**What have the economists ever done for us?**

**Andrew G Haldane,** 1 October 2012

*There is a long list of culprits when it comes to assigning blame for the financial crisis. This column argues economists are among the guilty, having succumbed to an intellectual virus of theory-induced blindness. It adds this calls for an intellectual reinvestment in models of heterogeneous, interacting agents, following in the footsteps of other social scientists. This will require a sense of academic adventure sadly absent in the pre-crisis period.*

There is a long list of culprits when it comes to assigning blame for the financial crisis. At least in this instance, failure has just as many parents as success. But among the guilty parties, economists played a special role in contributing to the problem. We are duty bound to be part of the solution (see Coyle 2012). Our role in the crisis was, in a nutshell, the result of succumbing to an intellectual virus which took hold of the body financial from the 1990s onwards.

One strain of this virus is an old one. Cycles in money and bank credit are familiar from centuries past. And yet, for perhaps a generation, the symptoms of this old virus were left untreated. That neglect allowed the infection to spread from the financial system to the real economy, with near-fatal consequences for both.

In many ways, this was an odd disease to have contracted. The symptoms should have been all too obvious from history. The interplay of bank money and credit and the wider economy has been pivotal to the mandate of central banks for centuries. For at least a century, that was recognised in the design of public policy frameworks. The management of bank money and credit was a clear public policy prerequisite for maintaining broader macroeconomic and social stability.

Two developments – one academic, one policy-related – appear to have been responsible for this surprising memory loss. The first was the emergence of micro-founded dynamic stochastic general equilibrium (DGSE) models in economics. Because these models were built on real-business-cycle foundations, financial factors (asset prices, money and credit) played distinctly second fiddle, if they played a role at all.

The second was an accompaying neglect for aggregate money and credit conditions in the construction of public policy frameworks. Inflation targeting assumed primacy as a monetary policy framework, with little role for commercial banks' balance sheets as either an end or an intermediate objective. And regulation of financial firms was in many cases taken out of the hands of central banks and delegated to separate supervisory agencies with an institution-specific, non-monetary focus.

Coincidentally or not, what happened next was extraordinary. Commercial banks' balance sheets grew by the largest amount in human history. For example, having flatlined for a century, bank assets-to-GDP in the UK rose by an order of magnitude from 1970 onwards. A similar pattern was found in other advanced economies.

This balance sheet explosion was, in one sense, no one’s fault and no one’s responsibility. Not monetary policy authorities, whose focus was now inflation and whose models scarcely permitted bank balance sheets a walk-on role. And not financial regulators, whose focus was on the strength of individual financial institutions.

Yet this policy neglect has since shown itself to be far from benign. The lessons of financial history have been painfully re-taught since 2008. They need not be forgotten again. This has important implications for the economics profession and for the teaching of economics. For one, it underscores the importance of sub-disciplines such as economic and financial history. As Galbraith said,"There can be few fields of human endeavour in which history counts for so little as in the world of finance." Economics can ill afford to re-commit that crime.

Second, it underlines the importance of reinstating money, credit and banking in the core curriculum, as well as refocusing on models of the interplay between economic and financial systems. These are areas that also fell out of fashion during the pre-crisis boom.

Third, the crisis showed that institutions really matter, be it commercial banks or central banks, when making sense of crises, their genesis and aftermath. They too were conveniently, but irresponsibly, airbrushed out of workhorse models. They now needed to be repainted back in.

The second strain of intellectual virus is a new, more virulent one. This has been made dangerous by increased integration of markets of all types, economic, but especially financial and social. In a tightly woven financial and social web, the contagious consequences of a single event can thus bring the world to its knees. That was the Lehman Brothers story.

These cliff-edge dynamics in socioeconomic systems are becoming increasingly familiar. Social dynamics around the Arab Spring in many ways closely resembled financial system dynamics following the failure of Lehman Brothers four years ago. Both are complex, adaptive networks. When gripped by fear, such systems are known to behave in a highly non-linear fashion due to cascading actions and reactions among agents. These systems exhibit a robust yet fragile property: swan-like serenity one minute, riot-like calamity the next.

These dynamics do not emerge from most mainstream models of the financial system or real economy. The reason is simple. The majority of these models use the framework of a single representative agent (or a small number of them). That effectively neuters the possibility of complex actions and interactions between agents shaping system dynamics.

The financial system is an archetypical complex, adaptive socioeconomic system – and has become more so over time. In the early years of this century, financial chains lengthened dramatically, system-wide maturity mismatches widened alarmingly and intrafinancial system claims ballooned exponentially. The system became, in consequence, a hostage to its weakest link. When that broke, so too did the system as a whole. Communications networks and social media then propagated fear globally.

Conventional models, based on the representative agent and with expectations mimicking fundamentals, had no hope of capturing these system dynamics. They are fundamentally ill-suited to capturing today’s networked world, in which social media shape expectations, shape behaviour and thus shape outcomes.

This calls for an intellectual reinvestment in models of heterogeneous, interacting agents, an investment likely to be every bit as great as the one that economists have made in DGSE models over the past 20 years. Agent-based modelling is one, but only one, such avenue. The construction and simulation of highly non-linear dynamics in systems of multiple equilibria represents unfamiliar territory for most economists. But this is not a journey into the unknown. Sociologists, physicists, ecologists, epidemiologists and anthropologists have for many years sought to understand just such systems. Following their footsteps will require a sense of academic adventure sadly absent in the pre-crisis period.

**References**

Coyle, Diane (2012), “[What’s the use of economics? Introduction to the Vox debate](http://voxeu.org/article/what-s-use-economics-new-vox-debate)” VoxEU.org, 19 September.