

## **“No one saw this coming” - Macroeconomics for the future.**

### **Introduction.**

On July 22<sup>nd</sup> 2009 the BBC reported that the UK outstanding national government debt was £799 billion, or 56.6% of Gross Domestic Product, the highest figure since records began in 1974. There was also a report from the National Institute of Economic and Social Research which stated that the predicted pace of recovery would be slower than that estimated by the government and that it would take 6 years for income per head in the UK to return to the highest levels achieved in early 2008. One might imagine that in 5 years time other things would have changed in any case. These figures are just some measure of the extent to which the crisis in the banking and financial sectors which began in 2007 is likely to impact upon the real economy. We know that tax rises and cuts in public spending will not be only a matter of time as whichever administration is in power seeks to reduce such high levels of government borrowing. So exactly how did matters reach such a pitch and why, if it is the case, did nobody see this coming?

These questions are the subject of a number of books and articles now to be found on the shelves and on-line and require some thoughtful evaluation and reflection. One way in which this is being tackled is by looking at the economic models (in this case macroeconomic models) which represent both current academic and policy-making orthodoxy to see how adequate they have been and to present possible alternatives. Thus the July 18<sup>th</sup>-24<sup>th</sup> 2009 edition of the Economist features just such articles. The leader article on Pp 11-12 asks “What went wrong with economics?” and goes on to suggest how the discipline should change in order to avoid the mistakes of the past. It is essentially conservative in tone, admitting that both macroeconomics and financial economics have made mistakes and need to be reviewed. It also says that with the exception of such high profile commentators as Robert Shiller and Nouriel Roubini (both mentioned in the paper summarized below), very few people saw this coming. A challenge is laid down that economists need to start working beyond their own silos in order to get a better grasp of the wider picture. But nothing too radical is really recommended.

The two articles later on in the journal go into the subject matter in greater depth. The first questions the simplistic macroeconomic models that are encountered both at academic and policy level and sees the

current crisis as an opportunity for the discipline to take a long hard look at itself and develop frameworks which do a better job of linking the real economy to the financial economy. The second examines the Efficient Markets Hypothesis and suggests that the work of Andrew Lo at MIT is worth pursuing. Shiller figures once again as does Richard Thaler of the University of Chicago who is one of the pioneers of behavioural finance. The article argues that:

The finance industry is in the midst of a transformative period of evolution, and financial economists have a huge agenda to tackle. They should do so quickly, given the determination of politicians to overhaul the regulation of financial markets. (P74)

Why is any of this of importance for those of us outside this specialized world and how is a non-economist to evaluate this sort of discussion? I have argued in my first paper on the Religious Futures Network (Authoritarian Capitalism), that a reasoned faith-based response needs to tackle the debate on at least 3 levels: the local or microeconomic; the macroeconomic; and then the global and/or cosmic! What is evident in the papers and books I am discussing here is that others are genuinely trying to examine the macroeconomic level and to develop an understanding of what went wrong and how this might be corrected in future. It is only ONE part of a much wider picture but, I would argue, it is an essential one that those who seriously wish to enter the debate about a different future need to engage.

### **Fool's Gold.**

Another useful contribution to this debate is the book "Fool's Gold: How Unrestrained Greed Corrupted a Dream, Shattered Global Markets and Unleashed a Catastrophe" (Little, Brown Book Group, 2009) which, as one might imagine from the title is written by a journalist. Gillian Tett is a deputy editor on the Financial Times where she runs the global markets coverage. She also has a Ph.D in Social Anthropology from Cambridge. The book follows the story through the narrative of the original J.P.Morgan team who developed the financial instruments which are now right at the heart of the crisis. "The Derivatives Dream" as she entitles the opening chapter, began back in 1994, with somewhat different objectives in mind. Her basic argument – which is broadly sympathetic to the motives and reasoning of this team throughout – is that derivatives as constructed in that original scenario, were supposed to be a means of controlling risk by spreading it. As with all such developments however

everything depends on how they are used (and possibly abused) by others. The tools which were devised to control risk could be – and in fact in due course were – employed in such a way as to amplify risk (P25).

Much of the subsequent account goes on to narrate the story of how others came to use derivatives (Collateralized Debt Obligations, Credit Default Swaps etc) in a way that those originators would neither predict nor understand – for instance, much of the debt accumulated was held by the banks concerned rather than being sold on as under the original J.P.Morgan model, so that once the impact of the US subprime mortgage crisis began to take effect massive losses were accrued through these so-called toxic assets. This is what has determined the bail-out of banks by governments and the massive and growing national debt figures such as those posted by the UK.

I do not intend to go into the details of the book as those interested can read it for themselves. What I will do though is to offer some comments from a faith-based perspective. What comes across most forcefully can be summed up in the theological term “hubris” – otherwise translated as pride, but this is a watered-down version of the full meaning. “Playing God” might be a more colloquial version! The confidence and certainty displayed by many of the key players in the evolving crisis is quite staggering. One of the criticisms raised by those who developed the original models is that these are just models, which are only as good as the data fed into them and the judgements of those making decisions on the back of them. Yet, it seems to me as an outsider, that so much emphasis, not just within the financial sector but in other areas of government policy, is founded upon “models”. Predictions about the future scale of swine flu – for instance – are based upon models and this is the way in which the issue is presented to the public. Models are a means of projecting into the future and then become the basis for planning and resource allocation.

Now it is all very well, after the event, to argue that the models were inaccurate or that too great a dependency was placed upon them, but this is the way the whole system works! Finance and banking in particular appear to have become the province of mathematical “whizz kids” who adore complex financial and computer modelling, apparently often with little knowledge of or connection to the “real economy”. At least, that is the implication of this book. The type of model employed in the derivatives sector seems to have assumed that the level of risks involved was less than it actually was and that there would not be a sudden downturn in the US housing market or, that if there were such, its impact

could be easily contained. Such models did not take into account the “unthinkable”! What is one to make of this?

One could argue that this form of hubris is what inevitably develops, in one form or another, as the “good times” become so well established that people begin to believe they are long-term and sustainable. It is only those with long enough memories and experience who know that “the good times” never do last, and that, sooner or later, matters will shift in the other direction and that one must also be prepared for this eventuality. A certain Joseph in the Old Testament had some such inkling about 7 good years of harvest and 7 lean years. Nothing new there then! So the models are a symptom rather than a cause, one might argue. The cause is human nature getting “too big for itself” and imagining that it has everything under control.

The other thing that I was looking forward to at the end of Tett’s book was her solution to all this. With sensible modesty she resists the temptation of presenting any such thing and acknowledges that she is still trying to make sense of the last decade of grotesque financial mistakes (P298). Drawing on her work as a social anthropologist, she suggests that a more holistic approach is now called for, that power structures and orthodoxies need to be treated with suspicion, and that the “silo mentality” within the banking system needs to be broken down. Far too much happened behind closed doors, within a shadow banking system, where those ultimately responsible were not aware of the nature, let alone of the scale, of problems that were building up. Those who did raise doubts and questions were in a minority and because they were bearers of bad news, were largely ignored – this includes, according to Tett, some working within the J.P.Morgan set-up and some of the originators of the derivatives models. Unrestrained greed appears to have pushed and motivated those who took the derivatives agenda into uncharted and dangerous territory. Unfortunately, Tett does not talk about greed as such, nor does she suggest any sort of moral framework within which the financial system might need to operate. The impression is that a return to good old banking philosophy and values and a capacity to “sit lighter” to complex mathematical models is the recipe for a return to some sort of normality – or maybe not! As Tett says, we are all connected now as a result of globalization, and this has changed the nature of how we operate.

Overall then, one emerges from this interesting read with a sort of “lostness”, a sense that things have gone badly wrong but that nobody is quite clear how or why. In the late 1990s what had until then been under

control, then got out of control. But one has to ask whether such matters are ever “under control” and the extent to which what has happened is the logical consequence of what went before rather than a temporary aberration. Is a macroeconomics that cannot be placed in some wider moral framework ever going to be anything other than short-sighted and limited in its vision? Is it enough to simply learn the lessons of the past in purely internal economic terms? What is the “new paradigm” for which we are now searching? How might better informed understandings of human psychology contribute to a reformulation of macroeconomic theory?

### **So who did see this coming and how did they do it?**

I now offer a summary of a paper that offers some more internal thoughts on the subject of macroeconomics and how some people did foresee the coming crisis. The paper is entitled “No One Saw this Coming”: Understanding Financial Crisis Through Accounting Models written by Dirk J Bezemer of the University of Groningen (Bezemer, 2009). The common view from the upper echelons of the global financial and policy hierarchy and in academia generally is that no one saw the credit crisis coming, yet it is clear that certain individuals did do so. What is to be learnt from this?

The credit crisis and ensuing recession may be viewed as a “natural experiment” in the validity of economic models – those that failed to foresee something this momentous may need changing. This is likely to come from those models that did predict instability. The difference is between equilibrium and accounting models. Accounting models represent households’, firms’ and governments’ balance sheets and their interrelations. If society’s wealth and debt levels reflected in such balance sheets are among the determinants of its growth sustainability and financial stability, such models are likely to be timely signal threats of instability.

This study is about how accounting as a discipline relates to business studies and economics – especially macroeconomics. The argument is that recognizing the accounting forms in which economic (including financial) relations of necessity exist, is important and perhaps indispensable, for understanding the economic and financial system’s sustainability, and whether there is a financial crisis looming.

Examples of those who did not see this coming include Alan Greenspan, the then Federal Reserve Chairman in a speech on October 12<sup>th</sup> 2005 who

claimed that the development of increasingly complex financial instruments had created a more flexible, efficient and hence resilient financial system than the one that existed 25 years ago. Likewise the IMF in a report of August 2006 confirmed that “there is little systematic evidence to support widely cited claims that financial globalization by itself leads to deeper and more costly crises”. Greenspan in his October 2008 testimony before the Committee of Government Oversight and Reform professed to “shocked disbelief” while watching his “whole intellectual edifice collapse in the summer of 2007”.

### **Criteria for those who did see this coming.**

For a set of correct predictions to attain ex-post credibility though, it is required that they are supported by a common theoretical framework. So four selection criteria were applied in Bezemer’s paper: only analysts were included who provide some account of how they arrive at their conclusions: the analysts included went beyond predicting a real estate crisis, also making the link to real-sector recessionary implications including an analytical account of those links: the actual prediction must have been made by the analyst and available in the public domain rather than being asserted by others: the prediction had to have some timing attached to it. The 12 analysts who meet these criteria belie the notion that “no one saw this coming” and they share a set of common concerns. These are: the distinction between financial assets and real-sector assets; with the credit flows that finance both forms of wealth; with the debt growth accompanying growth in financial wealth; and with the accounting relation between the financial and the real economy.

So, dealing with these in turn.

- The distinction between financial wealth and real assets. Schiff and Richebacher adhere to the “Austrian School” in economics, emphasizing savings, production (not consumption) and real capital formation as the basis of sustainable economic growth. Likewise Shiller warns that our infatuation with the stock market (financial wealth) is fuelling volatility and distracting us from the more durable economic project of building up real assets.
- A concern with debt as the counterpart of financial wealth follows naturally. Madsen from 2003 worried that the Danes were living on borrowed time because of the mortgage debt which “had never been greater in our economic history”. Godley in 2006 published a

paper arguing that the US dependence on debt growth would plunge the US into a “sustained growth recession... somewhere before 2010”. Schiff points to the low savings rate of the US as its worst malady, citing the transformation from being the world’s largest creditor nation in the 1970s to the largest debtor nation by 2000. Keen in Australia argued similarly that the country could not keep borrowing at current rates, but would have to reverse the rise in debt, but by that time would already be in recession (2006).

- A further concern is that growth in financial wealth and the attendant growth in debt can become a determinant instead of an outcome of economic growth, undermining its sustainability and leading to a downturn. There is a recurrent emphasis (e.g. Baker, 2007) that home equity-fuelled consumption has in recent years sustained stable growth (especially in the US and UK) more than anything else, and that this was dangerous. Godley and Wray argued that as soon as debt growth slowed down – as it inevitably would within years – growth would falter and recession set in. This recessionary impact of the bursting of asset bubbles is also a shared view.
- Emphasis on the role of credit cycles in the business cycle leads to a long-term view on credit cycles. There is a need to look over a longer time span than simply the 1980s-2000s period. US economic growth since the 2000 dotcom crash is viewed by several as “phony” growth in that it was (consciously or unwittingly) engineered by the monetary authorities via generous credit policies, rather than driven by real-sector performance.

So what the critics share is a concern with the accounting or flow of funds view of the economy in contrast with the more orthodox equilibrium model. This is most explicit with Keen (2006), Hudson (2006) and especially Godley (1999, 2007) who each present explicit accounting models of the economy. Key features of this are: the circular flow of goods and money; a separate representation of stocks (inventories, wealth and debt) and flows (goods, services and funds); explicit modelling of the financial sector as distinct from the real economy, so allowing for independent growth and contraction effects from finance on the economy; non-optimising behaviour by economic agents in an environment of uncertainty; accounting identities (not the equilibrium concept) as determinants of model outcomes in response to shocks in the environment or in policy.

## **“Flow of Funds” Models:**

What is known as the FIRE Sector ( finance, insurance and real estate) includes all sorts of wealth-managing nonbank firms (pension funds, insurers, money managers, merchant banks, real estate agents etc) as well as deposit-taking banks, which generate credit flows. It is conceptually separate from the real sector which includes government, firms and households. Liquidity from the FIRE sector flows to firms, households and governments as they borrow. It facilitates fixed-capital investment, production and consumption, the value of which – by accounting necessity – is jointly equal to real-sector income in the form of profit, wages and taxes plus financial investment and obligations. Funds that originate in the banking part of the FIRE sector then either circulate in the real economy, or return to the FIRE sector as financial investments or in payment of debt services and financial fees. Total credit flows (in nominal currency units) are normally increasing year on year, reflecting positive profits and interest rates.

Thus there is a trade-off between the financing of production (out of retained earnings and fresh lending) on the one hand, and credit flows returning into the financial sector on the other. This trade-off is absent from the mainstream models and debate, but is crucial to understanding the crisis. As Friedman (2009) says “an important question – which no one seems interested in addressing – is what fraction of the economy’s total returns... is absorbed up front by the financial industry”.

How did the structure of flow of funds models allow their users to distinguish between financially sustainable and unsustainable growth and so to anticipate a credit-cum-debt crisis? Maybe like this.....  
A benchmark scenario of financially sustainable growth is when the economy expands with constant fractions of its credit flows going to the financial and real sectors. Debt burdens do not grow as proportion of the real economy and therefore remain serviceable, and the FIRE sector cannot have a bad loan problem. Conversely, debt growth is the central factor in undermining the financial sustainability of economic growth. Of all possible configurations of behaviour in the Godley model, only a default on debt can “unbalance the banks’ consolidated balance sheet” (Godley 1999).

Conditions for such default may develop as, different from the benchmark scenario, financial expansion or financial innovation occurs.

This may be driven by the real economy requiring more of its wealth to be managed in financial instruments and assets, or because of the need for new financial instruments responding to changed needs to save, to invest, and to smooth consumption. This will be reflected in a one-off (or in any case temporary) shifting of credit flow fractions, with a larger fraction being used for financial transactions vis a vis real sector transactions in goods and services. Financial innovation so serves the real economy's needs, in that it boosts real-sector productivity and its ability to service its increased debts. But it also opens up the possibility of a *sustained* drain of liquidity from the real to the FIRE sector, so inflating asset prices – a credit bubble, or harmful financialization of the economy (Epstein 2005). Giovanni Arrighi's definition of financialization as the “capacity of finance capital to take over and dominate, for a while at least, all the activities of the business world” identified the financialization process since the late 1970s as a “transformation within the macro political economy (which) poses several questions for accounting research as we attempt to understand accounting's relationship to the unfolding crisis”.

So any credit flows to firms and households exceeding the growth of investment, production and consumption in the real economy will be held as wealth, and so invested in the FIRE sectors. This extra liquidity inflates the money value of financial assets and instruments (housing, stocks, bonds, currency, derivative instruments) so increasing returns on financial investments. Through their rising net worth, firms and households can – if lending regulations allow – borrow more against their collateral (which is what they will do if they believe this to be sustainable). This means that banks create yet additional credit which is again invested in the FIRE sector, further pushing up asset prices. Each flow of credit has its balance sheet counterpart in increased debt levels for firms and households. The new situation is characterised by (a) higher returns on financial assets relative to real-economy investment, and (b) a larger part of the (say annual) credit flow going towards debt servicing and financial fees, and a smaller part to investment in the real sector. So begins and is sustained a cycle or boom with credit flows shifting away from the real sector economy into the financial sector. Consumption – and the production that depends on it – may become financed more by fresh credit and debt flows from the FIRE sector based on capital gains than by real sector wages and profits.

This dynamic (bubble) is unsustainable as it is constrained by the real economy's ability to service debt. A burst occurs as investors realise this constraint is approaching or has been reached. The severity of the impact of the burst will be larger as real-economy consumption (and therefore

production) have grown more dependent on capital gains rather than on wages and profit. Mainstream economists had difficulty identifying this growing problem whereas accounting-based economists did spot it, as they monitored the accounting relations between the real economy and the financial sector flow revealing the growing imbalance in the flow of funds between the real and the financial sectors, as well as the extent to which the economy had grown dependent on asset price gains.

### **Equilibrium versus Accounting Models.**

Why this dichotomy between equilibrium models dominating official forecasting and policy, and flow of funds models in use in non-official analyses? The equilibrium models reflect neo-classical economics, the approach that is dominant in academic economics departments. This includes the behavioural assumptions of individual optimizing behaviour and a passive role for the financial sector and for the flow of funds. Flow of funds or accounting models reflect assumptions about the role of the financial sector and about individuals' behaviour which is heterodox relative to this academic orthodoxy. The former approach is institutionalised in both academy and policy making circles – there is a “revolving door” between the two very often both in the US and the UK.

Many of the flow of funds economists reject rational equilibrium on the basis of arguments related to economic psychology and to the Keynesian notion of “radical uncertainty” (as opposed to calculable risks). Keen is a good example of this. His view of human assessment and investment behaviour allows for a crisis of confidence in a way that equilibrium models – where investment is always guided by the marginal costs and benefits of underlying real capital assets – cannot. This possibility, in turn, allowed the above analysts to contemplate the plausibility that the general mood is not rational but mistaken, and that crisis looms amidst seemingly tranquil conditions. Shiller talks about “irrational exuberance” and Minsky's work from the 1980s has come back into the reckoning.

All models abstract from some aspects of reality. Equilibrium models abstract from the flow of funds and the stocks of credit and debt, and the systemic risks implied in them; they focus on the individual optimization problems facing individuals. Accounting models abstract from optimization problems and focus of the flow of funds and the stocks of credit and debt. The assumption is that individual decisions will always be reflected in the aggregate flow of funds and the stocks of credit and

debt, and that this is where an economy's rate of return and systemic risks are formed.

Macroeconomic equilibrium models are grounded in the model of a national economy pioneered by the French 18<sup>th</sup> century economist Francois Quesnay, whereas the accounting model can be traced back to "Say's Law" named after Jean Baptiste Say. Say recognised the demand side of the economy and the purchasing power of money to keep the circular flow moving. An implication of this is that if the funds required by producers to produce goods are drained to the FIRE sector in debt servicing, this will interrupt the productive flow of funds and so disrupt economic growth. According to Bezemer then, the 12 who "saw it coming" are: Dean Baker; Wynne Godley; Fred Harrison; Michael Hudson; Eric Janszen; Stephen Keen; Jakob Madsen; Kurt Richerbacher; Nouriel Roubini; Peter Schiff; Robert Shiller. Jens Sorenson.

## **Conclusion.**

What alternative approaches to macroeconomics are already available and being developed? According to one of the 12, Steve Keen, with whom I have had some contact via email and whose debt deflation blog on his website is well worth following, there are the following:

- Austrian economics, which shares many of the features of neo-classical economics but without a slavish devotion to the equilibrium model.
- Post-Keynsian economics, which is highly critical of neoclassical economics and emphasises the importance of uncertainty.
- Sraffian economics, based on Sraffa's concept of the production of commodities by means of commodities.
- Complexity Theory, which applies the concept of nonlinear dynamics and chaos theory to economic issues.
- Evolutionary Economics, which treats the economy as an evolving system along the lines of Darwin's theory of evolution

(Keen in "Debunking Economics", Zed Books, London, 2007, P300).

There is however another approach which appears to be gaining momentum and creating considerable amounts of interest. One of the main proponents of this is Robert Shiller, himself one of the 12. This is known as "Behavioural Finance" and is related to although not coterminous with the ideas of "Behavioural Economics". In simple terms this relies on putting to work insights from psychology in the field of

human economic activity at both the micro and macro levels. It reminds me of a comment from Niall Ferguson's "The Ascent of Money" (Penguin Books, 2009, P122), where, talking about the stock markets, he says that they are mirrors of the human psyche. Depression, elation, over-exuberance, amnesia can each be identified in the regular stock market crashes that have occurred over the years. This raises the critical question about human rationality that seems to be at the heart of this discussion. Do people behave according to the rational criteria so beloved of neoclassical economists? A sensible answer would seem to be "in part", but ONLY "in part". As Ferguson says, some of the exuberant are less irrational than others (P123).

So what does Shiller have to say and is this approach to macroeconomics and finance worth pursuing as one attempts to develop a faith-based response to the current crisis? Shiller has written a number of books including one on the previous "bubble" based on the dotcom enthusiasm. Writing now with George Akerlof of the University of California, Berkeley, he has produced the book "Animal Spirits" which is referred to in the second article in the quoted copy of the Economist (P74). According to the article:

....behavioural economists have argued that human beings tend to be too confident of their own abilities and tend to extrapolate recent trends into the future, a combination that may contribute to bubbles. There is also evidence that losses can make investors extremely, irrationally risk-averse – exaggerating price falls when a bubble bursts.

An internal argument for macroeconomics is whether employing these psychological insights – which seem to coincide with recent experience – undermines the efficient markets hypothesis of neoclassical economists, and whether or not there is a true alternative model developing from this source. Economists such as Richard Thaler apparently argue that the two approaches are drawing closer together. As noted earlier, this is why the article then goes on to highlight the work of Andrew Lo of MIT and his "adaptive markets hypothesis".

At this stage all one can perhaps say is that this line of investigation is worth pursuing and that behavioural finance and behavioural economics have some important insights to feed into this debate. The other related question from a theological perspective is that of what sort of "anthropology" could lie behind this. I would draw attention to my own

suggestions in “Blurred Encounters: A Reasoned Practice of Faith” (Aureus, Vale of Glamorgan, 2005, P135) of the need to identify the pre-autonomous, autonomous and post-autonomous dimensions of human operation. One obvious weakness of the neoclassical approach to economics may be that it places too much emphasis upon the autonomous level of operation, thus ignoring the pre-autonomous levels now being highlighted by behavioural economics. Thus one needs to take into account the emotional dimensions in human behaviour and decision-making, the importance of confidence and faith, the role of fear and panic, not to mention the motivators of greed and a search for power. Unless all of these are brought together in some more holistic anthropology, and until or unless they can be placed in a context of a post-autonomous or morally-based set of aspirations for what human beings and human society ought to become, then the picture we have of human economic behaviour is seriously inadequate. Any reformulation of macroeconomics needs to respond to this challenge.

Revd Dr John Reader. July 2009.

### **Select Bibliography.**

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