would be

interesting then to get Franklins views on which particular financial innovation, or extension of earlier innovations, played the biggest role in the current crisis. As we think back to the use of subprime instruments, cov lite loans, SIVs and conduits, CDO's and CDO squared, there is a long list to choose from. Of course, distinguishing the particular role played by particular innovations will be difficult, given the simultaneous observation of increased leverage, declining credit standards and outright fraud. As Kindleberger reminds us, in "Manias, Panics and Crashes" these are typical characteristics at the end of any credit driven bubble.

If financial innovation was not the primary cause of the crisis, what was? I agree entirely with Franklin that its origins can be found, as in the previous crises cited by Galbraith and Kindleberger, in excessive credit creation and declining lending standards. I also agree that one manifestation of this was a boom and bust cycle in real estate prices in many countries, and a concomitant increase in the risk exposure of many lenders. However, it is also important to note that the effects of the excessive credit creation extended well beyond asset prices and even well beyond the financial sector. There were significant harmful effects on the real (non-financial) economy as well. Nor is this unusual. As Reinhart and Rogoff point out in "This Time It's Different", more than half of the crises they looked at began on the real side of the economy, with the financial side being dragged down by bad loans only later.

Among these real side effects I would include remarkable declines in household saving rates during the boom period in many countries, including virtually all the English speaking countries. This rise in consumption was accompanied by sharply rising household debt figures. Elsewhere, but particularly in China, fixed capital formation rose to unprecedented levels of GDP. At the same time, whole industries expanded their production capacity beyond any reasonable estimate of potential demand. While the construction and real estate industries were certainly among them, so too were banking services, the auto industry, distribution services, shipbuilding and a host of others.

While some of these "imbalances" have begun to decline, most remain. Indeed, in many countries that maintained healthy banking systems, house prices never fell back but continue to hit new peaks. Moreover, while some of the overgrown industries noted above are now contracting, China has continued to expand its production capacity for both final and intermediate goods. Any significant

slowdown in China will reveal massive overcapacity in steel, aluminum and a host of other industries. And this in turn will feed back on commodity prices and those who produce them.

From these observations about the non-financial sector of the global economy, two conclusions follow. First, the global financial and economic crisis is by no means over. This would also not be unusual. As Reinhart and Reinhart have pointed out in “After the Fall”, recoveries from similar downturns in the past have taken well over a decade. Second, focusing almost exclusively on the stability of the financial sector, and its capacity to lend, may be to miss the forest for the trees. It is the need to recover from the misallocation of real resources that could constitute the chief source of “headwinds” to the global economy going forward. Evidently, this is not to say that financial stability is not highly desirable, but rather that it is not sufficient to ensure good macroeconomic performance.

#### **4. Private Equity: Venture Capital and Leverage Buyout Funds**

In talking about venture capital, Franklin documents that having this source of funding seems to materially improve the success of the firm seeking the money. He also makes the important point that the success of the investment does not depend on the provision of money alone. The selection process for the investment, heavy involvement in governance and management, the ability to entice in other (more traditional sources of finance), and the ability to “cash out” with large profits all play a role. In sum, there is no magic bullet in this area. A number of things have to come together before venture capital “works”. This point might also have borne repeating in his discussion of alternative sources of funding for startup ventures.

Similarly, Franklin notes that firms subjected to leveraged buyouts also seem to outperform. However, he provides no details as to what “changes in incentives, monitoring and governance structure” were responsible for this. Perhaps in light of the comment above, we should just assume that all of these attributes were required. Again, and sadly, there is no magic bullet in explaining success.

## **5. Financial Innovations to Improve the Environment and Global Health**

I very much enjoyed reading this part of the paper, not least because there is so much that needs to be done to capture the externalities associated with both improving the environment and human health. Franklin persuasively argues that financial innovations - like cap and trade and transferable fish quotas, as well as financial means of binding together large and small biotech firms - clearly have significant potential for good.

At the same time, I would have to mention that a number of the innovations he suggests might not be all that easy to put into practical effect. After early successes, the cap and trade market for Green House Gases in Europe is struggling. There have been also been problems with governance (counterfeit permits), and questions have been raised as to whether permits sold by Emerging Market Economies (EME's) do actually represent reduced pollution by the companies selling them. In any event, the amount of permit trading with EME's has to date remained very small.

The principle of Ockam's razor also suggests that other solutions might, in some cases, be tried first. Again by way of example, using taxes (and or permits) to internalize the externalities of energy consumption, while at the same continuing to subsidize energy use, seems daft. However, such subsidies are still very much in use in many EME's and it has proven politically difficult to remove them. This is doubly unfortunate since it appears that most of the benefit goes to the better off, who use most of the energy. Similarly, much of today's overfishing is done by boats that are still subsidized in many ways by governments. And this too is doubly unfortunate since much of the subsidization comes in the form of below market prices for fuel.

## **6. Conclusions**

A number of commentators have recently suggested that more effort should be put into distinguishing between "good" and "bad" financial innovations. While this seems sensible, it could be very hard to do. Whether the results are good or bad may depend on the circumstances in which the innovation occurs. Moreover, new innovations that are essentially good, but are badly implemented, may

initially produce bad results. Think of the evolution of junk bonds over the last two decades. Perhaps the best approach would be for regulators to focus solely on weeding out truly disruptive products. Then it would be left up to purchasers to decide whether the new product had value or not. Similar suggestions have recently been made for licensing new medical products.

In any event, regulation in the area of innovation is inherently impractical. What counts as an innovation that would have to be licensed? Would there be enough resources to evaluate all the new proposals being made by an inherently innovative industry? Perhaps we should conclude by simply accepting the premise of Franklin's article. Financial innovations are good on balance. Let a thousand flowers bloom!