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**Issue no. 66**, 13 January 2014

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## Secular stagnation and endogenous money

Steve Keen [\[www.debtdeflation.com/blogs\]](http://www.debtdeflation.com/blogs)

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The crisis of 2007/08 has generated many anomalies for conventional economic theory, not the least that it happened in the first place. Though mainstream economic thought has many channels, the common belief before this crisis was that either crises cannot occur (Edward C. Prescott, 1999), or that the odds of such events had either been reduced (Ben Bernanke, 2002) or eliminated (Robert E. Lucas, Jr., 2003) courtesy of the scientific understanding of the economy that mainstream theory had developed.

This anomaly remains unresolved, but time has added another that is more pressing: the fact that the downturn has persisted for so long after the crisis. Recently Larry Summers suggested a feasible explanation in a [speech at the IMF](#). “Secular stagnation”, Summers suggested, was the real explanation for the continuing slump, and it had been with us for long before this crisis began. Its visibility was obscured by the Subprime Bubble, but once that burst, it was evident.

This hypothesis asserts, in effect, that the crisis itself was a second-order event: the main event was a tendency to inadequate private sector demand which may have existed for decades, and has only been masked by a sequence of bubbles. The policy implication of this hypothesis is that generating adequate demand to ensure full employment in the future may require a permanent stimulus from the government – meaning both the Congress and the Fed – and perhaps the regular creation of asset market bubbles.

What could be causing the secular stagnation – if it exists? Krugman (Paul Krugman, 2013b) noted a couple of factors: a slowdown in population growth (which is obviously happening: see Figure 1); and “a Bob Gordonesque decline in innovation” (which is rather more conjectural).

Though Summers’ thesis has its mainstream critics, there’s a chorus of New Keynesian support for the “secular stagnation” argument, which implies it will soon become the conventional explanation for the persistence of this slump long after the initial financial crisis has passed.

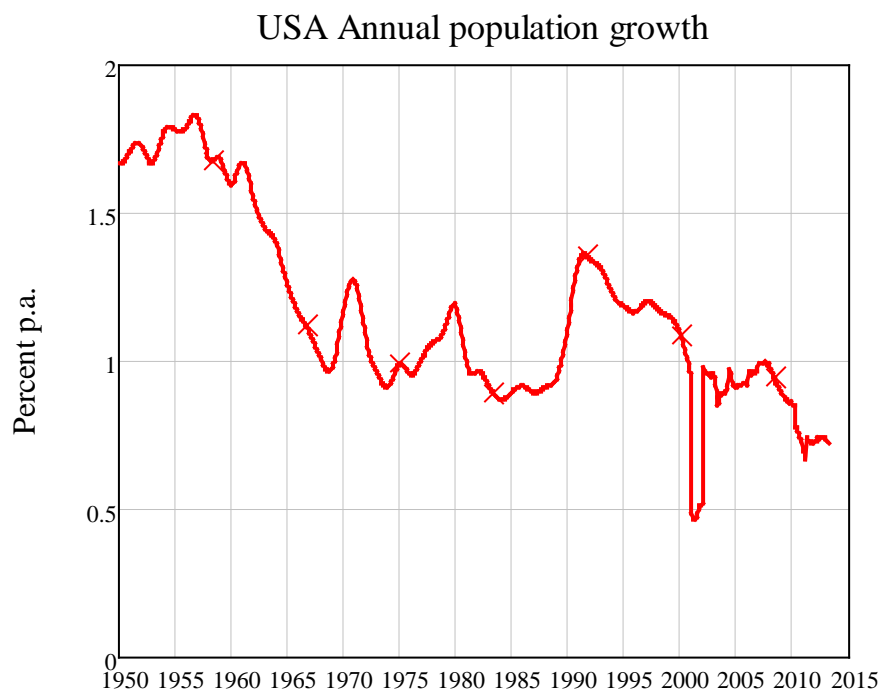
Krugman’s change of tune here is representative. His most recent book-length foray into what caused the crisis – and what policy would get us out of it – was entitled *End This Depression NOW!*. The title, as well as the book’s contents, proclaimed that this crisis could be ended “in the blink of an eye”. All it would take, Krugman then proposed, was a sufficiently large fiscal stimulus to help us escape the “Zero Lower Bound”:

The sources of our suffering are relatively trivial in the scheme of things, and could be fixed quickly and fairly easily if enough people in positions of power understood the realities...

One main theme of this book has been that in a deeply depressed economy, in which the interest rates that the monetary authorities can control are near zero, we need more, not less, government spending. A burst of federal

spending is what ended the Great Depression, and we desperately need something similar today. (Paul Krugman, 2012, pp. 23, 231)

Figure 1: Population growth rates are slowing



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Post-Summers, Krugman is suggesting that a short, sharp burst of government spending will **not** be enough to restore “the old normal”. Instead, to achieve pre-crisis rates of growth in future – and pre-crisis levels of unemployment – permanent government deficits, and permanent Federal Reserve spiking of the asset market punch via QE and the like, may be required.

Not only that, but past apparent growth successes – such as [The Period Previously Known as The Great Moderation](#) – may simply have been above-stagnation rates of growth motivated by bubbles:

So how can you reconcile repeated bubbles with an economy showing no sign of inflationary pressures? Summers’s answer is that we may be an economy that needs bubbles just to achieve something near full employment – that in the absence of bubbles the economy has a negative natural rate of interest. And this hasn’t just been true since the 2008 financial crisis; it has arguably been true, although perhaps with increasing severity, since the 1980s. (Paul Krugman, 2013b)

This argument elevates the “Zero Lower Bound” from being merely an explanation for the Great Recession to a General Theory of Macroeconomics: if the ZLB is a permanent state of affairs given secular stagnation, then permanent government stimulus and permanent bubbles may be needed to overcome it:

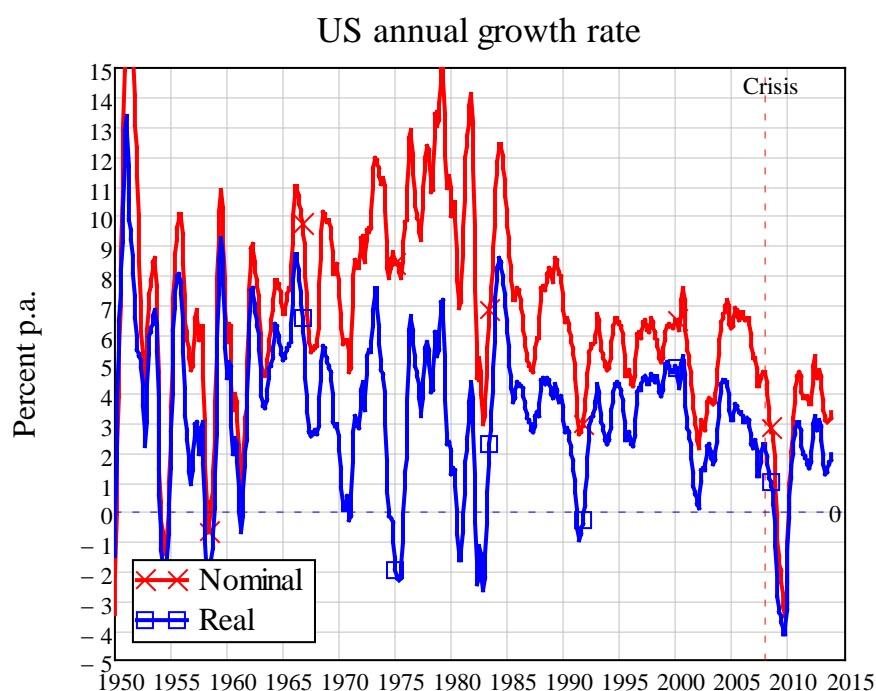
One way to get there would be to reconstruct our whole monetary system – say, eliminate paper money and pay negative interest rates on deposits.

Another way would be to take advantage of the next boom – whether it's a bubble or driven by expansionary fiscal policy – to push inflation substantially higher, and keep it there. Or maybe, possibly, we could go the Krugman 1998/Abe 2013 route of pushing up inflation through the sheer power of self-fulfilling expectations. (Paul Krugman, 2013b)

So is secular stagnation *the* answer to the puzzle of why the economy hasn't recovered post the crisis? And is permanently blowing bubbles (as well as permanent fiscal deficits) the solution?

Firstly there is ample evidence for a slowdown in the rate of economic growth over time – as well as its precipitate fall during and after the crisis.

**Figure 2: A secular slowdown in growth caused by a secular trend to stagnation?**



The growth rate was as high as 4.4% p.a. on average from 1950-1970, but fell to about 3.2% p.a. from 1970-2000 and was only 2.7% in the Naughties prior to the crisis – after which it has plunged to an average of just 0.9% p.a. (see Table 1).

**Table 1: US Real growth rates per annum by decade**

Start	End	Growth rate p.y. for decade	Growth rate since 1950
1950	1960	4.2	4.2
1960	1970	4.6	4.4
1970	1980	3.2	4
1980	1990	3.1	3.8
1990	2000	3.2	3.7
2000	2008	2.7	3.5
2008	Now	0.9	3.3

So the sustained growth rate of the US economy *is* lower now than it was in the 1950s–1970s, and the undoubted demographic trend that Krugman nominates is clearly one factor in this decline.

Another factor that Krugman alludes to in his post is the rise in household debt during 1980–2010 – which at first glance is incompatible with the “Loanable Funds” model of lending to which he subscribes.<sup>1</sup> In the Loanable Funds model, the aggregate level of debt (and changes in that level) are irrelevant to macroeconomics – only the distribution of debt can have significance:

Ignoring the foreign component, or looking at the world as a whole, we see that the overall level of debt makes no difference to aggregate net worth – one person’s liability is another person’s asset. It follows that the level of debt matters only if the distribution of net worth matters, if highly indebted players face different constraints from players with low debt. (Paul Krugman, 2012a, p. 146)

Furthermore, the distribution of debt can only have macroeconomic significance at peculiar times, when the market mechanism is unable to function because the “natural rate of interest” – the real interest rate that will clear the market for Loanable Funds, and lead to zero inflation with other markets (including labor) in equilibrium – is negative.

Prior to Summers’ thesis, Krugman had argued that this peculiar period began in 2008 when the economy entered a “Liquidity Trap”. Private debt matters during a Liquidity Trap because lenders, worried about the capacity of borrowers to repay, impose a limit on debt that forces borrowers to repay their debt and spend less. To maintain the full-employment equilibrium, people who were once lenders have to spend more to compensate for the fall in spending by now debt-constrained borrowers.

But lenders are patient people, who by definition have a lower rate of time preference than borrowers, who are impatient people:

Now, if people are borrowing, other people must be lending. What induced the necessary lending? Higher real interest rates, which encouraged “patient” economic agents to spend less than their incomes while the impatient spent more. (Krugman, “[Deleveraging and the Depression Gang](#)”)

The problem in a Liquidity Trap is that rates can’t go low enough to encourage patient agents to spend enough to compensate for the decline in spending by now debt-constrained impatient agents.

You might think that the process would be symmetric: debtors pay down their debt, while creditors are correspondingly induced to spend more by low real interest rates. And it would be symmetric if the shock were small enough. In fact, however, the deleveraging shock has been so large that we’re hard up against the zero lower bound; interest rates can’t go low enough. And so we

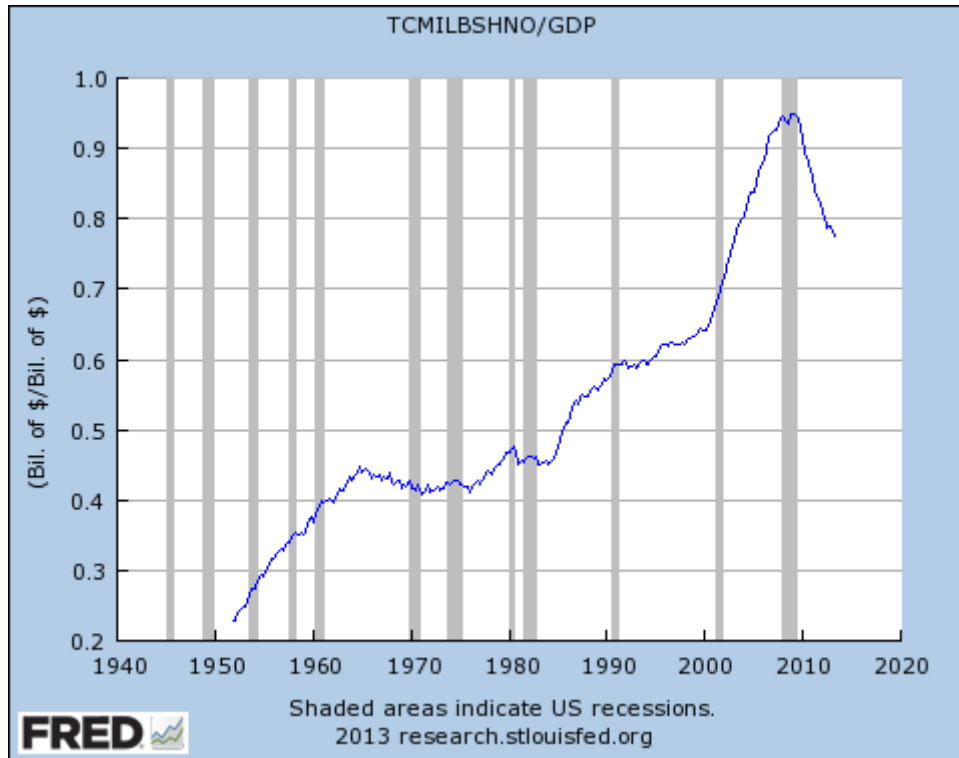
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<sup>1</sup> I won’t consider other potential causes here. These range from the rather more dubious suggestion of a decline in innovation made by Krugman, to factors that Neoclassical economists like Krugman dismiss but others have proposed as major factors – such as the relocation of production from the USA to low wage countries – to factors on which there is more agreement, such as the rise in inequality.

have a persistent excess of desired saving over desired investment, which is to say persistently inadequate demand, which is to say a depression. (Krugman, "[Deleveraging and the Depression Gang](#)")

After Summers, Krugman started to surmise that the economy may have been experiencing secular stagnation since 1985, and that only the rise in household debt masked this phenomenon. Consequently the level and rate of change of private debt could have been macroeconomically significant not merely since 2008, but since as long ago as 1985.

**Figure 3: Ratio of household debt to GDP**



Commenting on the data (Figure 3, sourced from the St Louis Fed's excellent FRED database, is taken from Krugman's post), Krugman noted that perhaps the increase in debt from 1985 on masked the tendency to secular stagnation. Crucially, he proposed that the "natural rate of interest" was negative perhaps since 1985, and only the demand from borrowers kept actual rates positive. This in turn implied that, absent bubbles in the stock and housing markets, the economy would have been in a liquidity trap since 1985:

There was a sharp increase in the ratio after World War II, but from a low base, as families moved to the suburbs and all that. Then there were about 25 years of rough stability, from 1960 to around 1985. After that, however, household debt rose rapidly and inexorably, until the crisis struck.

So with all that household borrowing, you might have expected the period 1985-2007 to be one of strong inflationary pressure, high interest rates, or both. In fact, you see neither – this was the era of the Great Moderation, a time of low inflation and generally low interest rates. Without all that increase in household debt, interest rates would presumably have to have been considerably lower – maybe negative. In other words, you can argue that our

economy has been trying to get into the liquidity trap for a number of years, and that it only avoided the trap for a while thanks to successive bubbles.

In general, the Loanable Funds model denies that private debt matters macroeconomically, as Krugman put it emphatically in a series of blog posts in 2012:

Keen then goes on to assert that lending is, by definition (at least as I understand it), an addition to aggregate demand. I guess I don't get that at all. *If I decide to cut back on my spending and stash the funds in a bank, which lends them out to someone else, this doesn't have to represent a net increase in demand.* Yes, in some (many) cases lending is associated with higher demand, because resources are being transferred to people with a higher propensity to spend; but Keen seems to be saying something else, and I'm not sure what. I think it has something to do with the notion that creating money = creating demand, but again that isn't right in any model I understand. (Paul Krugman, 2012b. Emphasis added).

However, the Summers conjecture provides a means by which private debt could assume macroeconomic significance since 1985 within the Loanable Funds model. Once secular stagnation commenced – driven, in this conjecture, by the actual drop in the rate of growth of population and a hypothesized decline in innovation – the economy was effectively in a liquidity trap, and somehow rising debt hid it from view.

That is the broad brush, but I expect that explaining this while remaining true to the Loanable Funds model will not be an easy task—since, like a Liquidity Trap itself, the Loanable Funds model is not symmetric. Whereas Krugman was able to explain how private debt causes aggregate demand to fall when debt is falling and remain true to the Loanable Funds model (in which banks are mere intermediaries and both banks and money can be ignored – see Gaulti B. Eggertsson and Paul Krugman, 2012), it will be much harder to explain how debt adds to aggregate demand when it is rising. This case is easily made in an Endogenous Money model in which banks create new spending power, but it fundamentally clashes with Loanable Funds in which lending simply redistributes existing spending power from lenders to borrowers. Nonetheless, Krugman has made such a statement in a post-Summers blog:

Debt was rising by around 2 percent of GDP annually; that's not going to happen in future, which a naïve calculation suggests means a reduction in demand, other things equal, of around 2 percent of GDP. (Paul Krugman, 2013a)

If he manages to produce such a model, and if it still maintains the Loanable Funds framework, then the model will need to show that private debt affects aggregate demand only during a period of either secular stagnation or a liquidity slump – otherwise the secular-stagnation-augmented Loanable Funds model will be a capitulation in all but name to the Endogenous Money camp (Nick Rowe, 2013).<sup>2</sup> Assuming that this is what Krugman will

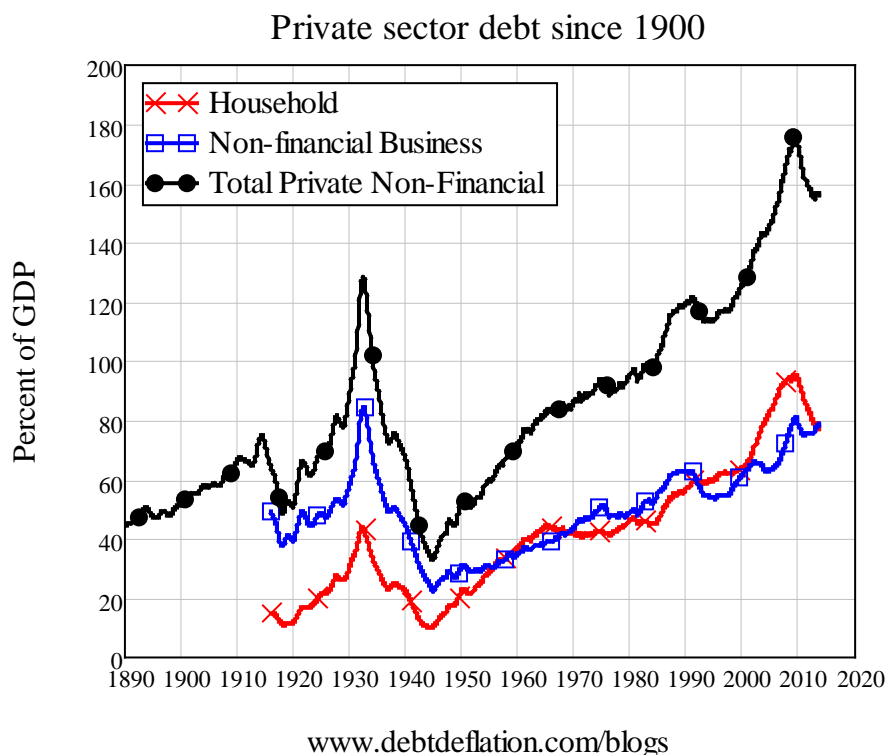
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<sup>2</sup> [Nick Rowe](#) has shown how my oft-repeated shorthand that aggregate demand is income plus the change in debt can be expressed in a Neoclassical manner, so long as one acknowledges the Endogenous Money case that bank lending creates new money: "Aggregate actual nominal income equals aggregate expected nominal income plus amount of new money created by the banking system minus increase in the stock of money demanded." However as well as abandoning Loanable Funds, this perspective requires abandoning equilibrium analysis as well: "We are talking about a Hayekian process

attempt, I want to consider the empirical evidence on the relevance of private debt to macroeconomics. If it is indeed true that private debt only mattered post-1985, then this is compatible with a secular-stagnation-augmented Loanable Funds model – whatever that may turn out to be. But if private debt matters before 1985, when secular stagnation was clearly not an issue, then this points in the direction of Endogenous Money being the empirically correct model.

I will consider two indicators: the correlation between change in aggregate private nonfinancial sector debt and unemployment, and the correlation between the acceleration of aggregate private nonfinancial sector debt<sup>3</sup> and the change in unemployment. I am also using two much longer time series for debt and unemployment. Figure 4 extends Krugman's FRED chart by including business sector debt as well ([click here to see how this data was compiled](#) – and a longer term estimate for US debt that extends back to 1834: the [data is downloadable from here](#)). The unemployment data shown in Figure 5 is compiled from BLS and NBER statistics and Lebergott's estimates (Stanley Lebergott, 1986, 1954, Christina Romer, 1986) and extends back to 1890.

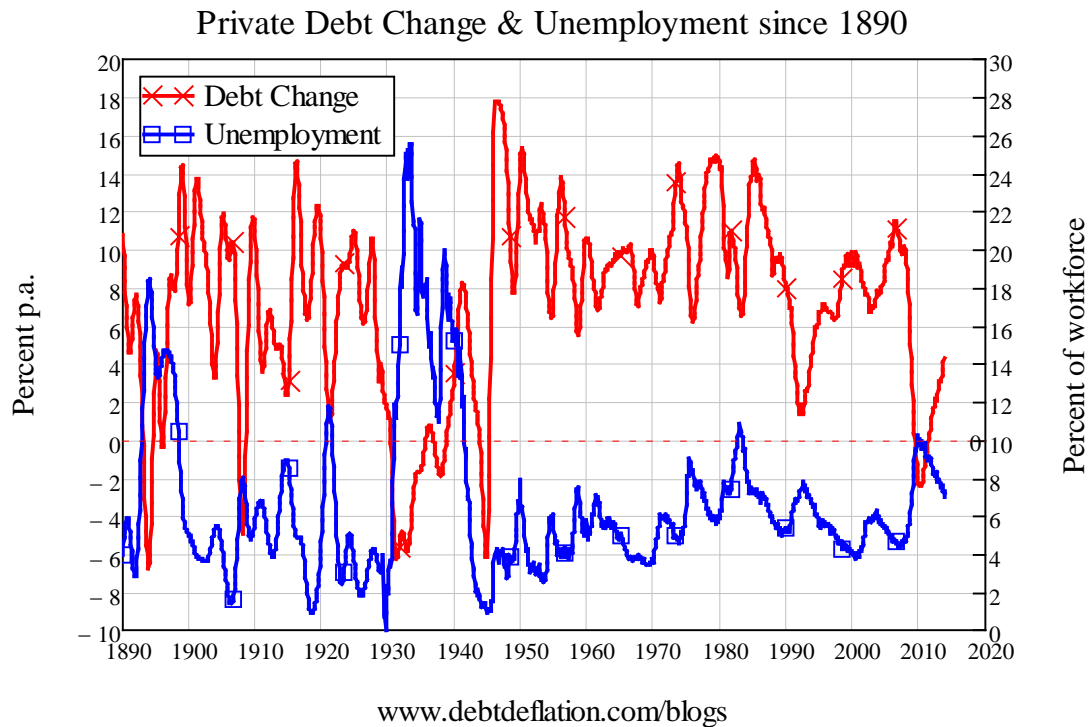
**Figure 4: Long term series on American private debt**



in which individuals' plans and expectations are mutually inconsistent in aggregate. We are talking about a disequilibrium process in which people's plans and expectations get revised in the light of the surprises that occur because of that mutual inconsistency." I see both these as positive developments, but the habitual methods of Neoclassical economics may mean that these developments will not last.

<sup>3</sup> Defined as the change in the change in debt over a year (to crudely smooth the extremely volatile monthly data) divided by nominal GDP at the midpoint of the year.

**Figure 5: Correlation of change in aggregate private debt with unemployment**



Correlation is not causation as the cliché goes, but a correlation coefficient of -0.57 over almost 125 years implies that the change in debt has macroeconomic significance at all times – and not just during either secular stagnation or liquidity traps.

**Table 2: Correlation of change in aggregate private debt with unemployment by decade**

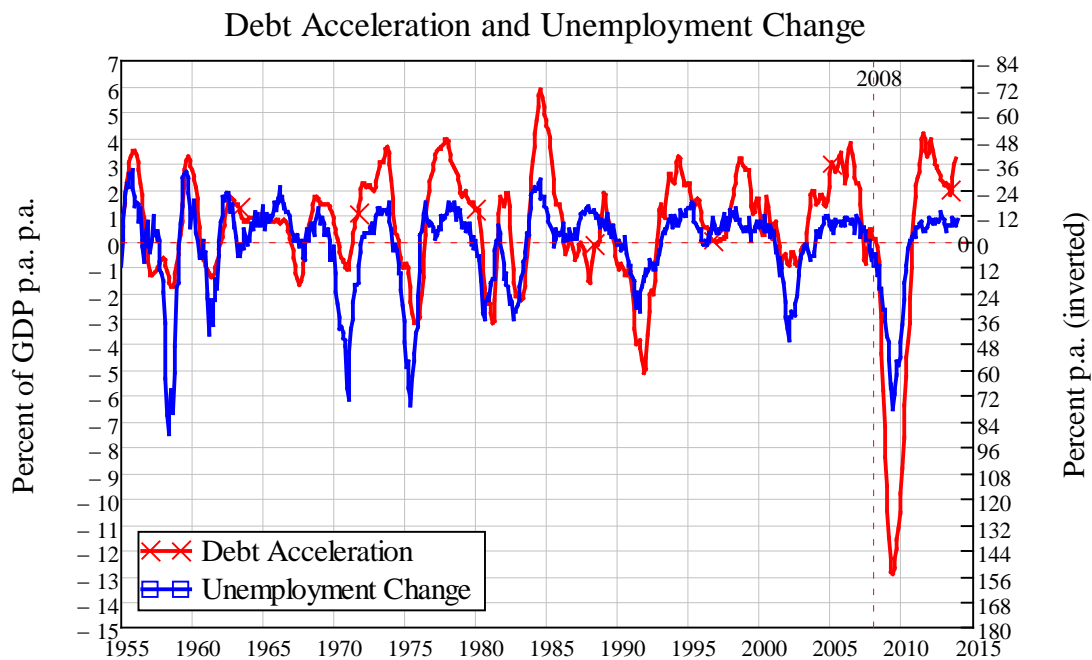
Start	End	Correlation with level of unemployment	
		Percentage change	Change as percent of GDP
1890	2013	-0.57	-0.51
1890	1930	-0.59	-0.6
1930	1940	-0.36	-0.38
1940	1950	0.15	0.32
1950	1960	-0.48	-0.28
1960	1970	-0.33	-0.58
1970	1980	-0.41	-0.37
1980	1990	-0.27	-0.55
1990	2000	-0.95	-0.95
2000	2013	-0.97	-0.95

Shorter time spans emphasize the point that neither secular stagnation nor liquidity traps can be invoked to explain why changes in the level of private debt have macroeconomic significance. Secular stagnation surely didn't apply between 1890 and 1930, yet the correlation is -0.6; neither secular stagnation nor a liquidity trap applied in the period from 1950 till 1970, yet the correlation is substantial in those years as well.

The correlation clearly jumps dramatically in the period after the Stock Market Crash of 1987, but that is more comfortably consistent with the basic Endogenous Money case that I have been making – that new private debt created by the banking sector adds to aggregate demand – than it will be with any secular-stagnation-augmented Loanable Funds model.

The debt acceleration data (Michael Biggs and Thomas Mayer, 2010, Michael Biggs et al., 2010) hammers this point even further. Figure 6 shows the acceleration of aggregate private sector debt and change in unemployment from 1955 (three years after quarterly data on debt first became available) till now. The correlation between the two series is -0.69.

**Figure 6:** Correlation of acceleration in aggregate private debt with change in unemployment



As with the change in debt and unemployment correlation, shorter time spans underline the message that private debt matters at all times. Though the correlation is strikingly higher since 1987 – a date I emphasize because I believe that Greenspan's actions in rescuing that bubble then led to the Ponzi economy that America has since become – it is high throughout, including in times when neither “secular stagnation” nor a “liquidity trap” can be invoked.

**Table 3: Correlation of acceleration in aggregate private debt with change in unemployment by decade**

Start	End	Correlation
1950	2013	-0.6
1950	1960	-0.53
1960	1970	-0.61
1970	1980	-0.79
1980	1990	-0.6
1990	2000	-0.86
2000	2013	-0.89

I await the IS-LM or New Keynesian DSGE model that Krugman will presumably produce to provide an explanation for the persistence of the crisis in terms that, however tortured, emanate from conventional economic logic in which banks and money are ignored (though private debt is finally considered), and in which everything happens in equilibrium. But however clever it might be, it will not be consistent with the data.

## References

Bernanke, Ben. 2002. "Deflation: Making Sure "It" Doesn't Happen Here," Washington: Federal Reserve Board.

Biggs, Michael and Thomas Mayer. 2010. "The Output Gap Conundrum." *Intereconomics/Review of European Economic Policy*, 45(1), 11-16.

Biggs, Michael; Thomas Mayer and Andreas Pick. 2010. "Credit and Economic Recovery: Demystifying Phoenix Miracles." *SSRN eLibrary*.

Eggertsson, Gauti B. and Paul Krugman. 2012. "Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo Approach." *Quarterly Journal of Economics*, 127, 1469–513.

Krugman, Paul. 2012a. *End This Depression Now!* New York: W.W. Norton.

\_\_\_\_\_. 2012b. "Minsky and Methodology (Wonkish)," *The Conscience of a Liberal*. New York: New York Times.

\_\_\_\_\_. 2013a. "Secular Stagnation Arithmetic," P. Krugman, *The Conscience of a Liberal*. New York: New York Times.

\_\_\_\_\_. 2013b. "Secular Stagnation, Coalmines, Bubbles, and Larry Summers," P. Krugman, *The Conscience of a Liberal*. New York: New York Times.

Lebergott, Stanley. 1986. "Discussion of Romer and Weir Papers." *The Journal of Economic History*, 46(2), 367-71.

\_\_\_\_\_. 1954. "Measuring Unemployment." *The Review of Economics and Statistics*, 36(4), 390-400.

Lucas, Robert E., Jr. 2003. "Macroeconomic Priorities." *American Economic Review*, 93(1), 1-14.

Prescott, Edward C. 1999. "Some Observations on the Great Depression." *Federal Reserve Bank of Minneapolis Quarterly Review*, 23(1), 25-31.

Romer, Christina. 1986. "Spurious Volatility in Historical Unemployment Data." *Journal of Political Economy*, 94(1), 1-37.

Rowe, Nick. 2013. "What Steve Keen Is Maybe Trying to Say," N. Rowe, *Worthwhile Canadian Initiative*. Canada.

**Author contact:** [debunking@gmail.com](mailto:debunking@gmail.com)

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### SUGGESTED CITATION:

Steve Keen, "Secular stagnation and endogenous money", *real-world economics review*, issue no. 66, 13 January 2014, pp. 2-12, <http://www.paecon.net/PAEReview/issue66/Keen66.pdf>

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## Micro vs. macro

Lars Pålsson Syll [Malmö University, Sweden]

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“The most important recent development in macroeconomic theory seems to me describable as the reincorporation of aggregative problems such as inflation and the business cycle within the general framework of ‘microeconomic’ theory. If these developments succeed, the term ‘macroeconomic’ will simply disappear from use and the modifier ‘micro’ will become superfluous. We will simply speak, as did Smith, Ricardo, Marshall and Walras of *economic* theory.” Robert Lucas: *Models of Business Cycles*

### Introduction

Most New Classical and “New Keynesian” macroeconomists today seem to subscribe to a methodological individualist view, according to which the only “rigorous,” “acceptable,” “well-grounded” or “secure” way to do macroeconomics, is to somehow reduce it to microeconomic analysis. Implementing a microfoundationalist programme, these economists believe that macroeconomics is both dispensable and/or basically reducible to microeconomics. Adhering – consciously or not – to a methodological individualist stance, macroeconomic facts are to be explained only in terms of facts about individual agents. Only when we have arrived at explaining macroeconomic phenomena by deriving them from explanatory primary microeconomic “deep parameters” like preferences, tastes, aspirations and beliefs of individuals, have we got adequate explanations.

But as economists, philosophers, historians and methodologists – such as e. g. John King (2012), Alan Nelson (1984), Roy Bhaskar (1989), John Searle (1996), Tony Lawson (1997), Wim Meeusen (2011), James Hartley (1997) and Kevin Hoover (2001, 2009, 2010a, 2010b) – have forcefully argued, there exist overwhelmingly strong reasons for being critical and doubtful *re* methodological individualism and reductionism and the urge for microfoundations of macroeconomics. In this essay I want to elaborate on a couple of them.

Microfoundations today – on the history, significance and interpretation of earlier microfoundationalist programmes, cf. Weintraub (1979), Janssen (2006), Pålsson Syll (2011), King (2012) and Hoover (2010b, 2013) – means more than anything else trying to *reduce* macroeconomics to microeconomics by building macroeconomic models assuming “rational expectations” and hyper-rational “representative agents” optimizing over time. Both are highly questionable assumptions. That a specific theory/method/approach has been established as *the* way of performing economic analysis in the economics community, is not a proof of its validity, as we will see.

The concept of rational expectations was first developed by John Muth (1961) and later applied to macroeconomics by Robert Lucas (1972). Those macroeconomic models building on rational expectations microfoundations that are used today among both New Classical and “New Keynesian” macroeconomists, basically assume that people on average hold

expectations that will be fulfilled. This makes the economist's analysis enormously simplistic, since it means that the model used by the economist is the same as the one people use to make decisions and forecasts of the future.

Rather than assuming that people on average have the same expectations, someone like Keynes for example, would argue that people often have different expectations and information, and that this constitutes the basic rational behind macroeconomic needs of coordination – something that is rather swept under the rug by the extremely simple-mindedness of assuming rational expectations in representative agents models. But if all actors are alike, why do they transact? Who do they transact with? The very reason for markets and exchange seems to slip away with the sister assumptions of representative agents and rational expectations.

### **Microfoundations – when microeconomic modeling becomes the message**

Macroeconomic models building on rational expectations microfoundations impute beliefs to the agents that is not based on any real informational considerations, but simply stipulated to make the models mathematically-statistically tractable. Of course you can make assumptions based on tractability, but then you do also have to take into account the necessary trade-off in terms of the ability to make relevant and valid statements on the intended target system. Mathematical tractability cannot be the ultimate arbiter in science when it comes to modeling real world target systems. One could perhaps accept macroeconomic models building on rational expectations microfoundations if they had produced lots of verified predictions and good explanations. But they have done nothing of the kind. Therefore the burden of proof is on those macroeconomists who still want to use models built on these particular unreal assumptions.

Using models in science usually implies that simplifications have to be made. But it comes at a price. There is always a trade-off between rigour and analytical tractability on the one hand, and relevance and realism on the other. Modern Walrasian macroeconomic models err on the side of rigour and analytical tractability. They fail to meet Einstein's 'Not More So' criterion – thereby making macroeconomics less useful and more simplistic than necessary. Models should be as simple as possible – but 'Not More So.'

If you want the model to fit reality this ought to be rather self-evident. However, when confronting modern Walrasian macroeconomic model builders with this kind of critique, a common strategy used is to actually deny that there ever was any intention of being realistic – the sole purpose of the models are to function as *bench-marks* against which to judge the real world we happen to live in. For someone devoted to the study of economic methodology it is difficult not to express surprise at this unargued and nonsensical view. This is nothing but a new kind of *Nirvana fallacy* – and why on earth should we consider it worthwhile and interesting to make evaluations of real economies based on abstract imaginary fantasy worlds? It's absolutely unwarranted from a scientific point of view. It's like telling physiologists to evaluate the human body from the perspective of unicorns – they wouldn't take you seriously. And it is difficult from a critical realist point of view to come up with any reason whatsoever why we should judge these macroeconomic model builders differently.

In macroeconomic models building on rational expectations microfoundations – where agents are assumed to have complete knowledge of all of the relevant probability distribution

functions – nothing really new happens, since they take for granted that people's decisions can be portrayed as based on an existing probability distribution, which by definition implies the knowledge of every possible event (otherwise it is in a strict mathematical-statistically sense not really a probability distribution at all) that can be thought of taking place.

But in the real world, it is not possible to just assume that probability distributions are the right way to characterize, understand or explain acts and decisions made under uncertainty. When we simply do not know, when we have not got a clue, when genuine uncertainty prevails, macroeconomic models building on rational expectations microfoundations simply will not do. In those circumstances it is not a useful assumption. The main reason being that under those circumstances the future is not like the past, and henceforth, we cannot use the same probability distribution – if it at all exists – to describe both the past and future.

The future is not reducible to a known set of prospects. It is not like sitting at the roulette table and calculating what the future outcomes of spinning the wheel will be. We have to surpass macroeconomic models building on rational expectations microfoundations and instead try to build economics on a more realistic foundation – a foundation that encompasses both risk and genuine uncertainty.

Macroeconomic models building on rational expectations microfoundations emanates from the belief that to be scientific, economics has to be able to model individuals and markets in a stochastic-deterministic way. It's like treating individuals and markets as the celestial bodies studied by astronomers with the help of gravitational laws. Unfortunately, individuals, markets and entire economies are not planets moving in predetermined orbits in the sky.

To deliver macroeconomic models building on rational expectations microfoundations the economists have to constrain expectations on the individual and the aggregate level to be the same. If revisions of expectations take place, they typically have to take place in a known and pre-specified precise way. This squares badly with what we know to be true in real world, where fully specified trajectories of future expectations revisions are non-existent.

Further, most macroeconomic models building on rational expectations microfoundations are time-invariant and *a fortiori* give no room for any changes in expectations and their revisions. The only imperfection of knowledge they admit of is included in the error terms, error terms that are standardly assumed to be linearly additive and to have a given and known frequency distribution, so that the models can still fully pre-specify the future even when incorporating stochastic variables into the models.

In the real world there are many different expectations and these cannot be aggregated in macroeconomic models building on rational expectations microfoundations without giving rise to inconsistency. This is one of the main reasons for these models being modeled as representative agents models. But this is far from being a harmless approximation to reality. Even the smallest differences of expectations between agents would make these models inconsistent, so when they still show up they have to be considered “irrational”.

It is not possible to adequately represent individuals and markets as having one single overarching probability distribution. Accepting that, does not imply that we have to end all theoretical endeavours and assume that all agents always act totally irrationally and only are analyzable within behavioural economics. Far from it. It means we acknowledge diversity and

imperfection, and that macroeconomics has to be able to incorporate these empirical facts in its models.

Most models in science are representations of something else. Models “stand for” or “depict” specific parts of a “target system” (usually the real world). A model that has neither surface nor deep resemblance to important characteristics of real economies ought to be treated with *prima facie* suspicion. How could we possibly learn about the real world if there are no parts or aspects of the model that have relevant and important counterparts in the real world target system? The burden of proof lays on the macroeconomists thinking they have contributed anything of scientific relevance without even hinting at any bridge enabling us to traverse from model to reality. All theories and models have to use sign vehicles to convey some kind of content that may be used for saying something of the target system. But purpose-built assumptions made solely to secure a way of reaching deductively validated results in mathematical models, are of little value if they cannot be validated outside of the model. Assuming away problems – rather than solving them – is not a scientific approach. As Kevin Hoover (2010a:346) writes:

“The idea that macroeconomics not only needs microfoundations, but that microeconomics can replace macroeconomics completely is the dominant position in modern economics. No one, however, knows how to derive empirically relevant explanations of observable aggregate relations from the precise individual behaviors that generate them. Instead, the claims to have produced microfoundations are typically fleshed out with representative agent models in which a single agent treats the aggregates as objects of direct choice, playing by rules that appear to follow the logic and mathematics of microeconomics...

I accept idealization as a strategy of model building. But legitimate idealization requires that the idealized model capture the essence of the causal structure or underlying mechanisms at work. It is only on that basis that we can trust the model to analyze situations other than the data to hand... Yet, the trick of using models appropriately is that we should either be able to set aside these particularities in reasoning or show that the results of interest are robust to the range of particular forms that we might reasonably assume...

The essence of the criticism of the common strategies of reducing microeconomics to macroeconomics is that it is based in model building that mixes legitimate idealizations with non-ideal, particular modeling assumptions and then relies on those assumptions at critical junctures in providing the derivation of the macroeconomic relationships from microeconomic behaviors.”

All empirical sciences use simplifying or unrealistic assumptions in their modeling activities. That is no longer the issue – as long as the assumptions made are not unrealistic in the wrong way or for the wrong reasons.

Theories are difficult to directly confront with reality. Economists therefore build models of their theories. Those models are *representations* that are *directly* examined and manipulated to *indirectly* say something about the target systems. But being able to model a world that

somehow could be considered real or *similar* to the real world is not the same as investigating the real world. Even though all theories are false, since they simplify, they may still possibly serve our pursuit of truth. But then they cannot be unrealistic or false in *any* way. The falsehood or “unrealisticness” has to be qualified.

Microfounded macromodels should enable us to posit counterfactual questions about what would happen if some variable was to change in a specific way (hence the assumption of structural invariance, that purportedly enables the theoretical economist to do just that). But do they? Applying a “Lucas critique” on most microfounded macromodels, it is obvious that they fail. Changing “policy rules” cannot just be presumed not to influence investment and consumption behaviour and *a fortiori* technology, thereby contradicting the invariance assumption. Technology and tastes cannot live up to the status of an economy’s deep and structurally stable Holy Grail. They too are part and parcel of an ever-changing and open economy.

Without export certificates, models and theories should be considered unsold. Unfortunately this understanding has not informed modern neoclassical economics, as can be seen by the profuse use of representative agent models. For quite some time now, it has been a common feature of modern neoclassical macroeconomics to use simple dynamic stochastic general equilibrium – DSGE – models where representative agents are supposed to act in a world characterized by complete knowledge, zero transaction costs and complete markets.

In these models, the actors are all identical. This has, of course, far-reaching analytical implications. Situations characterized by asymmetrical information – situations most of us consider to be innumerable – cannot arise in such models. If the aim is to build a macro-analysis from micro-foundations in this manner, the relevance of the procedure is highly questionable – Robert Solow (2010) even considered the claims made by protagonists of representative agent models “generally phony”.

One obvious critique – cf. Pålsson Syll (2001) – is that representative agent models do not incorporate distributional effects – effects that often play a decisive role in macroeconomic contexts. Investigations into the operations of markets and institutions usually find that there are overwhelming problems of coordination. These are difficult, not to say impossible, to analyze with the kind of Robinson Crusoe models that, e. g., real business cycle theorists employ and which exclude precisely those differences between groups of actors that are the driving force in many non-neoclassical analyses.

The choices of different individuals have to be shown to be coordinated and consistent. This is obviously difficult if the macroeconomic models don’t give room for heterogeneous individuals (this lack of understanding the importance of heterogeneity is perhaps especially problematic for the modeling of real business cycles in dynamic stochastic general equilibrium models). Assuming away the heterogeneity that exists at an individual level by using representative agent models, are certainly more manageable, however, from a realist point of view, these models are also less relevant and have a lower explanatory potential. As Kevin Hoover (2009:405) writes:

“The irony of the program of microfoundations is that, in the name of preserving the importance of individual intentional states and preserving the individual economic agent as the foundation of economics, it fails to provide any intelligible connection between the individual and the aggregate. Instead,

it embraces the representative agent, which is as close to an untethered Hegelian World (or Macroeconomic) Spirit as one might fear in the microfoundationist's worst nightmare."

Or as Robert Gordon (2009:25-26) has it:

"In the end, the problem with modern macro is that it contains too much micro and not enough macro. Individual representative agents assume complete and efficient markets and market clearing, while the models ignore the basic macro interactions implied by price stickiness, including macro externalities and coordination failures. In an economy-wide recession, most agents are not maximizing unconditional utility functions as in DSGE models but are maximizing, i.e., trying to make the best out of a bad situation, under biting income and liquidity constraints. Perceptive comments by others as cited above reject the relevance of modern macro to the current cycle of excess leveraging and subsequent deleveraging, because complete and efficient markets are assumed, and there is no room for default, bankruptcy, insolvency, and illiquidity."

Both the "Lucas critique" and Keynes' critique of econometrics argued that it was inadmissible to project history on the future. Consequently an economic policy cannot presuppose that what has worked before, will continue to do so in the future. That macroeconomic models could get hold of correlations between different "variables" was not enough. If they could not get at the causal structure that generated the data, they were not really "identified". Lucas himself drew the conclusion that the problem with unstable relations was to construct models with clear microfoundations, where forward-looking optimizing individuals and robust, deep, behavioural parameters are seen to be stable even to changes in economic policies.

The purported strength of New Classical and "New Keynesian" macroeconomics is that they have firm anchorage in preference based microeconomics, and especially the decisions taken by intertemporal utility maximizing "forward looking" individuals. To some of us, however, this has come at too high a price. The almost quasi-religious insistence that macroeconomics has to have microfoundations – without ever presenting neither ontological nor epistemological justifications for this claim – has put a blind eye to the weakness of the whole enterprise of trying to depict a complex economy based on an all-embracing representative agent equipped with superhuman knowledge, forecasting abilities and forward-looking rational expectations. It is as if – after having swallowed the sour grapes of the Sonnenschein-Mantel-Debreu-theorem – these economists want to resurrect the omniscient Walrasian auctioneer in the form of all-knowing representative agents equipped with rational expectations and assumed to somehow know the true structure of our model of the world. How that could even be conceivable is beyond imagination, given that the ongoing debate on microfoundations, if anything, shows that not even we, the economists, can come to agreement on a common model.

## Microfoundations – Walrasian “Santa Claus” economics trying to get around Sonnenschein-Mantel-Debreu

Almost a century and a half after Léon Walras founded neoclassical general equilibrium theory, economists still have not been able to show that markets *move* economies *to* equilibria. What we do know is that unique Pareto-efficient equilibria do *exist*.

But what good does that do? As long as we cannot show, except under exceedingly unrealistic assumptions, that there are convincing reasons to suppose there are forces which lead economies to equilibria - the value of general equilibrium theory is next to nil. As long as we cannot really demonstrate that there are forces operating – under reasonable, relevant and at least mildly realistic conditions – at moving markets to equilibria, there cannot really be any sustainable reason for anyone to pay any interest or attention to this theory. A stability that can only be proved by assuming “Santa Claus” conditions is of no avail. Most people do not believe in Santa Claus anymore. And for good reasons.

Simply assuming the problem away or continuing to model a world full of agents behaving as economists – “often wrong, but never uncertain” – and still not being able to show that the system under reasonable assumptions converges to equilibrium, is a gross misallocation of intellectual resources and time.

Here’s what a leading microeconomist – Alan Kirman (1989:129) – writes on the issue:

“Starting from ‘badly behaved’ individuals, we arrive at a situation in which not only is aggregate demand a nice function but, by a result of Debreu, equilibrium will be ‘locally unique’. Whilst this means that at least there is some hope for local stability, the real question is, can we hope to proceed and obtain global uniqueness and stability?

The unfortunate answer is a categorical no! [The results of Sonnenschein (1972), Debreu (1974), Mantel (1976) and Mas Collé (1985)] shows clearly why any hope for uniqueness or stability must be unfounded... There is no hope that making the distribution of preferences or income ‘not too dispersed’ or ‘single peaked’ will help us to avoid the fundamental problem.

The idea that we should start at the level of the isolated individual is one which we may well have to abandon... we should be honest from the outset and assert simply that *by assumption* we postulate that each sector of the economy behaves as one individual and not claim any spurious microjustification...

Economists therefore should not continue to make strong assertions about this behaviour based on so-called general equilibrium models which are, in reality, no more than special examples with no basis in economic theory as it stands.”

Kenneth Arrow (1968) argues in a similar vein against the kind of reductionism implied in the microfoundationalist attempts at redirecting economics:

“The economy is irreducible... in the sense that no matter how the households are divided into two groups, an increase in the initial assets held by the members of one group can be used to make feasible an allocation which will make no one worse off and at least one individual in the second group better off.

It is perhaps interesting to observe that ‘atomistic’ assumptions concerning individual households and firms are not sufficient to establish the existence of equilibrium; “global” assumptions ... are also needed (though they are surely unexceptionable). Thus, a limit is set to the tendency implicit in price theory, particularly in its mathematical versions, to deduce all properties of aggregate behavior from assumptions about individual economic agents.”

Getting around Sonnenschein-Mantel-Debreu using representative agents may be – as noted by Meeusen (2011) – very expedient from a purely formalistic point of view. But from a scientific point of view it is hardly relevant or realistic. As Rizvi (1994:363) maintains:

“The impact of SMD theory is quite general... Its chief implication, in the authors view, is that the hypothesis of individual rationality, and the other assumptions made at the micro level, gives no guidance to an analysis of macro-level phenomena: the assumption of rationality or utility maximisation is not enough to talk about social regularities. This is a significant conclusion and brings the microfoundations project in GET [General Equilibrium Theory] to an end... A theory based on micro principles or on appeals to them and which purports to analyse micro-level regularities *must* deal with aggregation; not doing so is not an option.”

In microeconomics we know that (ideal) aggregation really presupposes homothetic identical preferences, something that almost never exist in real economies – if they do, it means that you and multi-billionaire Richard Branson have the same preferences and that we after having had, e. g. a 99 % “haircut,” still spend the same proportion of our incomes on, e. g. bread and butter, as before the massive income reduction.

To illustrate – following Nelson (1984) and Hoover (2001) – assume we have a very simple economy consisting of two consumers (i) trying to optimally choose consuming two commodities ( $c^i_1$  and  $c^i_2$ ) in two time periods by maximizing a logarithmic Cobb-Douglas utility function of the form  $u^i = c^i_1 + a^i c^i_2$ , given the (always satisfied) budget constraint  $y = c^i_1 + p c^i_2$  (where  $y$  is income and  $p$  the price of commodity 2 in terms of the numéraire, commodity 1). Demand for commodity 1 is:

$$(1) \quad c^i_1 = y^i / (1 + a^i).$$

Aggregating (indicated by upper-case letters) the demand for commodity 1 we get:

$$(2) \quad C_1 = Y / (1 + a) = c^1_1 + c^2_1 = y^1 / (1 + a^1) + y^2 / (1 + a^2) = [y^1 (1 + a^1) + y^2 (1 + a^2)] / [(1 + a^1)(1 + a^2)] \\ = [Y + a^1 y^1 + a^2 y^2] / [(1 + a^1)(1 + a^2)],$$

where the last equality follows from  $Y = y^1 + y^2$ . As can easily be seen, (1) and (2) are only of an identical form if all consumers have identical preferences – that is,  $a^1 = a^2 = a$  – and homothetic utility functions yielding linear Engel curves, as e. g. the Cobb-Douglas utility function.

If these requirements are fulfilled, ideal aggregation from micro to macro can take place. Why? As Hoover (2001:79) puts it:

“In such circumstances, for a fixed aggregate income, redistributing that income among the individual consumers will not affect demands for individual goods and, therefore, will not affect relative prices ... and we can add up individual quantities to form economy-wide aggregates without loss of information.”

However, if these patently unreal assumptions are *not* fulfilled, there is no guarantee of a straightforward and constant relation between individuals (micro) and aggregates (macro). The results given by these assumptions are *a fortiori* not robust and do not capture the underlying mechanisms at work in any real economy. And as if this impossibility of ideal aggregation was not enough, there are obvious problems also with the kind of microeconomic equilibrium that one tries to reduce macroeconomics to. Decisions of consumption and production are described as choices made by a single agent. But then, who sets the prices on the market? And how do we justify the assumption of universal consistency between the choices? Models that are critically based on particular and odd assumptions – and are neither robust nor congruent to real world economies – are of questionable value.

And is it really possible to describe and analyze all the deliberations and choices made by individuals in an economy? Does not the choice of an individual presuppose knowledge and expectations about choices of other individuals? It probably does, and this presumably helps to explain why representative agent models have become so popular in modern macroeconomic theory. They help to make the analysis more tractable.

One could justifiably argue that one might just as well accept that it is not possible to coherently reduce macro to micro, and accordingly that it is perhaps necessary to forswear microfoundations and the use of rational-agent models all together. Microeconomic reasoning has to build on macroeconomic presuppositions. Real individuals do not base their choices on operational general equilibrium models, but rather use simpler models. *If macroeconomics needs microfoundations it is equally necessary that microeconomics needs macrofoundations.*

### **On the impossibility of microfoundational reductionism**

Alan Kirman (1992) maintains that the use of representative agent models is unwarranted and leads to conclusions that are usually both misleading and false. It's a fiction basically used by some macroeconomists to justify the use of equilibrium analysis and a kind of pseudo-microfoundations. Microeconomists are well aware that the conditions necessary to make aggregation to representative agents possible are not met in actual economies. As economic models become increasingly complex, their use also becomes less credible.

Already back in the 1930s, Keynes (1939) held a similar anti-reductionist view:

"I have called my theory a *general* theory. I mean by this that I am chiefly concerned with the behaviour of the economic system as a whole, – with aggregate incomes, aggregate profits, aggregate output, aggregate employment, aggregate investment, aggregate saving rather than with the incomes, profits, output, employment, investment and saving of particular industries, firms or individuals. And I argue that important mistakes have been made through extending to the system as a whole conclusions which have been correctly arrived at in respect of a part of it taken in isolation ...

Quite legitimately we regard an individual's income as independent of what he himself consumes and invests. But this, I have to point out, should not have led us to overlook the fact that the demand arising out of the consumption and investment of one individual is the source of the incomes of other individuals, so that incomes in general are not independent, quite the contrary, of the disposition of individuals to spend and invest; and since in turn the readiness of individuals to spend and invest depends on their incomes, a relationship is set up between aggregate savings and aggregate investment which can be very easily shown, beyond any possibility of reasonable dispute, to be one of exact and necessary equality. Rightly regarded this is a banale conclusion."

Actually, Keynes way back in 1926 [Keynes 1933(1926)] more or less buried any ideas of microfoundations:

"The atomic hypothesis which has worked so splendidly in Physics breaks down in Psychics. We are faced at every turn with the problems of Organic Unity, of Discreteness, of Discontinuity – the whole is not equal to the sum of the parts, comparisons of quantity fails us, small changes produce large effects, the assumptions of a uniform and homogeneous continuum are not satisfied. Thus the results of Mathematical Psychics turn out to be derivative, not fundamental, indexes, not measurements, first approximations at the best; and fallible indexes, dubious approximations at that, with much doubt added as to what, if anything, they are indexes or approximations of."

Where "New Keynesian" and New Classical economists think they can rigorously deduce the aggregate effects of the acts and decisions of consumers and firms with their reductionist microfoundational methodology, they actually have to put a blind eye on the emergent properties that characterize all open social and economic systems. The interaction between animal spirits, trust, confidence, institutions etc., cannot be deduced or reduced to a question answerable on the individual level. Macroeconomic structures and phenomena have to be analyzed on their own terms.

Contrary to the microfoundational programme of Lucas *et consortes*, Keynes didn't consider equilibrium as the self-evident axiomatic starting point for economic analysis. Actually it was the classical idea of equilibrium that had made economics blind to the obvious real fact that involuntary outcomes, such as unemployment, are a common feature of market economies – and Keynes wanted to develop a more realist alternative, breaking with the conception of economics as an equilibrium discipline.

Even if economies naturally presuppose individuals, it does not follow that we can infer or explain macroeconomic phenomena solely from knowledge of these individuals. Macroeconomics is to a large extent emergent and cannot be reduced to a simple summation of micro phenomena. Moreover, as we have already argued, even these microfoundations aren't immutable. Lucas and the new classical economists' deep parameters – “tastes” and “technology” – are not really the bedrock of constancy that they believe (pretend) them to be. For Alfred Marshall economic theory was “an engine for the discovery of concrete truth”. But where Marshall tried to describe the behaviour of a typical business with the concept “representative firm,” his modern heirs don't at all try to describe how firms interplay with other firms in an economy. The economy is rather described “as if” consisting of one single giant firm/consumer/household – either by inflating the optimization problem of the individual to the scale of a whole economy, or by assuming that it's possible to aggregate different individuals' actions by a simple summation, since every type of actor is identical. But it would most probably be better if we just faced the fact that it is difficult to describe interaction and cooperation when there is essentially only one actor – instead of sweeping aggregation problems, fallacies of composition and emergence under the rag.

Those who want to build macroeconomics on microfoundations usually maintain that the only robust policies and institutions are those based on rational expectations and representative agents. But there is really no support for this conviction at all. On the contrary – if we want to have anything of interest to say on real economies, financial crisis and the decisions and choices real people make, it is high time to redirect macroeconomics away from constructing models building on representative agents and rational expectations-microfoundations. Since representative-agent-rational-expectations (RARE) microfounded macroeconomics has nothing to say about the real world and the economic problems out there, why should we care about it? The final court of appeal for macroeconomic models is the real world, and as long as no convincing justification is put forward for how the inferential bridging *de facto* is made, macroeconomic modelbuilding is little more than hand waving that give us rather little warrant for making inductive inferences from models to real world target systems. Even though equilibrium according to Lucas (Snowdon 1998:127) is considered “a property of the way we look at things, not a property of reality,” this is hardly a tenable view. Analytical tractability should not be transformed into a methodological virtue. If substantive questions about the real world are being posed, it is the formalistic-mathematical representations utilized to analyze them that have to match reality, not the other way around.

Given that, I would say that macroeconomists - especially “Keynesian” ones – ought to be even *more* critical of the microfoundations dogma than they are. If macroeconomic models – no matter of what ilk – build on microfoundational *assumptions* of representative agents, rational expectations, market clearing and equilibrium, and we *know* that real people and markets cannot be expected to obey these assumptions, the warrants for supposing that conclusions or hypotheses of causally relevant mechanisms or regularities can be bridged, are obviously non-justifiable. Incompatibility between actual behaviour and the behaviour in macroeconomic models building on RARE microfoundations shows the futility of trying to represent real-world economies with models flagrantly at odds with reality.

In the conclusion to his book *Models of Business Cycles* Robert Lucas (1987:66-108) (in)famously wrote:

“It is remarkable and, I think, instructive fact that in nearly 50 years that Keynesian tradition has produced not one useful model of the individual

unemployed worker, and no rationale for unemployment insurance beyond the observation that, in common with countercyclical cash grants to corporations or to anyone else, it has the effects of increasing the total volume of spending at the right times. By dogmatically insisting that unemployment be classed as ‘involuntary’ this tradition simply cut itself off from serious thinking about the actual options unemployed people are faced with, and hence from learning anything about how the alternative social arrangements might improve these options ...

If we are honest, we will have to face the fact that at any given time there will be phenomena that are well-understood from the point of view of the economic theory we have, and other phenomena that are not. We will be tempted, I am sure, to relieve the discomfort induced by discrepancies between theory and facts by saying the ill-understood facts are the province of some other, different kind of economic theory. Keynesian ‘macroeconomics’ was, I think, a surrender (under great duress) to this temptation. It led to the abandonment, for a class of problems of great importance, of the use of the only ‘engine for the discovery of truth’ that we have in economics.”

Thanks to latter-day Lucasian New-Classical-New-Keynesian-RARE-microfoundations-economists, we are supposed not to – as our “primitive” ancestors – use that archaic term ‘macroeconomics’ anymore (with the possible exception of warning future economists not to give in to “discomfort.”) Being intellectually heavily indebted to the man who invented macroeconomics – Keynes – I firmly decline to concur.

Microfoundations – and *a fortiori* rational expectations and representative agents – serve a particular theoretical purpose. And as the history of macroeconomics during the last thirty years has shown, the Lucasian microfoundations programme for macroeconomics is only methodologically consistent within the framework of a (deterministic or stochastic) general equilibrium analysis. In no other context has it been considered *possible* to incorporate this kind of microfoundations – with its “forward-looking optimizing individuals” – into macroeconomic models.

This is of course not by accident. General equilibrium theory is basically nothing else than an endeavour to consistently generalize the microeconomics of individuals and firms on to the macroeconomic level of aggregates. *But it obviously doesn't work*. The analogy between microeconomic behaviour and macroeconomic behaviour is misplaced. Empirically, science-theoretically and methodologically, neoclassical microfoundations for macroeconomics are defective. Tenable foundations for macroeconomics really have to be sought for elsewhere.

### **Microfounded DSGE models – spectacularly useless and positively harmful**

Economists working within the Post Keynesian tradition, have always maintained that there is a strong risk that people may find themselves unemployed in a market economy. And, of course, unemployment is also something that can take place in microfounded DSGE models – but the mechanism in these models is of a fundamentally different kind.

In the basic DSGE models the labour market is always *cleared* – responding to a changing interest rate, expected life time incomes, or real wages, the representative agent maximizes the utility function by varying her labour supply, money holding and consumption over time. Most importantly – if the real wage somehow deviates from its “equilibrium value,” the representative agent adjust her labour supply, so that when the real wage is higher than its “equilibrium value,” labour supply is increased, and when the real wage is below its “equilibrium value,” labour supply is decreased.

In this model world, unemployment is always an optimal choice to changes in the labour market conditions. Hence, unemployment is totally voluntary. To be unemployed is something one optimally chooses to be.

Although this picture of unemployment as a kind of self-chosen optimality, strikes most people as utterly ridiculous, there are also, unfortunately, a lot of neoclassical economists out there who still think that price and wage rigidities are the prime movers behind unemployment. What is even worse is that some of them even think that these rigidities are the reason John Maynard Keynes gave for the high unemployment of the Great Depression. This is of course pure nonsense. For, although Keynes in *General Theory* devoted substantial attention to the subject of wage and price rigidities, he certainly *did not* hold this view. That's rather the view of microfounded DSGE modelers, explaining variations in employment (and *a fortiori* output) with assuming nominal wages being more flexible than prices – disregarding the lack of empirical evidence for this rather counterintuitive assumption.

Since unions/workers, contrary to classical assumptions, make wage-bargains in nominal terms, they will – according to Keynes – accept lower real wages caused by higher prices, but resist lower real wages caused by lower nominal wages. However, Keynes held it incorrect to attribute “cyclical” unemployment to this diversified agent behaviour. During the depression money wages fell significantly and – as Keynes noted – unemployment still grew. Thus, even when nominal wages are lowered, they do not generally lower unemployment.

In any specific labour market, lower wages could, of course, raise the demand for labour. But a general reduction in money wages would leave real wages more or less unchanged. The reasoning of the classical economists was, according to Keynes, a flagrant example of the *fallacy of composition*. Assuming that since unions/workers in a specific labour market could negotiate real wage reductions via lowering nominal wages, unions/workers in general could do the same, the classics confused micro with macro.

Lowering nominal wages could not – according to Keynes – clear the labour market. Lowering wages – and possibly prices – could, perhaps, lower interest rates and increase investment. But to Keynes it would be much easier to achieve that effect by increasing the money supply. In any case, wage reductions was not seen by Keynes as a general substitute for an expansionary monetary or fiscal policy. And even if potentially positive impacts of lowering wages exist, there are also more heavily weighing negative impacts – management-union relations deteriorating, expectations of on-going lowering of wages causing delay of investments, debt deflation et cetera.

So, what Keynes actually did argue in *General Theory*, was that the classical proposition that lowering wages would lower unemployment and ultimately take economies out of depressions, was ill-founded and basically wrong. To Keynes (1936:7-16), flexible wages would only make things worse by leading to erratic price-fluctuations. The basic explanation

for unemployment is insufficient aggregate demand, and that is mostly determined *outside* the labour market:

“The classical school [maintains that] while the demand for labour at the existing money-wage may be satisfied before everyone willing to work at this wage is employed, this situation is due to an open or tacit agreement amongst workers not to work for less, and that if labour as a whole would agree to a reduction of money-wages more employment would be forthcoming. If this is the case, such unemployment, though apparently involuntary, is not strictly so, and ought to be included under the above category of ‘voluntary’ unemployment due to the effects of collective bargaining, etc...”

The classical theory... is best regarded as a theory of distribution in conditions of full employment. So long as the classical postulates hold good, unemployment, which is in the above sense involuntary, cannot occur. Apparent unemployment must, therefore, be the result either of temporary loss of work of the ‘between jobs’ type or of intermittent demand for highly specialised resources or of the effect of a trade union ‘closed shop’ on the employment of free labour. Thus writers in the classical tradition, overlooking the special assumption underlying their theory, have been driven inevitably to the conclusion, perfectly logical on their assumption, that apparent unemployment (apart from the admitted exceptions) must be due at bottom to a refusal by the unemployed factors to accept a reward which corresponds to their marginal productivity...

Obviously, however, if the classical theory is only applicable to the case of full employment, it is fallacious to apply it to the problems of involuntary unemployment – if there be such a thing (and who will deny it?). The classical theorists resemble Euclidean geometers in a non-Euclidean world who, discovering that in experience straight lines apparently parallel often meet, rebuke the lines for not keeping straight – as the only remedy for the unfortunate collisions which are occurring. Yet, in truth, there is no remedy except to throw over the axiom of parallels and to work out a non-Euclidean geometry. Something similar is required to-day in economics. We need to throw over the second postulate of the classical doctrine and to work out the behaviour of a system in which involuntary unemployment in the strict sense is possible.”

People calling themselves “New Keynesians” ought to be rather embarrassed by the fact that the kind of microfounded DSGE models they use, cannot incorporate such a basic fact of reality as involuntary unemployment. Of course, working with representative agent models, this should come as no surprise. The kind of unemployment that occurs is voluntary, since it is only adjustments of the hours of work that these optimizing agents make to maximize their utility.

Kevin Hoover (2001:82-86) – who has been scrutinizing the microfoundations programme for now more than 25 years – writes:

“Given what we know about representative-agent models, there is not the slightest reason for us to think that the conditions under which they should work are fulfilled. The claim that representative-agent models provide microfoundations succeeds only when we steadfastly avoid the fact that representative-agent

models are just as aggregative as old-fashioned Keynesian macroeconometric models. They do not solve the problem of aggregation; rather they assume that it can be ignored. While they appear to use the mathematics of microeconomics, the subjects to which they apply that microeconomics are aggregates that do not belong to any agent. There is no agent who maximizes a utility function that represents the whole economy subject to a budget constraint that takes GDP as its limiting quantity. This is the simulacrum of microeconomics, not the genuine article...

[W]e should conclude that what happens to the microeconomy is relevant to the macroeconomy but that macroeconomics has its own modes of analysis ... [I]t is almost certain that macroeconomics cannot be euthanized or eliminated. It shall remain necessary for the serious economist to switch back and forth between microeconomics and a relatively autonomous macroeconomics depending upon the problem in hand."

### **Alternatives to microfoundations**

Defenders of microfoundations – and its concomitant rational expectations equipped representative agent's intertemporal optimization – often argue as if sticking with simple representative agent macroeconomic models doesn't impart a bias to the analysis. It's difficult not to reject such an unsubstantiated view.

Economists defending the microfoundationalist programme often also maintain that there are no methodologically coherent alternatives to microfoundations modeling – economic models based on the choices and acts of individuals is the only scientific game in town. That allegation is of course difficult to evaluate, but as argued in this essay, the kind of microfoundationalist macroeconomics that New Classical economists and "New Keynesian" economists are pursuing, is certainly *not* methodologically coherent. And that ought to be rather embarrassing for those ilk of macroeconomists to whom axiomatics and deductivity is the hallmark of science *tout court*.

The fact that Lucas introduced rational expectations as a consistency axiom is not really an argument for why we should accept it as an acceptable assumption in a theory or model purporting to explain real macroeconomic processes. And although virtually any macroeconomic empirical claim is contestable, the same goes for microeconomics.

Of course there are alternatives to neoclassical general equilibrium microfoundations – behavioural economics and Frydman & Goldberg's (2007) "imperfect knowledge" economics being two noteworthy examples that easily come to mind. And for those who have not forgotten the history of our discipline – and who have not bought the sweet-water nursery tale of Lucas *et consortes* that Keynes was not "serious thinking" – it can easily be seen that there exists a macroeconomic tradition inspired by Keynes that has precious little to do with any New Synthesis or "New Keynesianism."

Its ultimate building-block is the perception of genuine uncertainty and that people often "simply do not know." Real actors can't know everything and their acts and decisions are not simply possible to sum or aggregate without the economist risking to succumb to the fallacy of composition. Instead of basing macroeconomics on unreal and unwarranted generalizations

of microeconomic behaviour and relations, it is far better to accept the ontological fact that the future to a large extent is uncertain, and rather conduct macroeconomics on this fact of reality.

## Conclusion

Henry Louis Mencken once wrote that “there is always an easy solution to every human problem – neat, plausible and wrong.” Assuming instant and unmodeled market clearing and/or approximating aggregate behaviour with unrealistically heroic assumptions of intertemporally optimizing rational-expectations-representative-agents, just will not do. The assumptions made, surreptitiously eliminate the very phenomena we want to study: uncertainty, disequilibrium, structural instability and problems of aggregation and coordination between different individuals and groups. Reducing macroeconomics to microeconomics, and microeconomics to refinements of hyper-rational Bayesian deductivist models, is not a viable way forward. It will only sentence to irrelevance the most interesting real world economic problems. Murder is probably the only way of reducing biology to chemistry – and disregarding Sonnenschein-Mantel-Debreu and trying to reduce macroeconomics to Walrasian general equilibrium microeconomics – basically means committing the same crime. Commenting on the state of standard modern macroeconomics, Willem Buiter (2009) argues that neither New Classical nor “New Keynesian” microfounded DSGE macro models has helped us foresee, understand or craft solutions to the problems of today’s economies:

“Most mainstream macroeconomic theoretical innovations since the 1970s... have turned out to be self-referential, inward-looking distractions at best. Research tended to be motivated by the internal logic, intellectual sunk capital and aesthetic puzzles of established research programmes rather than by a powerful desire to understand how the economy works...

Both the New Classical and New Keynesian complete markets macroeconomic theories not only did not allow questions about insolvency and illiquidity to be answered. They did not allow such questions to be asked...

Charles Goodhart, who was fortunate enough not to encounter complete markets macroeconomics and monetary economics during his impressionable, formative years, but only after he had acquired some intellectual immunity, once said of the Dynamic Stochastic General Equilibrium approach which for a while was the staple of central banks’ internal modelling: ‘It excludes everything I am interested in’. He was right. It excludes everything relevant to the pursuit of financial stability.”

Buiter’s verdict is a worrying confirmation of neoclassical mainstream macroeconomics becoming more and more a “waste of time”. Why do these economists waste their time and efforts on it? Besides aspirations of being published, Frank Hahn (2005) probably gave the truest answer, when interviewed on the occasion of his 80th birthday, he confessed that some economic assumptions didn’t really say anything about “what happens in the world,” but still had to be considered very good “because it allows us to get on this job.”

The real macroeconomic challenge is to accept uncertainty and still try to explain why economic transactions take place – instead of simply conjuring the problem away by assuming uncertainty to be reducible to stochastic risk and disregarding the obvious ontological and methodological problems inherent in the individualist-reductionist microfoundations programme. That is scientific cheating. And it has been going on for too long now.

The Keynes-inspired building-blocks are there. But it is admittedly a long way to go before the whole construction is in place. But the sooner we are intellectually honest and ready to admit that modern neoclassical macroeconomics and its microfoundationalist programme has come to way's end – the sooner we can redirect our aspirations to more fruitful endeavours.

## References

- Arrow, Kenneth (1968). "Economic Equilibrium." *International Encyclopedia of the Social Sciences*.
- Bhaskar, Roy (1989). *The possibility of naturalism: a philosophical critique of the contemporary human sciences*. 2. ed. New York: Harvester Wheatsheaf.
- Buiter, Willem (2009). "The unfortunate uselessness of most 'state of the art' academic monetary economics." *Financial Times*, Blog FT.com/Maverecon.
- Frydman, Roman and Michael Goldberg (2007). *Imperfect Knowledge Economics*. Princeton: Princeton University Press.
- Gordon, Robert J. (2009). "Is Modern Macro or 1978-era Macro More Relevant To the Understanding of the Current Economic Crisis?"  
[http://faculty-web.at.northwestern.edu/economics/gordon/GRU\\_Combined\\_090909.pdf](http://faculty-web.at.northwestern.edu/economics/gordon/GRU_Combined_090909.pdf)
- Hahn, Frank (2005). "An interview with Frank Hahn on the occasion of his 80th birthday." *Storia del pensiero economico* 2.
- Hartley, James (1997). *The representative agent in macroeconomics*. London: Routledge.
- Hoover, Kevin (2001). *The methodology of empirical macroeconomics*. Cambridge: Cambridge University Press.
- (2009). "Microfoundations and the ontology of macroeconomics," in H. Kincaid and D. Ross (eds), *The Oxford Handbook of Philosophy of Economics*, Oxford: Oxford University Press.
- (2010a). "Microfoundational Programs" (January 14, 2010).  
<http://dx.doi.org/10.2139/ssrn.1562282>
- (2010b). "Idealizing Reduction: The Microfoundations of Macroeconomics ." *Erkenntnis* 73.
- (2013). "Foundations or Bridges? A Review of J.E. King's the Microfoundations Delusion: Metaphor and Dogma in the History of Macroeconomics" (August 23, 2013).  
<http://dx.doi.org/10.2139/ssrn.2317947>
- Janssen, Maarten (2006). "Microfoundations." <http://dx.doi.org/10.2139/ssrn.901163>
- Keynes, John Maynard (1933). *Essays in Biography*. Norton & Company.  
<http://digamo.free.fr/keynesbio.pdf>
- (1936). *The general theory of employment, interest and money*. London: MacMillan.
- (1939) "Preface to the French edition of General Theory."  
<http://gutenberg.net.au/ebooks03/0300071h/printall.html>

Kirman, Alan (1989). "The intrinsic limits of modern economic theory: the emperor has no clothes." *Economic Journal* 99.

----- (1992). "Whom or what does the representative individual represent?" *Journal of Economic Perspectives* 6.

King, John Edward (2012). *The microfoundations delusion: metaphor and dogma in the history of macroeconomics*. Cheltenham: Edward Elgar.

Lawson, Tony (1997). *Economics and reality*. London: Routledge

Lucas, Robert (1972). "Expectations and the neutrality of money." *Journal of Economic Theory* 4.

----- (1981). *Studies in Business-Cycle Theory*. Oxford: Basil Blackwell.

----- (1987). *Models of Business Cycles*. Oxford: Basil Blackwell.

----- (1995). "The Monetary Neutrality." The Nobel Lecture, Stockholm: The Nobel Foundation.

Meeusen, Wim (2011). "Whither the Microeconomic Foundations of Macroeconomic Theory?" *Brussels Economic Review* 54.

Muth, John (1961). "Rational expectations and the theory of price movements." *Econometrica* 29.

Nelson, Alan (1984). "Some issues surrounding the reduction of macroeconomics to microeconomics." *Philosophy of Science* 51.

Pålsson Syll, Lars (2001). *Ekonomisk teori och metod: ett kritisk-realistiskt perspektiv*. Lund: Studentlitteratur.

----- (2011). *Ekonomisk doktrinhistoria*. Lund: Studentlitteratur.

Rizvi, Abu Turab (1994). "The microfoundations project in general equilibrium theory." *Cambridge Journal of Economics* 18.

Searle, John (1996[1995]). *The construction of social reality*. London: Penguin.

Snowdon, Brian and Howard Vane (1998). "Transforming macroeconomics: an interview with Robert E Lucas Jr." *Journal of Economic Methodology* 5.

Solow, Robert (2010). "Testimony to Congress given to the House Committee on Science and Technology." [http://science.house.gov/publications/hearings\\_markups\\_details.aspx?NewsID=2876](http://science.house.gov/publications/hearings_markups_details.aspx?NewsID=2876)

Weintraub, Roy (1979). *Microfoundations: the compatibility of microeconomics and macroeconomics*. Cambridge: Cambridge University Press.

**Author contact:** [lars.palsson-syll@mah.se](mailto:lars.palsson-syll@mah.se)

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**SUGGESTED CITATION:**

Lars Pålsson Syll, "Micro vs. macro", *real-world economics review*, issue no. 66, 13 January 2014, pp. 12-29, <http://www.paecon.net/PAEReview/issue66/Syll66.pdf>

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# On facts and values: critique of the fact-value dichotomy in economics

Joseph Noko [Zimbabwe]

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## Abstract

The fact-value dichotomy has been with us for centuries, since David Hume gave birth to the idea and in its most modern form was championed by the logical positivists. Two thought-experiments throw open the nature of the relationship between facts and values and later, Socrates is invoked to demonstrate the objective dimension of values and the difference between a value that is held as true and one that is true. This leads, at the end, to the following theorem: When we speak of the division between facts and values in conceptual space, we must admit that the truth and idea of facts is not definable using the expressive means facts afford, rather, the truth and idea of facts can only be defined with values, and these values have an objective dimension.

**Keywords** fact-value dichotomy, Hume's guillotine, positive-normative distinction, Socrates, fact-value entanglement, factual commitments, significance testing

**JEL codes** A13, B41, D03

## Introduction

There is a certain tendency in economics, whose genealogy may be traced back to the time of the hardening and ossification of Scepticism and which has the smell of the Dogmatism of Clitomachus and Carneades and other Academicians of classical Greece<sup>1</sup>. It is to David Hume's *A Treatise of Human Nature*, that we formally owe this tendency: that of the segregation of facts from values.

The fact-value dichotomy had methodological and substantive ramifications: at once sequestering values as unscientific poppycock and holding facts to be the only objective, rational class of knowledge. It was only logical – *from the premises* – that the praxis of science, if it was to be credible, had to eviscerate all but the most necessary methodological values, and so the distinction was drawn between positivist science and normative science and in our domain, between positive economics and normative economics.

The section entitled "Hume's Guillotine" traces the historical basis of the fact-value dichotomy in the work of David Hume, sketching along the way the economists who introduced the concept to our science and the effects of logical positivism therein. "The Legend of the Theorem Producing Program" is a daring attempt to understand the relationship between

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<sup>1</sup> In the *Pyrrhonic Sketches*, Sextus Empiricus identifies three strands of philosophy, in relation to their epistemological position: those who think they have found the truth, like the Dogmatics –the schools of Aristotle and Epicurus-, those who declare it impossible to find –like the Academicians such as Clitomachus and Carneades-, and those who continue to seek the truth, like the Sceptics. The Sceptics held to an empirical view of the world, holding that what existed out of the phenomenal world could not be sensibly spoken off as being true or untrue, and that a suspension of judgement on non-phenomenal matters would lead to a state of imperturbability they called ἀταραξία. It seems to me that the Enlightenment took a hardened strand of this view in separating facts and values and declaring the one worthy of science and the other purely subjective, and subsequently, the logical positivists took it to its logical conclusion and declared all value-judgements nonsensical.

facts and values by way of two thought-experiments, whose conclusions demonstrate the difficulties of determining facts without values, are striking and can be summed up in the theorem:

Outside of the conceptual realm, there are only raw facts, and so, no fact-value dichotomy exists; within the *conceptual* realm, the fact-value dichotomy does not exist because, ultimately, when we speak of the division between facts and values in *conceptual* space, we must admit that the truth and idea of facts is not definable using the expressive means facts afford, rather, the truth and idea of facts can only be defined with values and these values have an objective dimension.

The section entitled “On the Good” is a homage to the Socrates of Protagoras, demonstrating that those much maligned beasts of the psychic deep, “values”, are subject to interrogation by logic, and can be held to enquiry in a manner similar to facts, so that we can say, “this is a true belief, this a false belief”, and consequently, that values also are fit for scientific enquiry of the most rigorous kind.

### **Hume’s guillotine**

The fact-value dichotomy developed as part of Hume’s assault on moral rationalism and his endorsement of moral sentimentalism. Where moral rationalists believed in reason as a guiding force in our actions, Hume saw reason as playing no part; where moral rationalists believed the passions were sometimes opposed to reason, Hume felt the passions could not be in conflict, or in accord with reason. In a word, for Hume, morality did not arise out of reason, and the morality of an action was not the result of true or false judgements, for moral actions were not founded on facts, or judgements.

What of it?

Hume held that there were two kinds of reasoning: “the comparing of ideas”<sup>2</sup> and the “inferring of matters of fact”<sup>3</sup>, asserting that morality was closed to demonstrative reason, being a purely intuitive, unobservable, psychological<sup>4</sup> phenomenon, and that probable reasoning applied to matters of fact, for the objects of our perception are outside of us, “impressions of sensation”<sup>5</sup> and when we observe these objects, we see only its non-moral qualities: what moral properties we see are “impressions of reflection”<sup>6</sup>. Therefore, there is a rupture between facts and values: no statement, therefore, as a general principle, can be both, evaluative and factual, and only matters of fact can be said to be “true” or “false”, due to the objective nature of facts in contradistinction to the subjective nature of value; of values, we can only say that, “this is good”, or “this is bad”.

In economics, the idea of a separation of positive and normative economics can be traced back to Nassau Senior and John Stuart Mill, but it was only in 1891 that John Neville Keynes distinguished between positive economics as the economics of what *is*, of *facts*, and

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<sup>2</sup> Hume (2010).

<sup>3</sup> Ibid.

<sup>4</sup> Vladimir Lefebvre’s work on reflexive theory, as seen in his book *The Structure of Awareness*, demonstrates that the problem of a scientific study of the mental life can be overcome, decisively, by representing it with mathematics. Reflexive theory is superior to game theory because it endogenously considers behavioural and moral facts.

<sup>5</sup> Hume (2010).

<sup>6</sup> Ibid.

normative economics as the economics of values, of what *ought* to be. Blaug (1980) adds that positive economics was originally a matter of “scientific” economics whereas normative economics was a matter of practical policy. With John Neville Keynes’ work, under the influence of logical positivism, the distinction between positive and normative economics became entangled with that of facts and values, so that today, positive economics refers to factual economics and normative economics, to value-based economics.

In the twentieth century, the brief blooming and timely withering of logical positivism heightened the strength of this tendency and it was opined that facts were the only object of rational and therefore scientific endeavour, values being merely the stuff of opinion, a nonsense better left to priests and moralists. Only analytical statements that were true by definition, such as “ $1+1 = 2$ ”, and synthetic statements, i.e. those statements of observed fact, were “meaningful”. Logical positivism collapsed as a school when some sensible observer pointed out the self-referential absurdity of their founding claim: it could neither be directly confirmed nor reduced to direct confirmation and was clearly not an analytical statement true by definition, and so, by the criterion of meaning developed by the logical positivists, was itself meaningless<sup>7</sup>.

Hélas! The fact-value dichotomy lived on. In a nebulous sense, economics gave sanctuary to logical positivism because the idea of the dichotomy was so pervasive. One of the central tenets of logical positivism, adopted formally by the majority of economists, is the idea that economics is or must become a “positive science” in which value judgements are shunned, and only what is purely factual is deemed worthy of attention.

As an outgrowth of the fact-value dichotomy, we have come to believe that values play no role in economics or in determining what is a “fact”; that values are not imbedded in our theories; and that values are outside of the realm of reason and objectivity.

The purpose of this paper is to demonstrate that the fact-value dichotomy is a chimera and that accordingly our understanding of what constitutes economics has been unnecessarily hindered and narrowed, waylaying us on the path to truth.

### **The legend of the theorem producing program**

Supposing in some far flung corner of the world, in a time unknown, there was an economist with a refined skill as a programmer. This economist, let us name him, Mr X, for some might hope that he is the archetype of the economist of the future, sets upon an ambitious program inspired by the fact-value dichotomy: to create a program to derive and optimize *factual* economic statements – theories and theorems included – from some mass of raw facts. Let us suppose too, that Mr X’s program is fed *all* information in existence, without discrimination and that as part of its operations it delineates economic facts from this mass of knowledge. The optimization of the factual statements would have the goal of making the most effective use of the factual statements and arrive at an estimate of the robustness of the factual statements, all in relation to facts.

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<sup>7</sup> Abbot (Spring 2001).

The optimization would proceed in four steps:

1. A historical simulation of an economic system over some timeframe,  $\alpha$ , to derive factual statements. If a factual statement failed the simulation stage, it would be discarded.
2. An optimization of the successful or “provisionally true” factual statements over timeframe,  $\beta$  – which immediately follows  $\alpha$  –, in order to discover parameters for the factual statements best suited to the data. Each factual statement would then have sub-factual statements based on various parameters; each sub-factual statement would be ranked according to some performance measure.
3. A walk-forward analysis over timeframe,  $\gamma$  – which immediately follows  $\beta$  –, to test our optimization’s efficiency and the performance of the factual statements.
4. A stress test over a timeframe,  $\delta$  – which immediately follows  $\gamma$  –, to see how the factual statements would perform in various scenarios, ranked according to probability and impact.

Immediately, our economist-of-the-future would run into problems: anything that is an economic fact is necessarily a *subject* of the program and therefore cannot be part of the structure of the *language* of the program. Assertions about the nature of economics and its subjects, that are true and unverifiable, would need to be made. How to determine what a fact is... It is clear that *all* axioms<sup>8</sup> of economics and *all* rules of inference, including statistical inference, would need to be stated. Again, an algorithm to determine, from the mass of raw facts, what was relevant to economics and to organize it and derive factual statements would be necessary. This too could not be an algorithm that was composed of facts. A method of evaluating the “performance” of the factual statements would have to be given<sup>9</sup>, in order to test and *choose* factual statements. Mr X would not be interested in every possible factual statement; therefore, he would also have to specify the questions for which priority should be given in the pursuit of factual statements.

Again, a “*gedankenversuch*”<sup>10</sup>: when a baby is born, and it experiences the rain for the first time, we cannot deny the raw “fact” of the rain, it is there, like life, and we cannot claim that the baby, newly born, has any “values” that we can critique.

What are we to make of all this? The solution to these two thought-experiments is the key to understanding the fact-value dichotomy: in a world without man, there are only raw “facts”<sup>11</sup>, and there are no values. The introduction of man into the world conceptualizes and injects it with values, for all thought is bound up with valuing, and when we think about something, we impute that “fact” with values: for the baby, the rain is nothing more than raw data, but when the baby develops to the point when it can think about the rain and conceptualize it, it imputes the rain with values, it says, “such-and-such count for being rain”, “this drop of water is not enough to be called rain”, which is to say, outside of our thinking, of human experience, we

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<sup>8</sup> The issue will be dealt with later but suffice it to say, the program cannot be founded on facts but must be founded on proven statements, or axioms, or suffer from the problem of self-reference.

<sup>9</sup> An example of this is the value-judgement once made by Gottfried Leibniz, “God has chosen that which is the most perfect, that is to say, in which at the same time the hypotheses are as simple as possible, and the phenomena are as rich as possible.” This is stronger than Ockham’s razor, *entia non sunt multiplicanda praeter necessitates* (“Entities are not to be multiplied beyond necessity”), because it explains why Ockham’s razor works.

<sup>10</sup> German for “thought experiment”.

<sup>11</sup> The word “fact” implies something that is true, but in reality, our language hides our knotted understanding, for we often conflate “true” with “held as true”, for example, it was once an undisputed “fact” that the earth was the centre of the universe.

have no values, and if we have “facts”, they are no more than raw data, but in the experience of cognition, at the conceptual level, values create facts through standards of evidence, and rules of inference. More clearly, the fact-value dichotomy does not exist at the conceptual level because facts presuppose values, and at the base, non-conceptual level, if we are to speak of “facts”, we must speak of them with tongue in cheek, blushing, knowing that we really mean “raw data”.

The world is a laboratory of hypotheses tested each day by man, and who is thus, in a sense, a scientist, and as a scientist, he makes value judgments, weighing up evidence and judging it sufficient, satisfactory, or strong, in essence, accepting *this* as a fact and rejecting *that* as a fact. This is no passive act, more acceptance than creation of facts; no, it is an active participation in the formation of facts and the weight of evidence demanded by man qua scientist is dependent upon the severity of punishment in the event of error<sup>12</sup>. Values viz. rules of inference exist prior to facts in their purified, conceptual form. The concept of “this” fact is dead without values, what exists are only raw facts. In choosing a significance level, man qua scientist sifts through raw facts and draws a necessarily arbitrary line and says, “these are false”, and “these are true”, creating two categories of facts where before there were only raw facts, and banishing into non-existence one category, “that is not a fact”, and investing another with the attributes of truth, “for at this level of significance I have chosen, this corresponds with reality”.

An example of the creative nature of the engagement of man qua scientist with raw facts is “the cult of significance testing” discussed by Stephen T. Ziliak and Deirdre N. McCloskey: false beliefs about the meaning of statistical significance have resulted in the equating of statistical significance with, say, economic significance, and the import of this is that we have lost the economic dimension in our logic of uncertainty, and major findings in the field of economics are rejected as “false”, left unpublished, because they fail to meet the arbitrary rules of inference set by economists, whilst minor findings, fitting in snugly and ensconced within statistical significance, are praised and published and pursued. As a consequence of this, our conceptual space regarding the field of economics is skewered towards the pursuit of economic insignificance resplendent with statistical significance. The size of the effect of a finding are of less importance than the possibility of error, and so, raw facts of high magnitude in their import, are regularly banished to the nether lands of falsehood.

Values are inescapable and rather than seeking to eliminate them, they must be made conscious, brought to the surface and critiqued. Our fault is not in having values, but in not being conscious of the premises behind our reasoning and thereby holding onto *false* beliefs. The example of Socrates, the Delphic maxim, “know thyself”, these are more necessary to the economic enterprise than the war against values.

Outside of the conceptual realm, there are only raw facts, and so, no fact-value dichotomy exists, within the *conceptual* realm, the fact-value dichotomy does not exist because, ultimately, when we speak of the division between facts and values in *conceptual* space, we must admit that the truth and idea of facts is not definable using the expressive means facts afford, rather, the truth and idea of facts can only be defined with values and these values have an objective dimension.

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<sup>12</sup> Rudner, 1953.

## On the good

In the realm of human action, everything is done in the pursuit of what is good. If we hold up “the good” as an empty vessel free from practical implications – an abstraction –, we may then say that *all men strive after “the good”*<sup>13</sup>. This is their ultimate, objective value, the *ne plus ultra* of ends. No human action is undertaken in which the agent does not believe that he is undertaking the best possible action. Ah! “But are men not sometimes overcome by pleasure into doing what is evil?”<sup>14</sup> someone grumbles. To this error, Socrates gave a worthy rebuttal: if we fill our concept of “the good” with this thing we call “pleasure”, so that “the good” = “pleasure”, our statement then becomes, “But are men not sometimes overcome by the good into doing what is evil?”, a patent absurdity<sup>15</sup>. “Nay, but our questioner will rejoin with a laugh, if he be one of the swaggering sort, ‘That is too ridiculous, that a man should do what he knows to be evil when he ought not, because he is overcome by good’ ”<sup>16</sup>. Only if the good and the evil are “out of proportion”<sup>17</sup> to one another can one be “overcome by pleasure”, i.e. when one *imputes* more value into “the evil” than into the good, one will choose “the evil”, for it is completely ridiculous to believe that knowing the evil to be evil one chooses it over the good. Through reflexion<sup>18</sup>, or *verstehen*, we can logically critique the beliefs we hold and by understanding the beliefs of others we see the reasoning behind them. Value-subjectivism exists in so far as one subjectively fills the empty concept of “the good” with notions of what it is to have “the good”, and the means necessary to achieve “the good”. All human action is purposeful, driven by ends, and beliefs. Only in this sense are values subjective. On a higher plane, values are objective; they exist above and beyond all men, are outside of us, yet part of us, and because our subjective *evaluations* are subject to rational critique, we can say that the field of values is open to rational discussion. One may err in one’s beliefs, in one’s evaluations, but the ultimate end is unquestionable and objective: the good. The good is the ultimate end; its pursuit is the organizing principle of human action. To this empty concept we enter our subjective interpretations of what it is to have the good, of the means necessary to achieve the good, with “pleasure”, “profit”, “riches”, “love”, “liberty” “hard work”, “liberality”, “generosity”, and things of such nature. The good is like a play to be performed, a dead thing on paper that comes alive when it is interpreted and performed, sometimes well, sometimes badly, but always with the end of performing it well.

The fundamental error of value subjectivists is in equating *holding as good* with *being good*<sup>19</sup>. The rules of logic are universal and values are open to empirical criticism. When we make the Fregean distinction between what is held to be good and what is good, we can then ask, “Who is right?” If however we create the identity, good = what is held to be good, then we create an interminable chain of the kind, “what is held to be (what is held to be (what is held to be (what is held to be (what is held to be (...))))).”

In conflating what is held to be good with what is good, there is no room, logically, for rational discussion, because each holding-to-be-good is a personal affirmation which brooks no infringement. However, as we have shown, all action is grounded on objective values, and

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<sup>13</sup> I use “good” and “evil” in purely non-moral ways.

<sup>14</sup> A contemporary variation on this theme can be heard when bankers are accused of allowing themselves to be seduced by bonuses into risk-seeking behaviour.

<sup>15</sup> This line of reasoning stems from Plato’s dialogue, *Protagoras*, in which Socrates and Protagoras discusses the question of being overcome by pleasure.

<sup>16</sup> Plato, *Protagoras*, <http://www.gutenberg.org/files/1591/1591-h/1591-h.htm>, 2008.

<sup>17</sup> Ibid.

<sup>18</sup> In the Lefebvrian sense.

<sup>19</sup> Frege made this distinction in his critique of psychologism.

errors are subjectively determined false beliefs regarding those objective values. The play is performed badly, but this does not negate the objectivity of the play. We err because we do not know better<sup>20</sup>.

How are we to assess value judgements? Value judgements are conceptual, at the objective level, guiding our preferences like a strategic principle of trading organizing the trading decisions taken daily by managers, but they make factual commitments, which is to say that we expect a fund manager whose end is a strong pessimistic return on margin (PROM), to *act* in certain ways. The concept says nothing about what those actions will be, but it tells us what the nature of those actions will be like. Consequently, value judgements must be assessed at the conceptual level, with the proviso that, if, for example, our fund manager is weighing two strategies he must first judge them at the conceptual level – perhaps favouring one because he believes its risk management is robust to volatility and allows him to ride a trend to its conclusion –, and only *then* test them against empirical data, not to falsify it, but to see if the factual commitments made apply to the data, for a trading strategy may be a disaster in one asset, and a success in another. So it is with value judgements, they must be judged at the conceptual level, and then their factual commitments tested against empirical evidence.

### **The aftermath**

We have seen that prior to man, there are no values, only facts in their rawest form, but the presence of man, thinking man, reflecting upon raw facts, immediately implicates those raw facts with values, so that at the conceptual level, facts presuppose values, and in most direct way possible: in forming the rules of inference of his subject, and creating standards of evidence, various levels of significance for the acceptance of a “fact”, man creates what we might call, “conceptual facts”. The role of values is to arrive at true, logical notions, and it is false beliefs that lead us astray, into thinking that “facts” are “facts” because we hold them to be facts. We must exercise our creativity in a positive way so that in purifying our raw facts our conceptual facts bear a correspondence with reality. Ultimately, values too are worthy of scientific examination, having a rational and objective dimension. The fact-value dichotomy is not dead. It never existed. It cannot. Outside of thought there are only facts, within conceptual space, there are no facts without values and these values have a rational and objective dimension that opens them to logical critique.

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<sup>20</sup> The knowledge that we bring to bear in our decision-making guides our actions. We do not act against our knowledge. I may know that drinking and driving is bad, but if I drink and then when in contemplating whether or not I must drive, I do not bring to bear the knowledge that drunk driving is bad, then that knowledge does not count as part of my decision-making. Aristotle makes this point in his *Nicomachean Ethics* when he writes: “But since we speak of knowing in a twofold sense (for both the person who possesses knowledge but does not use it and the person who uses it are said to know), one will differentiate the person who possesses knowledge but does not attend to it – and even attends instead to the things he ought *not* to do – from the person who possesses knowledge and attends to it. For the latter [if he still acts wrongly] seems bizarre, but if he does not attend to his knowledge, he does not seem bizarre. ... For we see in possessing-and-not-using a diversity of disposition, so that in a way it is possessing-and-not-possessing .... Uttering the statements based on knowledge signifies nothing. ... Incontinent people must be supposed to speak in just the way that actors do.”

## References

- Abbot, James R, "Facts, Values, and Evaluative Explanation: Contributions of Leo Strauss to Contemporary Debates", *The American Sociologist*, 32:1 (Spring 2001).
- Blaug, Mark, *The Methodology of Economics: Or How Economists Explain*, Cambridge: Cambridge University Press, 1980.
- Carnap, Rudolf, "Empiricism, Semantics and Ontology ", *Revue Internationale de Philosophie*, 4 (1950): 20-40
- Hume, David, *A Treatise of Human Nature*, <http://www.gutenberg.org/etext/4705>, 2010.
- Lefebvre, Vladimir A., *The Structure of Awareness: Toward a Symbolic language of Human Reflexion*, Beverley Hills: Sage Publications, 1977.
- Leibniz, Gottfried Wilhelm von, *Discours de métaphysique, suivi de Monadologie*, Gallimard, 1995.
- Patrick, Mary Mills, *Sextus Empiricus and Greek Scepticism*, London: George Bell & Sons, 1899.
- Plato, *Protagoras*, <http://www.gutenberg.org/files/1591/1591-h/1591-h.htm>, 2008.
- Putnam, Hilary, *The Collapse of the Fact-Value Distinction and Other Essays*, Cambridge: Harvard University Press, 2002.
- Rudner, Richard, *The Scientist Qua Scientist Makes Value Judgments*, *Philosophy of Science*, Vol. 20, No. 1 (Jan., 1953), pp. 1-6.
- George Soros, *The Alchemy of Finance: Reading the Mind of the Market*, New York: John Wiley & Sons, Inc., 1994.
- Tarski, Alfred, "The Concept of Truth in Formalized Languages", in *Logic, Semantics, Metamathematics*, Hackett, 1983.
- , "The Semantic Conception of Truth and the Foundations of Semantics", in *Philosophy and Phenomenological Research*, <http://www.ditext.com/tarski/tarski.html>, 1944.
- Ziliak, Stephen T. and McCloskey, Deirdre N., *The Cult of Statistical Significance: How the Standard Error Costs Us Jobs, Justice and Lives*, Ann Arbor: The University of Michigan Press, 2008.

**Author contact:** [josephnoko@imap.cc](mailto:josephnoko@imap.cc)

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### SUGGESTED CITATION:

Joseph Noko, "On facts and values: critique of the fact-value dichotomy in economics", *real-world economics review*, issue no. 66, 13 January 2014, pp. 30-37, <http://www.paecon.net/PAEReview/issue66/Noko66.pdf>

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# Modern Money Theory and New Currency Theory

## A comparative discussion, including an assessment of their relevance to monetary reform<sup>1</sup>

Joseph Huber<sup>2</sup> [Martin Luther University, Germany]

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### Abstract

This paper discusses Modern Money Theory (MMT) from the perspective of a New Currency Theory (NCT) as represented by proponents of monetary reform. In the paradigmatic framework of currency teachings versus banking teachings, MMT, in contrast to its self-image as a chartal theory of money, represents banking theory much more than currency teaching. Its understanding of fractional reserve banking and monetary sovereignty is misleadingly incomplete. Thus, NCT's analyses appear to be a more adequate foundation for modern sovereign money.

**JEL codes** E5, G21, G28

**Keywords** Monetary theory, sovereign money, monetary reform, banking school, currency school, modern money theory, new currency theory

### Introduction: monetary reform policies need more support from academia

To represent a respected economic paradigm, or to be supported by people who represent one, is important for making it onto the political agenda. Weak expert support is a main bottleneck for advancing monetary reform policies. With which economic theories can monetary reform be compatible?

Everything in the vein of classical and neoclassical economics has proved to be unsupportive. Something similar applies to the Austrian and Neo-Austrian School in as far as their idea of free banking on a gold standard is involved. There is, however, some degree of agreement on the Neo-Austrian School's criticism of fractional reserve banking as the root cause of crises. Whether Keynesianism might be helpful is not clear. In his 1923 Tract on Monetary Reform Keynes took the present two-tier fractional reserve system as a basis, assuming that minimum reserve requirements and central-bank base rates are effective instruments for controlling banks' credit and deposit creation. Both instruments, however, have turned out to be ineffective.

Among those that are more likely to be approachable are post-Keynesianism, monetary circuit theory (circuitism), disequilibrium and financial crisis theories, monetarism of some shape, institutional and historical economics, economic sociology, constitutionalism and public law, as well as ecological economics.

The question now concerns the extent to which Modern Money Theory (MMT) and the kind of neo-chartalism they stand for belong in that group of approachable schools. Thus, a comparative discussion of MMT would seem appropriate.

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<sup>1</sup> This article is the revised version of a paper given at the American Monetary Institute's 9th Annual Monetary Reform Conference, Chicago, 19–22 September 2013. I want to thank Stephen Zarlenga and Jamie Walton for collegial support and review of the draft paper.

<sup>2</sup> Chair of Economic Sociology Em, Martin Luther University, Halle, Germany.  
Mail: [huber@soziologie.uni-halle.de](mailto:huber@soziologie.uni-halle.de).

## Currency versus Banking. New Currency Theory

In this context, I should be explicit about my own point of view. It can be described as currency theory. Currency School and Banking School teachings are particularly suited to explaining what monetary reform is about, also bearing in mind the extent to which the matter of currency versus bank credit on the basis of a fractional currency base is inscribed in monetary history back to ancient Greece and Rome.<sup>3</sup> 'Currency vs banking' is equally useful to discussing how far MMT and monetary reform might go together.

Making reference to those teachings does not intend to replicate these in the historical form from the first half of the nineteenth century. For example, in up-to-date currency teaching there can no more be reference to gold as a monetary standard. Rather, I want to carve out structural elements that have continued to exist and develop, which represent the core components of, say, a New Currency Theory, NCT for short. The following table contains a number of relevant aspects.

### Currency vs banking. Arguments and counterarguments

<b>Currency School</b> <i>Criticism of fractional reserve banking</i> <p>... which is seen both as illegitimate in that it grants monetary privileges to banks, and as dysfunctional in that it causes major problems of instability and crises beyond the single banks involved.</p>	<b>Banking School</b> <p>Credit creation on a fractional reserve base is neither fraudulent nor dysfunctional, but a necessity of industrial growth in order to overcome material restrictions of traditional metal currencies.</p>
<b>Banking School</b> <p>On the grounds of the <i>law of large numbers</i>, fractional reserve banking involves no more risk than lending on a full reserve base. Bankers know from experience how large a reserve they actually need.</p>	<b>Currency School</b> <p>In practice, <i>banks tend to overshoot and get overexposed</i> to various risks, whereby the central factor underlying all of this is unrestrained credit and debt creation on a basis of fractional reserves.</p>
<b>Currency School</b> <i>Banking and financial crises are of monetary origin.</i> □ <p>Unrestrained, overshooting issuance of banknotes and credit creation result in inflation, asset inflation, currency depreciation, recurrent boom-and-bust cycles, and banking crises. In the process, bank money (deposits) proves to be unsafe.</p>	<b>Banking School</b> <i>Crises do not have monetary causes.</i> <p>Boom-and-bust cycles and other malfunctions do not have monetary causes. There must be other economic and financial reasons.</p>

<sup>3</sup> Cf. Huerta de Soto 2009, chapters I–III.

<p><b>Banking School</b>  <i>Fullarton's Law of Reflux</i>  Inflation and currency depreciation do not occur for monetary reasons. If such phenomena occurred, customers would immediately convert banknotes into coin, or withdraw deposits.</p>	<p><b>Currency School</b>    Orderly conversion or withdrawal is not reported to have ever happened. Rather, vain attempts to do so have resulted in bank runs.  Fullarton's Law refers to traditional coin currencies. With modern fiat currencies it has become irrelevant. One cannot escape inflation by converting deposits into cash, or banknotes into coin.</p>
<p><b>Currency School</b>  <i>Control of the money supply</i>  Because any amount of money can be created at discretion, there must be some institutional arrangement and rules in order to keep the money supply in a commensurate relation to real economic growth.  Without an anchor of relative scarcity—then gold, today the productive potential of an economy at full capacity – money and capital markets will not reach a stage of 'equilibrium' and self-limitation.</p>	<p><b>Banking School</b>  <i>The money supply takes care of itself</i>  Like any market, money and capital markets are self-regulating and stabilizing at a point of equilibrium of supply and demand. Trust in free markets. – Efficient financial markets are supposed to price in all relevant information (EMH by Fama). – Markets are supposed to have superior crowd intelligence (Hayek).</p>
<p><b>Banking School</b>  <i>Real bills doctrine</i>  It all depends on observing the real bills doctrine: as long as bankers accept as collateral only good and short-term IOUs, the money supply will be commensurate with real demand, the money will be put to productive use, and no overshooting money supply will occur.</p>	<p><b>Currency School</b>  <i>Thesis of real bills fallacy</i>  In actual fact, bankers do not observe the real bills doctrine, and probably cannot because one never knows whether respective collateral will prove to be 'real' or fictitious.</p>
<p><b>Currency School</b>  <i>Chartalism. State theory of money</i>  Money is part of a state's sovereign prerogatives and a question of monetary sovereignty. A state's monetary prerogative includes  1. determining the currency, i.e. the official unit of account  2. issuing the money, i.e. the means of payment denominated in that currency as legal tender  3. benefitting from the seigniorage thereof.</p>	<p><b>Banking School</b>  <i>Commodity theory of money</i>  Money is a commodity like any other, thus an endogenous creation of market participants, in particular of banks. Banknotes and demand deposits are a private affair, based on private contracts. Trust in free banking.</p>

<p><b>Currency School</b>  <i>Separation of money and bank credit</i></p> <p>Separation of powers between the creation of money and the use of money in banking and the economy in general.  Banks should be free enterprises, but must not have the privilege to create themselves the money on which they operate.  Control of the quantity of money is the responsibility of a state authority (e.g. central bank, treasury, currency commission).</p>	<p><b>Banking School</b>  <i>Money and credit are identical and thus cannot be separate.</i>  (... which is certainly true if asserting a banking perspective of loaning money into circulation).</p>
<p><b>Currency School</b>  <i>Debt-free money</i></p> <p>Money does not need to be loaned into circulation, but can equally be spent into circulation free of interest and redemption, i.e. debt-free.</p>	<p><b>Banking School</b>  <i>All money is debt</i></p> <p>The creation of money includes the creation of interest-bearing debt, and extinction of the money upon redemption.</p>

One would not be altogether wrong in saying that the currency-school elements in the table are in line with the analyses and policy approaches put forth by most contemporary reform initiatives, in particular the *American Monetary Institute*, *Positive Money* in the UK, *Sensible Money* in Ireland, *Monetative* in Germany and *Monetary Modernisation* in Switzerland.<sup>4</sup> These clearly represent new currency teachings (NCT).

Furthermore, most advocates of monetary reform explicitly understand what they are doing as an endeavor to modernize the money system – which implies modernizing money theory.<sup>5</sup> MMT too, explicit in its name, seems to have modernized money theory. MMT scholars include Warren Mosler, Scott Fullwiler, Stephanie Kelton and Randall Wray.<sup>6</sup> As their ‘forefathers’ they cite Godley (sector balances), Lerner (functional finance) and Mitchell-Innes (state theory and credit history of money). Against the background of ‘currency vs banking’, NCT definitely represents a modernized currency paradigm. MMT’s positioning within this field, however, is ambiguous. MMT declares itself to represent a state theory of money and to stand for sovereign currency. One thus might expect it to be a currency teaching too. In actual fact, however, MMT repeatedly reproduces banking views, and even has it that bank money under contemporary fractional-reserve banking is a benign implementation of the sovereign-currency system we are supposed to have. This creates misunderstanding and talking past one another.<sup>7</sup>

<sup>4</sup> Cf. American Monetary Institute ([www.monetary.org](http://www.monetary.org)), Positive Money ([www.positivemoney.org](http://www.positivemoney.org); [www.positivemoney.org.nz](http://www.positivemoney.org.nz)), Sensible Money ([www.sensiblemoney.ie](http://www.sensiblemoney.ie)), Monetative ([www.monetative.de](http://www.monetative.de)), MoMo Switzerland ([vollgeld.ch](http://vollgeld.ch)). Also see [www.positivemoney.org/get-involved/international/](http://www.positivemoney.org/get-involved/international/).

<sup>5</sup> Cf. Jackson 2013; Jackson/Dyson 2013; Ryan-Collins/Greenham/Werner/Jackson 2012; Robertson 2012 97–155; Huber 2010; Zarlenga 2002 651–685; Huber/Robertson 2000.

<sup>6</sup> MMT sources I have used are: Fullwiler/Kelton/Wray 2012; Hudson 2004; Knapp 1905/ 1924; Lerner 1943, 1947; Mitchell-Innes 1913, 1914; Mosler 1995; Wray (ed) 2004, 2011, 2012.

<sup>7</sup> Papers with similar critical analyses of MMT include Zarlenga 2002, Fiebiger 2011, Lavoie 2011, Roche 2011, Walsh/Zarlenga 2012, Huber 2013.

## **Accordances: criticism of still pre-modern textbook wisdom on money and banking**

Let us pin down what MMT and NCT have in common. Both groups, just as most post-Keynesians, scrap some still pre-modern textbook wisdom on money and banking. These commonalities apply to a number of aspects of how the present system of fractional reserve banking works, as summarized in the following.

### ***The monetary system is constitutive to modern economies***

NCT and MMT share a basic understanding that the money system is pivotal for the economy. Money governs finance, as finance governs the economy. In a modern, highly financialised economy based on credit, money is not just a 'veil' on economic transactions as neoclassical theory has it, but is constitutive of the entire economy, not only enabling transactions, but also financing, and ever more often forerunningly pre-financing, investment and consumption. Money issuance has a pre-allocative and pre-distributive function.

### ***Modern money is fiat money***

Modern money is and ought to be fiat money that can freely be created at discretion. The metal age of money is over. Debates on intrinsic value of money are obsolete, including a return to gold as called for by the Neo-Austrian School. The value of money is its purchasing power which is derived from and dependent on an economy's productive potential.

### ***The standard model of the credit or money multiplier is obsolete***

Any variant of the multiplier model is based on the understanding that deposits are in actual fact deposited; that is, based upon a given amount of exogenous money such as gold or sovereign coin. The respective money base is thought to be, say, re-cycled in an iterative process of re-lending deposited money, deducting each time a reserve rate in order to be able to satisfy current customer demand for converting deposits into cash. This kind of model may historically in a way have applied to coin currencies, including bullion-based paper currencies. It no longer applies to modern fiat money, which is non-cash at source and can instantly be created at discretion, be this by the central bank or individual banks, in a number of countries also by the treasury. Cash has become a residual technical remnant of diminishing importance, which is exchanged out of and back into the basically cashless supply of money-on-account.

### ***Bank credit creates deposits, not vice versa***

MMT and NCT thus also share a common analysis of banks' credit and deposit creation under fractional reserve banking. Primary credit creates deposits, and banks neither need deposits nor in fact can use them to create credit. Deposits are bank liabilities and (in contrast to traditional cash deposits) do not add to bank liquidity. Deposits are created whenever a bank credits a current account. Indeed, crediting is done 'out of thin air'. At the moment when it is carried out, it has no operational prerequisite except having obtained a banking license which in fact is a license to print money. Banks' money printing, though, is not unconditional. One condition is that banks extend their balance sheets largely in step with each other so that the flows of deposits and central-bank reserves, residually also cash, from and to single banks do not result in major imbalances.

### ***The loanable funds model is largely obsolete. Investment is basically not dependent on savings. Money or capital shortage need not be.***

The above implies reconsideration of the traditional textbook model of loanable funds according to which investment equals savings (shared by neoclassics, the Austrian School

and Keynesianism). In a modern money system, investment is basically no longer dependent on savings. Banks can fund real and financial investment (and consumption) without prior savings, and they actually do so when making loans or primarily buying sovereign bonds or real estate. If savings or own capital have an important role to play, it is in obtaining rather than in funding primary credit.

Building upon primary bank credit/deposits, there is secondary on-lending of existing deposits, or investing these, from and among nonbanks, including nonbank financial institutions such as funds and insurance companies. When banks (strictly speaking, commercial or universal banks) are involved, it is always about primary credit.

***The banking sector, not central bank, determines the entire money supply.***

Banks have the pro-active lead in creating money. Central banks re-act and always accommodate banks' demand for reserves. Banks create credit first, and look for fractional re-financing thereafter.

***Chartal theory (state theory) of money***

Money is a creature of a state's legal system rather than just another commodity that is spontaneously, or endogenously, created by market participants on a basis of private contracts.

**Discrepancies**

Beyond the aspects listed above, there are fewer commonalities between MMT and NCT than one might expect. Diverging views relate to:

- the dysfunctions of fractional reserve banking;
- the question of who has and who ought to have control of the money supply (government, central bank, or the banking sector);
- what a sovereign-currency system is and whether we have one;
- whether money necessarily comes with debt;
- what sector-account imbalances can tell us;
- and whether the quantity theory of money and principles of sound finance do apply.

**Dysfunctions of fractional reserve banking and the need for monetary reform**

If one assumes that the present system of fractional reserve banking is a well-functioning arrangement, one will not recognize a need for monetary reform. This, somewhat surprisingly, is the position of MMT. A hundred years ago, Mitchell-Innes had already idealized fractional reserve banking as a 'wonderfully efficient machinery of the banks'.<sup>8</sup>

MMTers today express no less admiration for what they see as a smoothly run and benign system, apparently unimpressed by the long list of dysfunctions of fractional reserve banking that has been drawn by so many scholars over the last two centuries. The long list of deficiencies includes unstable banks and finances; lack of money safety; inflation and asset inflation; distortion of income distribution to the benefit of financial income at the expense of

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<sup>8</sup> Mitchell-Innes 1913 394 | 31, 402 | 42, 391 | 30. Mitchell-Innes hereby still referred to the now obsolete multiplier model, asserting that 'we are all at the same time both debtors and creditors of each other.'

earned income; and overshooting, or even initial triggering, of economic and financial boom-and-bust cycles, thus proneness to crisis.

MMT could of course not overlook the reality of crises. After the dot.com bubble in 2000, strengthened by the housing and banking crisis from 2007, MMT adopted Minsky as another 'forefather'. This, however, goes as far as identifying oversized credit and debt bubbles as a major cause of crises. It stops short of identifying fractional reserve banking, and central-banks' factual submission to the banking rule, as the root cause and the primary source of all that overshooting money, credit and debt.

For the rest, MMT has adopted a neo-Keynesian idea by Minsky which is for the government and central bank together to act as an 'employer of last resort' and create money to this end. Such ideas evoke outrage among purist central bankers who have rather rigid ideas about keeping monetary and fiscal responsibilities apart. But considering (un-)employment in shaping monetary policy, not just inflation, is part of the U.S. Federal Reserve's official mission. No doubt there is some pragmatic overlap between monetary and fiscal policy in most countries.

MMT describes the situation as if government were creating itself the money it spends on policies aimed at propping up employment and economic growth. However, as will become clear from the explanations below, the 'employer of last resort' idea is just about another variant of Keynesian deficit spending. As is well known, the second part of this, i.e. creating a surplus in better times and paying down the debt incurred in difficult times, never worked (and MMT actually does not see any reason for paying down public debt).

In no way does MMT discuss contemporary approaches to monetary reform. If MMT has a monetary reform idea at all, it relates, in the words of Wray, to that 'strange prohibition to put on a sovereign issuer of the currency'<sup>9</sup>, i.e. for the treasury having to sell its bonds to banks rather than directly to the central bank, all the more as government and central bank are considered to represent one monetary policy unit anyway.<sup>10</sup> Some such reform perspective, though, remains rather inexplicit.

### **Who has control – central banks or banks? What is the use of interest-rate policy?**

Both MMT and NCT, again in accordance with post-Keynesianism, agree that within the present system central banks do not, and actually cannot, implement monetary quantity policy and do not exert control over banks' credit and deposit creation. Central banks always accommodate banks' demand for reserves and cash.

'In the real world', as Mosler states, 'banks make loans independent of reserve positions, then during the next accounting period borrow any needed reserves. The imperatives of the accounting system require the Fed to lend the banks whatever they need. ... A central bank can only be the follower, not the leader when it adjusts reserve balances in the banking system'.<sup>11</sup>

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<sup>9</sup> Wray 2012 204.

<sup>10</sup> Fullwiler/Kelton/Wray 2012 6; Wray 2012 98, 183.

<sup>11</sup> Mosler 1995 5.

This actually means that the banking sector pro-actively determines the entire money supply while central banks just re-act, and residually re-finance. MMT and NCT, however, diverge at this point, in that any currency teaching will react to this finding by wanting to regain quantity control of the money supply. MMT, however, does not care about monetary quantity policy, just about interest-rate policy.

In his macroeconomics textbook, Thomas Sargent explains that:

it has often been argued that the proper function of the monetary authorities is to set the interest rate at some reasonable level, allowing the money supply to be whatever it must be to ensure that the demand for money at that interest rate is satisfied.<sup>12</sup>

Sargent understood this as a reformulation of the Banking School's real bills doctrine, as mentioned before in the table. However, it is a central doctrine in MMT. It was common central-bank practice until the First World War and has been again since the 1990s. Today it is referred to as the short-term interest rate doctrine. Its counterpart is the reserve position doctrine, which was assumed to influence banks' credit creation by setting minimum reserve requirements or by pro-actively setting the amount of reserves a central bank is willing to provide at a time.<sup>13</sup>

A paradigm shift from quantity policy to interest-rate policy comes with a different target, i.e. inflation rate rather than aggregate money supply. This is based on the assumption that the inflation rate is a reliable indicator of scarcity or over-abundance of money.

In view of the recent past, interest-rate policies obviously fare no better than quantity policies did. One reason is that central banks only feel called upon to focus on formal and informal targeting in terms of consumer price inflation, and not upon asset inflation and bubble building. Even if they monitor financial-market dynamics, officially they do not consider asset inflation, although the biggest share of additional money supply in recent decades can be attributed to asset inflation. For example, in the US from 1997–2007 about one-fifth of the additional broad money supply was in growth of real income, two-fifths were in consumer price inflation, and the remaining two-fifths went into asset inflation. In Germany, from 1992–2008, that was even more pronounced in that three-quarters of the additional money supply M1 fuelled asset inflation, while one-eighth was in consumer price inflation and just one-eighth in real economic growth.<sup>14</sup>

Furthermore, what is a base rate on a small fraction of bank money supposed to control? In order to uphold 100 euros in demand deposits, including newly made out credit and purchases, the euro banking sector in the years up to the crisis since 2007/08 on average just needed about 3–4 per cent of central-bank money, of which 1.5 per cent was cash for the ATMs, 0.1–0.5 per cent excess reserves for final settlement of payments, and 2 per cent idle obligatory minimum reserve.<sup>15</sup>

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<sup>12</sup> Sargent 1979 92–95, cited in Poitras 1998 480.

<sup>13</sup> The term Reserve Position Doctrine (RPD) was coined by Meigs in 1962. Cf. Bindseil 2004 7, 9, 15.

<sup>14</sup> Calculated on data in [www.federalreserve.gov/releases/h6/hist](http://www.federalreserve.gov/releases/h6/hist);  
[www.bundesbank.de/statistik/zeitreihen](http://www.bundesbank.de/statistik/zeitreihen); Deutsche Bundesbank, Monthly Bulletins, tables II.2.

<sup>15</sup> Deutsche Bundesbank, Monthly Bulletins, tables IV.3 and V.3.

Increasing or decreasing interest rates on just 3–4 per cent of bank money will increase or decrease central-bank profits, and will correspondingly drain or add to banks' profit margins. This, however, has no impact on banks' credit creation, since banks' demand for reserves is predetermined by their pro-active dealings and is thus inelastic.<sup>16</sup> For the rest, and as long as the money supply is not tied to an economy's productive potential as the anchor of relative scarcity, GDP-disproportionate credit and deposit creation has no self-restraint until the next bust.

What then is the point of putting so much emphasis on the central bank setting its interest rates (such as the base rate) and controlling interbank rates (such as the Fed Funds rate, EURIBOR or LIBOR) through buying and selling government bonds or any other class of securities? If one were to admit that interest-rate policy is as ineffective as quantity policy was, this would be admitting that fractional-reserve banking has undermined any kind of central-bank control and thus, quite literally, is out of control.

### **Is the government a creditor or debtor?**

When a central bank absorbs government IOUs, or any other class of securities, from banks, the central bank in exchange provides reserves to the banks; and when the central bank releases or resells such securities to the banks, it absorbs reserves from them. In the form of repo transactions and outright purchases, this is an established open market practice.

This would hardly be worth mentioning if MMT did not link to such open market operations a rather central idea, which is that by issuing government debentures, a government issues its own sovereign money. MMT holds that even the present money and banking system represents a sovereign-currency system, and that government debt should not be seen as debt, at least not in the same way as private debt – which is all the more puzzling as MMT insists on all money being debt.

It might appear as if MMT assumes that governments creating their own money by issuing debentures would meet the monetary reform movement's call for sovereign money. Appearances are deceptive. MMT's assertion of 'government debt = sovereign money' turns out to be a rather willful misrepresentation of the actual situation.<sup>17</sup>

The mechanism of issuing government IOUs as sovereign money is thought to be as follows. The treasury, which has accounts with the central bank as well as with commercial banks, sells government IOUs to the banks and obtains the money (reserves or bank money) in exchange; then the banks sell the government IOUs to the central bank and are thus refunded in sovereign central-bank reserves. This sort of transaction certainly happens, but is a rather small part of the whole picture and must not be over-generalized.

For MMT's assertion to make sense, we either have to assume a conventional money multiplier process between banks and government, or else the entire amount of bonds would have to be absorbed by the central bank in exchange for reserves and cash. Banks, however, pass on to the central bank only a small part of government bonds. In Europe, central-bank holdings of public debt have in pre-crisis times been about 0.2–4%. In the U.S., the Fed

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<sup>16</sup> Fullwiler/Kelton/Wray 2012, 2.

<sup>17</sup> Also cf. Roche 2011.

system's share of government bonds, due to a relatively high minimum reserve requirement of 10%, is about 11–15%, thus is not particularly important either. Foreign central banks hold comparable amounts of a government's debt, if the currency involved is a recognized trading currency.<sup>18</sup>

It does not make a big difference if one assumes that all government transactions are carried out via central-bank accounts. Normally, governments transact via central-bank accounts as well as bank accounts. If a government had central-bank accounts only, the banks would certainly need a somewhat bigger base of excess reserves in order to be able to carry out all the payments from nonbanks to the government. But banks do not have to hold minimum coverage reserves on the government deposits involved, for these deposits are central-bank money and need not be covered by central-bank money. And no matter how small or somewhat bigger the base of excess reserves is, banks have those reserves recycled immediately as the government continually expends what it receives, which is to say that what banks transfer to the government on behalf of customers is continually re-transferred to the banks in payments from the government to customers.

MMT even generalizes its position by assuming that treasury spending equals money creation and comes prior to taxation.<sup>19</sup> This is to say that taxes do not fund government expenditure, for government expenditure would create the money that flows back to the treasury by way of taxes.<sup>20</sup> This is remindful of medieval tally sticks where this mechanism was evident. With regard to contemporary settings, however, there is no such evidence. Today, it is primarily the banks that decide if and how much money to create, and all economic actors can trigger primary bank credit in that they go into debt with the banks – government, nonbank financial institutions, banks as bank customers, companies, and private households. There is no mechanical sequence in the money circuit.

Don't let yourself be fooled. The biggest part of government expenditure is funded by taxes. Tax revenues represent transfers of already existing money. The money that serves for paying taxes is neither extinguished upon paying taxes, nor is it created or re-created when government spends its tax revenues. In actual fact, this is all about simple circulation of existing money.

An additional part of government expenditure is funded by selling government debentures to nonbanks. Going into debt with nonbanks involves secondary on-lending of already existing money. It does not involve primary credit and debt creation. Primary credit and debt creation only happens when government takes up additional debt with banks; and this – it should be noted – happens as long as the banks want it to happen. If banks and bond markets turn thumbs down, the would-be sovereign-money game is over.

MMT's re-interpretation of the issue of government IOUs as an issue of sovereign money, thus depicting government as a creditor rather than a debtor, is misguided. The real situation is quite obvious and does not need further interpretation: the government enters into debt with banks and nonbanks. The principal has to be redeemed, but is actually revolved, accumulating truly majestic mountains of debt. The entire debt mass is interest-bearing to banks and nonbanks, absorbing in most cases something between a sixth and a third of tax

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<sup>18</sup> Arslanalp/Tsuda 2012; ECB, Monthly Bulletins, Table 6.2.1

<sup>19</sup> Tcherneva 2006 70.

<sup>20</sup> For a criticism see Fiebiger 2011, Lavoie 2011.

revenues depending on the country and level of government expenditure, in extreme cases more than 50 per cent.<sup>21</sup>

### **Do we have a sovereign-currency system or a banking regime?**

What makes MMT assert that contemporary nation-states are in command of a sovereign-currency system (chartal money)? Partially this is due to the construct of the central bank and government financially constituting one single sector, the public or state sector, in contrast to the private sector. Government and central bank are assumed to cooperate in monetary as well as fiscal policies, and to provide in tandem – in a first, ‘vertical’ step – the economy with the sovereign currency that the banks and the economy need. Banks’ role in this is said to be second or ‘horizontal’, leveraging the ‘vertical’ component of central-bank reserves and cash. Banks are depicted in this as well-intentioned intermediaries between government and central bank, as well as between government and taxpayers.

The ‘horizontal’ leverage thesis actually equals the reserve position doctrine of old.<sup>22</sup> It contradicts MMT’s own view of banks’ pro-active credit creation which determines the entire money supply and which is always accommodated by the central bank.

In this context, the public-private two-sector model adopted by MMT is not particularly useful. It may have useful macroeconomic applications, not however in money and banking. The least that the public-private two-sector model would require is to introduce a financial and a real-economic hemisphere into each sector, as suggested by Hudson.<sup>23</sup> Then, however, the thesis of ‘sovereign government money’ would come apart.

One thing needs to be clear in any model: the distinction between banks and nonbanks as well as certain boundaries between monetary and fiscal responsibilities must not be obscured. In the fractional reserve system such as it stands today, government belongs in the group of nonbanks. Lumping government and central bank together in one and the same category of financial institutions creates confusion rather than simplicity. This applies all the more since central banks today act much more often as bank of the banks rather than bank of the state.

MMT’s description of how fractional reserve banking works would rather suggest siding with NCT’s assessment of the present banking system. That is, there may pro forma still be a two-tier mixed system of sovereign currency and bank money. De facto, however, this has turned into a near-complete banking system. There is a factual ‘monopoly’ of bank money (demand deposits). The banking industry fully determines the entire process of money creation, whereas the government, far from being monetarily sovereign, is indebted to and dependent on the banks.

However, the banking sector’s privilege to create primary credit and deposits at discretion should not be misunderstood to mean that the banking business is based on sheer arbitrariness. Banks have to comply with much regulation in operational detail (though

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<sup>21</sup> Meyer 2011; Monatsbericht des Bundesministeriums der Finanzen, Feb 2013.

<sup>22</sup> Bindseil 2004.

<sup>23</sup> Hudson 2006. He coined the term FIRE sector, i.e. Finance, Insurance, Real Estate. A similar approach is to subdivide equations of circulation into a financial and real-economic hemisphere as put forth in Werner (2005 185) or Huber (1998 224).

combined with far-reaching capital-market and cross-border deregulation in recent decades). They have to observe legal requirements on liquidity, reserves and capital buffers (though previously very low). And there are practical constraints which restrict banks' ability to extend credit in the short run.

The most important restriction is that all banks expand their balance sheet roughly in step so that outflows and inflows among banks are just about offsetting each other. Otherwise those banks that were individually extending too much credit too quickly would run a liquidity risk – possibly even a solvency risk – when, just as to obtain liquidity, they would have to take up too much debt or sell too many assets. In the long run, though, this does not impair the banking industry's ability to get what they want. The banking sector will basically always be able to be fractionally re-financed and generate enough bank money, equity, collateral etc. by itself. This is just a matter of time. The 'masters of the universe' create theirs perhaps not in six days, but certainly in a couple of months or years.

The overriding purpose of the central bank in this has come to be the 'bank of banks', that is, willing lender of last resort in the service of banking interests. Most nation-states may have a currency of their own. The treasuries still deliver coins, as the central banks deliver banknotes and reserves; however, besides these representing the residual part of the money supply, they do this re-actively on pro-active and overriding bank demand. The nations operate on bank money, not sovereign money. The reality of fractional reserve banking has become one of a state-backed rule of the big banking industry.

For sure, the relationship between the banking sector, central banks, treasury, supervisory authorities and parliament is an intricate web of mutual dependencies. In particular, funding of ever higher levels of government debt by way of bank credit involves a vulnerable relationship of being at each other's mercy. The question is who ultimately holds the whip hand. As was rendered obvious by the eurosystem's sovereign-debt crisis, the banks and bond markets were powerful enough to let governments down, but governments could not afford not to bail out failed banks. A short time before, the closure of Lehman Brothers resulted in an unintended lesson for governments; a lesson for *all* governments, not just those of weaker economies. Unless a state decides to recapture from the banking industry the full and unimpaired monetary prerogative of a sovereign state (as explained below), the government of that state is not really sovereign and will have to give in to the demands of the banking industry.

### **Is MMT a state theory or banking theory of money? Full and partial chartalism**

MMT's strange ideas about governments issuing their own money, involves a special understanding of what chartal money is. 'Charta' is derived from Greek and Latin for paper, document, or legal code. Both MMT and NCT agree that 'money is a creature of the legal order', as Knapp put it.<sup>24</sup> The teaching dates back via late-medieval Thomism to Aristotle: 'Money exists not by nature but by law.'<sup>25</sup> The formulation of money as a 'creature of the state' is Lerner's.<sup>26</sup> This contrasts with the classical and Austrian School theory that money is

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<sup>24</sup> Knapp 1905 32–33 and 145; Engl. 1924, reprint 1973, 92–95.

<sup>25</sup> Aristotle, *Ethics* 1133 a 30.

<sup>26</sup> Lerner 1947 313, 1943; Mitchell-Innes 1913 378–390.

a spontaneous creature of markets, or of barter.<sup>27</sup> Most often the latter view is referred to as the commodity theory of money.<sup>28</sup>

At first glance, it might seem as if both MMT and NCT rely on the same notion of chartalism. But seeing money as a creature of the law is less common ground than one might expect. Most people understand by sovereign money or chartal money a means of payment issued by the treasury or the central bank. Similarly, NCT as well as today's monetary reformers attach three aspects to a state's monetary prerogative:

1. determining the national unit of account (currency prerogative)
2. issuing the money denominated in that currency (legal tender prerogative)
3. benefitting from the first-user advantage of new money (prerogative of seigniorage, be this in the form of genuine or interest-borne seigniorage).

MMT, by contrast, only acknowledges the first one, but holds a different view on legal tender and bank money; and remains silent on the question of seigniorage, or comparable monetary privileges of the banking sector. This reflects a typical attitude of nineteenth-century national liberalism, which is particularly present in the State Theory of Money by G. Fr. Knapp and equally in the articles by Mitchell-Innes of that time. To Knapp it was not really important whether a nation's money is issued by the state. This can be, but does not need to be the case. The state's basic role, according to Knapp, is to define the national currency unit, just as the state defines unified weights and measures. The decisive factor for the establishment of a general means of payment then is what a state's treasury accepts in payment of taxes, or the courts in payment of penalty charges, and what state agencies use themselves in fulfilment of their obligations.<sup>29</sup> If the government accepts and uses bank money, then bank money is the official currency (in the sense of means of payment). Knapp put it this way:

All means by which a payment can be made to the state form part of the monetary system. On this basis, it is not the issue, but the acceptance... which is decisive.<sup>30</sup> – A state's money will not be identified by compulsory acceptance, but by acceptance at public cash desks.<sup>31</sup>

This teaching on currency or money was carried forward by Keynes and especially by Lerner and adopted again by MMT. MMT's chartalism can thus be characterized as being partial or incomplete in that it includes only the first of three components. NCT, by contrast, stands for full or complete chartalism encompassing all of the three components. This difference of concept explains why in MMT fractional reserve banking can be interpreted as part of a chartal money system, and why bank money can be seen as an integral part of an alleged sovereign money supply.

For reasons mentioned in the chapter before, such a partial understanding of chartalism, from Knapp to MMT, must be challenged. For about 200 years, fractional reserve banking has proved over and over again to be dysfunctional. In recent decades, moreover, the system has in actual fact mutated from a mixed sovereign and bank money system into a dominating banking system, and from a system based on sovereign currency into a regime pro-actively

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<sup>27</sup> Cf. Hudson 2004 (barter vs debt theories of money).

<sup>28</sup> Cf. Ryan-Collins/Greenham/Werner/Jackson 2012 30–37 (commodity vs credit theory of money).

<sup>29</sup> Knapp 1905 86, 99, 101.

<sup>30</sup> Knapp 1905 86. Engl. Knapp 1973 [1924] 95.

<sup>31</sup> Knapp 1905 Intro p.VI.

determined by bank money. The minor extent to which nation-states still may have monetary sovereignty is open to question. For the most part today, monetary sovereignty is something that has to be recaptured from the banking industry.

**Is all money debt? Money may be credited into existence, but does not need to constitute debt**

The explanations given above may also help to understand why there is a row over whether or not money needs to be debt. Knapp left this question open. Mitchell-Innes, though, insisted on the 'nature of money' to be credit and debt in a rather compulsory way.<sup>32</sup> Bezemer ridiculed monetary reformers by comparing the notion of debt-free money to something as impossible as *dry water*.<sup>33</sup>

From a banking point of view, this is certainly a matter of course and the purest form of banking doctrine: money is a demand deposit created by bank credit, which represents an interest-bearing debt of the primary borrower to the bank. This, however, overlooks that even in fractional reserve banking the situation is not confined to loaning money into existence. Banks can carry out on a large scale what was formerly the privilege of sovereigns, that is, they purchase assets with their own bank money. Banks thus not only loan money into circulation, but also spend it into circulation. Even if this applies to the purchase of assets only, the deposits created need not be redeemed in any case – think of gold, stocks or real estate – and they may not even yield interest or other payments on the principal. Thus, in a number of special cases, even bank money does not need to be debt; or just in the sense of representing a bank liability that needs only small fractional backing by cash and reserves.

In a paper dealing with this matter, Walsh and Zarlenga concluded that 'money need not be something owed and due, it's what we use to pay something owed and due. ... We pay our debt with money.'<sup>34</sup> In real-economic transactions money is used as a means of settlement. As such it does not create or transfer debt. The inscription on dollar notes is absolutely appropriate: 'This note is legal tender for all debts, public and private' – period.

Moreover, the creation and issuance of money can, but need not, involve a financial transaction of lending/borrowing and redeeming. In actual fact and as a rule, traditional coin currencies for about 2,500 years were created and issued debt-free by being spent rather than loaned into circulation by the rulers of the realm.

From a sociological or ethnological point of view, it is plausible to say that, historically, money has developed in a context of social obligations, duties and debts of various kinds. Mutuality, 'tit for tat', demanding things from others and being liable for things to others are the very stuff of social textures. In primary social relations, though, no matter whether archaic or modern, this has nothing to do with money and banking. MMT scholars have devoted some work to showing that debt and credit existed earlier than monetary units of account, and contributed to the latter's development, just as such units of account existed earlier than coin currencies and have contributed to the latter's existence.<sup>35</sup> This makes sense. But why would this be proof of the nature of money to be credit and debt? It is evidence of money as an instrument for

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<sup>32</sup> Mitchell-Innes 1913 392 | 30, see also 391, 393, 395–405; Wray 2012 269.

<sup>33</sup> Dirk Bezemer in an interview with Silfur Egils on Icelandic TV, 14 April 2013.

<sup>34</sup> Walsh/Zarlenga 2012 2.

<sup>35</sup> Cf. the contributions of Wray, Henry, Hudson in Wray (ed.) 2004.

handling credit and debt, and thus cannot in itself normally be expected to be credit and debt. The idea of paying a debt with another debt of the same kind only seems to make sense within a framework of banking-type reasoning. Outside such self-contained reasoning it is less obvious.

The compulsory identification of money and debt just creates banking-doctrinal confusion. It confuses the instrument with the object, i.e. it erroneously identifies the unit of account with what is accounted or measured, and confuses the means of payment with what has to be paid. In addition, as I want to repeat, it ignores or misrepresents 2,500 years of coin currencies when new, additional money typically was not loaned into circulation against interest, but spent into circulation debt-free by the rulers who had reserved for the state the monetary prerogative of coinage and seigniorage, i.e. the second and third component of a state's monetary prerogative.

Debt money, i.e. the false identity of credit/debt and money, is not a necessity at all. What was true for traditional currencies holds all the more true for modern fiat money, because it can freely be created at discretion by those who are authorized to do so. There is no reason why modern money should not be spent into circulation debt-free by a monetary authority rather than being loaned into circulation as debt money.

If money is loaned into circulation (including the purchase of yield-bearing financial assets such as bonds and stocks), this creates interest-borne seigniorage (and maybe capital gains or losses). If money is spent into circulation through government expenditure, or as citizens' dividend, for the purchase of real-economic goods and services, this creates genuine seigniorage free of interest and redemption. Debt-free money, to come back to Bezemer's *dry water* metaphor, might rather be likened to *pure water*, not contingent upon credit and debt at source.

To currency teachings, the false identity of money and credit is the very root cause of the system's dysfunctions. Accordingly, the most fundamental component of any currency teaching is to separate the control of the money supply from the use of that money in banking and finance.<sup>36</sup>

At this point, I would like to insert a semantic consideration. The word 'credit' has a double meaning. On the one hand, the meaning corresponds to making a loan; on the other hand, crediting means writing a have-entry into a ledger or account. In the latter sense, students obtain credits or credit points for successfully completing courses, but these credits do not even represent money, much less a loan.

If bank accounts are credited, the amount credited is money. This money can, but need not, come from a loan; it can equally be the proceeds of sales, earned or financial income, a subsidy or welfare payment, or a private gift or donation. In this sense, 'crediting' is just another word for adding non-cash money to an account. Accordingly, modern money is surely 'credited' to an account, but the kind of underlying transaction – loan, purchase, gift – is of course not at all predetermined by the write process of crediting.

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<sup>36</sup> Whale 1944 109.

## How to account for sovereign money

Two members of Monetative, T. Gudehus and Th. Mayer, have identified up to seven ways in which a monetary authority, in this case the central bank, can account for debt-free money issuance in double-entry book-keeping.<sup>37</sup> All of these options are technically feasible, though not all are equally sensible and adequate.

Not really adequate, for example, is accounting for genuine seigniorage by making a loan to the government, but free of interest and without specified maturity, and re-interpreting this as a sort of perma-credit that the government is not really expected to pay back. Correspondingly, the central bank has perma-claims and perma-liabilities on its balance sheet, representing that part of the stock of money that has been issued through genuine seigniorage.

It is more adequate to proceed in analogy to the way in which coin is normally accounted for. That is, cash in vault as well as sovereign money-on-account would be capitalized upon creation, thus extending the central bank's balance sheet, and then given away for free to the treasury, or sold to the banks, thus contracting the balance sheet again; or loaned to banks, thus prompting an asset swap from liquid money to a credit claim, and a liability swap from own capital to overnight liability.

## Are sector-account imbalances and sound public finances irrelevant?

There is yet another aspect of MMT that should be addressed. It concerns sector balances, as already discussed (a public and a private sector, and if need be a foreign one). The starting point is that in a system of sector accounts the sum of all balances nets out to zero.<sup>38</sup> Sector balances owe much to Keynes. The emphasis of Keynes was on identifying *imbalances*, which were seen as problematic, and more problematic the bigger they grew. The Bancor Plan for a world trading order that he wanted to put onto the agenda of Bretton Woods in 1944 was designed to avoid big trade and current-account imbalances.

MMT, however, and again not too explicit about this, suggests a re-interpretation of public-private sector balances. The emphasis is on pointing out that for net government debt in the public sector there are corresponding net fortunes in the private sector; which is to say that within the oversimplified framework of this two-sector model, private financial fortunes necessitate public debt – in any case both sides netting out to zero, as if this were to say, 'you see, things are netting out, no problem here'.

But problems there are.<sup>39</sup> Interest payments on ever bigger public debt are a drain on tax revenues and curtail a government's scope of action. Thus, either additional debt will have to be incurred, or ever more public functions will be chronically underfunded. At the same time, much of the public debt, in Europe actually the major part, is held by banks, another big slice by other financial institutions such as funds and insurance companies, and only a minor part of about 10–15% by private persons. As a result, the receipt of related interest payments is very unequally distributed. In addition, much of the government debt is held by foreigners. Beyond critical thresholds this comes with political and economic problems of its own.

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<sup>37</sup> Cf. Gudehus 2013; Mayer 2013.

<sup>38</sup> Wray 2012 xv, 1–38.

<sup>39</sup> Also cf. Roche 2011.

‘Balances netting out’ is a mere book-keeping statement. It does not explain by itself its meaning in terms of actual economic conditions.

MMT, however, tells us not to bother about the level of public debt and soundness of public finances. The government is not really supposed to pay down its allegedly just ‘formal’ debt. It hardly makes for sound finances to enter claims in the banks’ balance sheets and take liabilities on the government’s books, while declaring the corresponding items not really to be claims and debts. To Mosler, financial restraints in a fiat money system are ‘imaginary’.<sup>40</sup> Wray contends that ‘for a sovereign nation, ‘affordability’ is not an issue; it spends by crediting bank accounts with its own IOUs, something it can never run out of’.<sup>41</sup> This is not totally unfounded, but overshooting the mark by far. Any treasurer of a sovereign state with a currency of its own *and* rotten finances can tell.<sup>42</sup> Printing money cannot compensate for real-economic deficiencies, but compounds these through inflation, financial asset inflation, and a declining exchange rate of the currency.

I cannot go any further into that sector-balances part of MMT here. It should be noted, though, that relying on the two-sector model combines with the Lerner legacy of ‘functional finance’, which turned out to be quite dysfunctional in practice due to its laxness about deficits and debt. Unlike Keynes, Lerner disapproved of monetary quantity theory and the notion of sound finances, as does MMT today. Mosler’s original MMT manifesto was titled *Soft Currency Economics*. Presumably this was not by mistake. As if in a sovereign-money system principles of sound finance could be suspended. I would not want to put myself out for monetary reform, just to see unsound money-printing by the banks being replaced with unsound money-printing by the government.

## Conclusion

Coming back now to the question of whether MMT might be supportive of monetary reform. The answer, on balance, is not as positive as one might have expected. MMT, in contrast to its self-image, represents banking teaching much more than currency theory. Its understanding of sovereign currency and monetary sovereignty is misleadingly incomplete. MMT and NCT, together with post-Keynesians, circuitists and others, share a number of views on contemporary banking and credit creation *vis-à-vis* more orthodox positions. But divergences between MMT and NCT as discussed will be hard to bridge.

There might be some common ground if MMT would develop an explicit concept for doing away with that ‘strange prohibition to put on a sovereign issuer of the currency’, making sure that central banks become again ‘bank of the state’ and that governments can directly spend genuine seigniorage obtained from sovereign money creation. Direct issuance of sovereign money – this might then indeed be a key premise one is pushing in common. For this to be credible, however, MMT would have to change its mind about fractional reserve banking and bank money; which in turn comes with the implication to upgrade MMT’s partial understanding of chartalism to a full understanding of what monetary sovereignty encompasses. Moreover, some such common ground would imply for MMT to think over its contempt of monetary quantity theory and carelessness about deficits and debt.

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<sup>40</sup> Mosler 1995 14.

<sup>41</sup> Wray 2012 194.

<sup>42</sup> Also see Lavoie 2011 9.

The situation is strangely mirror-inverted when comparing MMT to the Neo-Austrian School. MMT has a comparatively advanced understanding of modern money, but does, irritatingly, not see real problems with the present system of fractional reserve banking. The Neo-Austrian School, conversely, still rests on a traditional concept of cash economies, but is very critical of fractional reserve banking and unsound levels of money, credit and debt.<sup>43</sup> New Currency Theory extends beyond both of the two in that it has developed an advanced understanding of modern money, identifies serious deficiencies of fractional reserve banking and thus advocates monetary reform in favor of re-implementing a state's full monetary prerogative.

## References

Arslanalp, Serkan / Tsuda, Takahiro 2012: Tracking Global Demand for Advanced-Economy Sovereign Debt, *IMF Working Paper*, WP/12/284.

Bindseil, Ulrich 2004: The Operational Target of Monetary Policy and the Rise and Fall of Reserve Position Doctrine, *ECB Working Paper Series*, No. 372, June 2004.

Fiebiger, Brett 2011: MMT and the 'Real-World' Accounting of  $1-1>0$ , PERI Working Paper Series No.279, University of Massachusetts Amherst. [www.peri.umass.edu/fileadmin/pdf/working\\_papers/working\\_papers\\_251-300/WP279.pdf](http://www.peri.umass.edu/fileadmin/pdf/working_papers/working_papers_251-300/WP279.pdf)

Fullwiler, Scott T. / Kelton, Stephanie / Wray, L. Randall 2012: Modern Money Theory: A Response to Critics, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2008542](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2008542).

Gudehus, Tim 2013: Geldordnung, Geldschöpfung und Staatsfinanzierung, *Zeitschrift für Wirtschaftspolitik*, 62.Jg, 2 (2013) 194–222. Also available at [vollgeld.de](http://vollgeld.de)>Papers und Manuskripte.

Henry, John F. 2004: The Social Origins of Money: The Case of Egypt, in: Wray (ed.) 2004 79–98.

Huber, Joseph / Robertson, James 2000: Creating New Money, London: New Economics Foundation.

Huber, Joseph 2010: *Monetäre Modernisierung*, Marburg: Metropolis.

Huber, Joseph 2013: *Modern Money and Sovereign Currency*, [sovereignmoney.eu/modern-money-and-sovereign-currency/](http://sovereignmoney.eu/modern-money-and-sovereign-currency/)

Huber, Joseph 1998: *Vollgeld*, Berlin: Duncker & Humblot

Hudson, Michael 2004: The Archeology of Money. Debt versus Barter – Theories of Money's Origins, in: Wray (ed.) 2004 99–127.

Hudson, Michael 2006: Saving, Asset-Price Inflation, and Debt-Induced Deflation, in Wray, L. Randall / Forstater, Matthew (eds.) 2006: Money, Financial Instability and Stabilization Policy, Cheltenham: Edward Elgar, 104–124.

Huerta de Soto, Jesús 2009: *Money, Bank Credit, and Economic Cycles*, Auburn, AL: Ludwig von Mises Institute, 2<sup>nd</sup> edition (1<sup>st</sup> 2006).

Jackson, Andrew / Dyson, Ben 2013: *Modernising Money. Why our monetary system is broken and how it can be fixed*, London: Positive Money.

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<sup>43</sup> Cf. Huerta de Soto 2009.

Jackson, Andrew 2013: *Sovereign Money*, ed. by Ben Dyson, London: Positive Money, [www.positivemoney.org](http://www.positivemoney.org)

Keynes, John Maynard 1923: *A Tract on Monetary Reform*, London: Macmillan.

Knapp, Georg Friedrich 1905: *Staatliche Theorie des Geldes*, Leipzig: Duncker & Humblot. Engl. 1924: *The State Theory of Money*, London: Macmillan & Co., republ. 1973, New York: Augustus Kelley.

Lavoie, Marc 2011: The monetary and fiscal nexus of neo-chartalism. A friendly critical look, University of Ottawa, Dep. of Economics, Available at [www.boeckler.de/pdf/v\\_2011\\_10\\_27\\_lavoie.pdf](http://www.boeckler.de/pdf/v_2011_10_27_lavoie.pdf).

Lerner, Abba P. 1943: Functional Finance and the Federal Debt, in: Colander, David C. (ed.), *Selected Economic Writings of Abba P. Lerner*, New York University Press 1983, 297–310. First publ. in *Social Research*, Vol.10 (1943) 38–51. Available at: [http://k.web.umkc.edu/kelton/Papers/501/functional per cent 20finance.pdf](http://k.web.umkc.edu/kelton/Papers/501/functional_per_cent_20finance.pdf).

Lerner, Abba P. 1947: Money as a Creature of the State, *American Economic Review*, Vol.37, May 1947, No.2, 312–317.

Mayer, Thomas 2013: Sieben Verfahren, Vollgeld in Umlauf zu bringen und zu verbuchen, available at [vollgeld.de>Papers und Manuskripte](http://vollgeld.de/Papers%20und%20Manuskripte).

Meyer, Dieter 2011: *Die Schuldenfalle. Eine Untersuchung der Staatsverschuldung 1965–2025*, Hannover: Pinkvoss.

Mitchell-Innes, Alfred 1913: What is money? *The Banking Law Journal*, Vol. 30, no.5, May 1913, 377–408. Reprinted in: L.R.Wray (ed.) 2004, 14–49.

Mitchell-Innes, Alfred 1914: The Credit Theory of Money, *The Banking Law Journal*, Vol. 31, Jan–Dec 1914, 151–68. Reprinted in: L.R.Wray (ed.) 2004, 50–78.

Mosler, Warren 1995: Soft Currency Economics, [www.gate.net/~mosler/ frame001.htm](http://www.gate.net/~mosler/frame001.htm).

Poitras, Geoffrey 1998: Robert Torrens and the Evolution of the Real Bills Doctrine, *Journal of the History of Economic Thought*, Vol.20, No.4, 1998, 479–498.

Robertson, James 2012: *Future Money*, Totnes: green books.

Roche, Cullen 2011: A Critique of MMT, Modern Monetary Theory, [http://pragcap.com/ mmt-critique](http://pragcap.com/mmt-critique), September 7th, 2011.

Ryan-Collins, Josh / Greenham, Tony / Werner, Richard / Jackson, Andrew 2012: *Where Does Money Come From? A guide to the UK monetary and banking system*, 2<sup>nd</sup> edition, London: New Economics Foundation.

Sargent, Thomas J. 1979: *Macroeconomic Theory*, New York: Academic Press.

Tcherneva, Pavlina 2006: Chartalism and the tax-driven approach, in: Arestis, Philip / Sawyer, Malcolm (eds.), *A Handbook of Alternative Monetary Economics*, Cheltenham: Edward Elgar, 69–86.

Walsh, Steven / Zarlenga, Stephen 2012: Evaluation of Modern Monetary Theory, American Monetary Institute research paper, [www.monetary.org/mmtevaluation](http://www.monetary.org/mmtevaluation).

Werner, Richard A. 2005: *New Paradigm in Macroeconomics*, New York: Palgrave/ Macmillan.

Whale, P. Barrett 1944: A Retrospective View of the Bank Charter Act of 1844, *Economica, New Series*, Vol.11, No.43, Aug 1944, pp.109–111.

Wray, L. Randall (ed.) 2004: *Credit and State Theories of Money. The Contributions of A. Mitchell-Innes*, Cheltenham: Edward Elgar Publishing.

Wray, L. Randall / Bell, Stephanie 2004: Introduction to: Wray (ed.) 2004 8–18.

Wray, L. Randall 2011: Minsky Crisis, *Levy Economics Institute of Bard College, Working Papers* No. 659, [www.levyinstitute.org/pubs/wp\\_659.pdf](http://www.levyinstitute.org/pubs/wp_659.pdf).

Wray, L. Randall 2012: *Modern Money Theory. A Primer on Macroeconomics for Sovereign Monetary Systems*, London/New York: palgrave macmillan.

Zarlenga, Stephen A. 2002: *The Lost Science of Money. The Mythology of Money – the Story of Power*, Valatie, NY: American Monetary Institute.

Zarlenga, Stephen A. 2002b: Critique of Innes' Theory, [www.monetary.org/critique-of-innes/2012/06](http://www.monetary.org/critique-of-innes/2012/06).

**Author contact:** [huber@soziologie.uni-halle.de](mailto:huber@soziologie.uni-halle.de)

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SUGGESTED CITATION:

Joseph Huber, "Modern Money Theory and New Currency Theory", *real-world economics review*, issue no. 66, 13 January 2014, pp. 38-57, <http://www.paecon.net/PAEReview/issue66/Huber66.pdf>

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## Fama-Shiller, Economic Sciences Prize Committee and the “efficient markets hypothesis”

Bernard Guerrien and Ozgur Gun

[Université Paris 1 and Université de Reims-Champagne Ardennes, France]

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“People with knowledge of financial economics may be further surprised that this year Eugene Fama and Robert Shiller are both recipients. Prof Fama made his name by developing the efficient market hypothesis, long the cornerstone of finance theory. Prof Shiller is the most prominent critic of that hypothesis. It is like awarding the physics prize jointly to Ptolemy for his theory that the Earth is the centre of the universe, and to Copernicus for showing it is not.” (John Kay, 2013).

“The old joke about the economics Nobel was that it had been shared by two men who disagreed with each other: Friedrich von Hayek and Gunnar Myrdal. Profs Fama and Shiller, at first glance, are another example: Prof Fama showed that markets were efficient; Prof Shiller showed that they were not.” (Tim Harford, 2013)

These two comments are typical of the journalists or academics’ reactions after the *Economic Sciences Prize Committee of the Royal Swedish Academy of Science* announced that Fama, Hansen and Shiller were awarded with the 2013 prize in economics. Everybody is convinced that the prize committee wanted to highlight the importance of the “efficient markets hypothesis” (EMH). This may be true, but if so, the committee’s praise took a very indirect and subtle manner, since in its “scientific background” report, [Understanding Asset Pricing](#), the Economic Sciences Prize Committee *never mentions* this “hypothesis” and never uses the terms “efficient markets” or “market efficiency”. We see two reasons why they preferred to abstain from mentioning these terms. (1) Efficiency is a well-defined concept in economics, which means it cannot be used in a vague or ambiguous way. (2) It is unknown what exactly the “efficient markets hypothesis” is, as it has never been clearly defined.

### Why the prize committee fails to mention “market efficiency” and the EMH

The phrase “efficient markets” was coined by Fama in his 1970 paper [“Efficient Capital Markets: A Review of Theory and Empirical Works”](#). As its title lets on, this paper is simply a “review” of an idea that has been around for quite some time and to which Fama is only giving a new label. If none of the authors mentioned in the paper (Bachelier, Cowles, Kendall, Workings, Osborne, Samuelson, among others) ever used the expression “market efficiency” when they discussed this idea, it is not because they didn’t think of it. It is because they knew, obviously, that efficiency, in economics, is a synonym of a very different concept: the Pareto optimality – that is, a very strong condition on resource allocation. So, it is quite surprising how economists didn’t question the expressions “efficient markets” or “market efficiency” and even accepted it. To be precise, those expressions have only been used in finance, but nobody seems to object when finance economists, such as Fama, suggest that they concern resource allocation – “market efficiency” in finance, whatever it means, is supposed to imply

efficiency in the economic sense (Pareto optimality).

Another surprising fact about Fama's 1970 paper is that the "efficient markets hypothesis" is never really defined. The definition of the "hypothesis" is only given through a metaphor: according to Fama, an "efficient market" is "a market in which prices at any time 'fully reflect' all available information" (Fama, 1970, p 383). The use of quotation marks around the words "fully reflect" implies that this expression needs itself to be defined. In 1970, Fama seemed to be aware of this problem as he explains, a few lines further, that:

"the definitional statement that in an efficient market prices 'fully reflect' available information is so general that it has no empirical testable implication. To make the model testable, the process of price formation must be specified in more details. In essence, we must define somewhat more exactly what is meant by the term 'fully reflect'".

But, immediately thereafter, he writes: "One possibility would be to posit that ...". Thus, "fully reflect" could have many possible meanings ("possibilities") and, consequently, so does the expression "market efficiency". From the beginning, the worm was in the fruit<sup>1</sup>.

The fact that the EMH was only vaguely defined in Fama's 1970 paper has another surprising consequence: as Stephen LeRoy pointed out in a "comment" published in 1976, the mathematical presentation of this "hypothesis" is flawed – more precisely, it is tautological<sup>2</sup>. The prize committee couldn't ignore Fama's 1970 paper anomalies. It is probably why, in its 2013 report, it doesn't mention EMH and never uses the expressions "fully reflect" or even "market efficiency". It also eludes the opposition between Fama (Ptolemy) and Shiller (Copernicus) – or vice versa. On the contrary, it presents them as complementary – Fama is right in "the short term" and Shiller in "longer terms". Both have contributed to "understanding asset prices" and deserve to share the prize<sup>3</sup>. *QED*.

### **The justification of the prize by the Economic Sciences Prize Committee**

The committee's report uses moderately the language of finance, but enough to make it difficult to identify – at least for the non-specialist – the "contributions" of the awardees. Fortunately, in the report, two figures help us to understand where lays the problem with the "efficient market hypothesis".

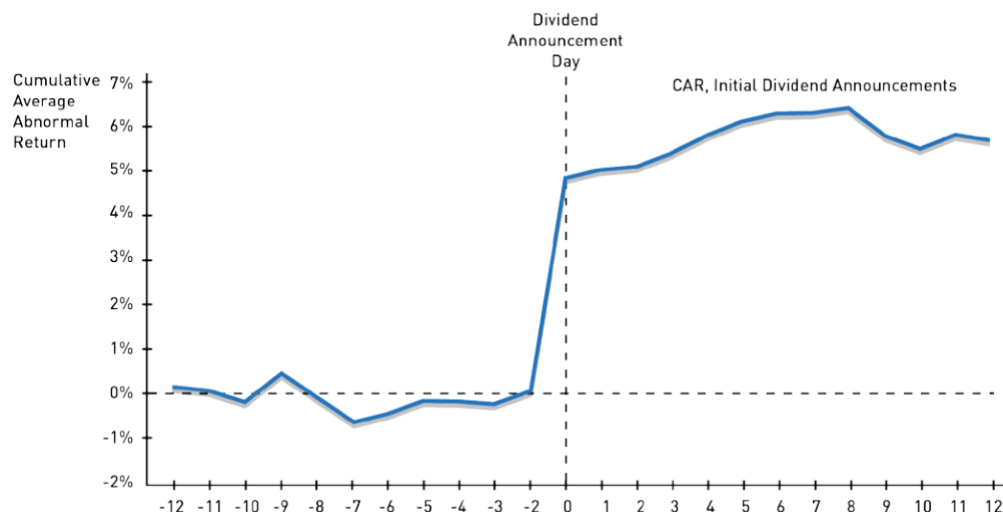
Figure 1 gives an example of how new information (here, dividend announcements) is "quickly incorporated" in stock prices, "without generating predictable price movements" (ESPC report, p 12). The horizontal axis shows trading days before and after the announcement. The price adjustment is quick enough to make unsuccessful any attempt to gain by buying the stock "immediately" after the announcement and selling it later.

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<sup>1</sup> In fact, quotations marks for "fully reflect" quickly disappeared in Fama's and others' papers. Everybody seemed to know what this expression means: the force of habit ... Twenty years later, in a paper called "Efficient Capital Markets II", the 1970 EMH has become a "simple statement": "I take the market efficiency hypothesis to be the simple statement that security prices fully reflect all available information" (Fama 1990, p 1575).

<sup>2</sup> For more details, see <http://rwer.wordpress.com/2011/03/11/rwer-issue-56-guerrien-and-gun/>.

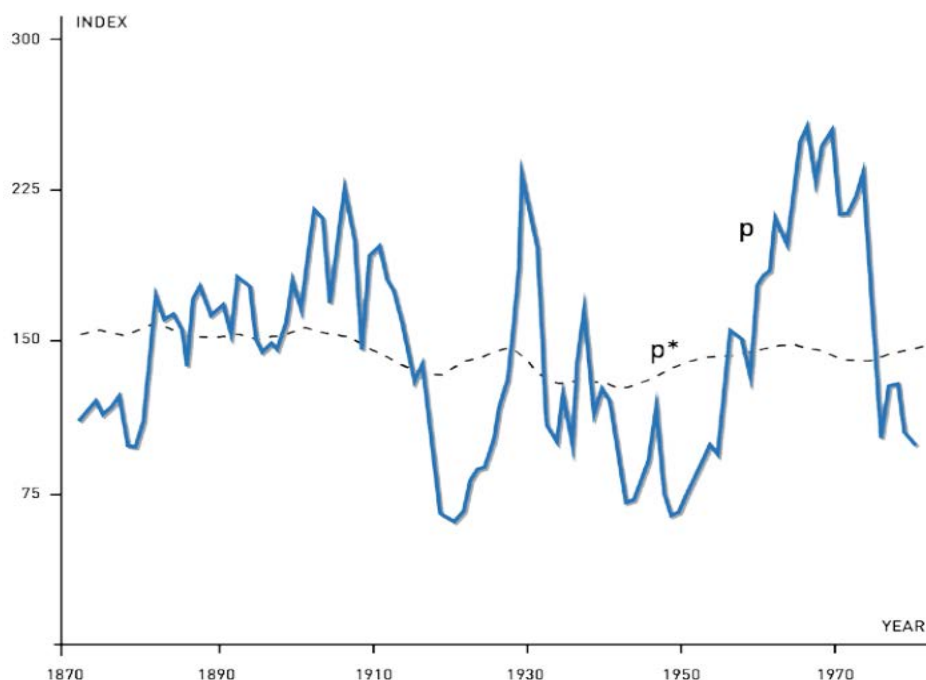
<sup>3</sup> Hansen, an econometrician who shared the prize with Fama and Shiller, refuses to choose between them about "market efficiency" (see [http://economix.blogs.nytimes.com/2013/11/16/a-talk-with-lars-peter-hansen-nobel-laureate/?\\_r=0](http://economix.blogs.nytimes.com/2013/11/16/a-talk-with-lars-peter-hansen-nobel-laureate/?_r=0))



**Figure 1:** Abnormal stock returns for initial dividend announcements

“Market efficiency” means, in this case, that “abnormal returns” are only possible by chance - the chance to possess the stock before the announcement. Said in more general terms, this means that it is not possible “to beat the market”. This is the central contention of Fama’s work. There may be anomalies – the possibility to make “abnormal returns” – but those disappear as soon as they are detected by “the markets” (investors, or some of them).

The other figure in the Economic Sciences Prize Committee report (Figure 2) gives the Real Standard and Poor’s Composite Stock Price Index,  $p$ , compared to an “*ex post* rational price”,  $p^*$ , during one century (1870 and 1970)”.



**Figure 2:** Real Standard and Poor’s Composite Stock Price Index (solid line  $p$ ) and *ex post* rational price (dotted line  $p^*$ ), 1871–1979, both detrended by dividing a long-run exponential growth factor.

It is obvious at first sight that figure 1 and figure 2 describe two different kinds of phenomena: the first one is relative to variations lasting a few days, the other is relative to movements throughout a century! For Fama, figure 1 validates the “efficient markets hypothesis”, and for Shiller figure 2 invalidates it – deviations of  $p$  from  $p^*$  are too important to be random. But the committee doesn’t want to get involved with that “hypothesis” and prefers to establish a link between Fama and Shiller through “predictability”:

“In the short term, predictability in stock returns is very limited, which is consistent with stock prices quickly reflecting new public information about future cash flows” and “In the longer term, there is economically significant predictability in stock returns”<sup>4</sup> (ESPC report, p 42).

Fama and Shiller are both awarded for their (complementary) work on “short term” and “longer term” predictability, respectively. The prize share is justified. Except that nobody – including Fama and Shiller themselves – agrees with this interpretation! For Fama, financial markets are almost always “efficient”, because stock returns are not predictable, and for Shiller they are not, because of stock prices “excess volatility”. There is, in fact, a very large consensus about the first point – the Economic Sciences Prize Committee’s “short term”. It is not possible to predict stock returns and, thus, “to beat the market”. The disagreements arise about “the longer term” and its “joint hypothesis” problem.

### **Joint hypothesis, “rational prices” and “market efficiency”**

In his “reply” to LeRoy’s comment on his 1970 paper, Fama explained that “tests must be based on a model of equilibrium, and any test is a joint test of efficiency and of the model of equilibrium” (Fama, 1976, p 143). That is, in committee terms: “postulating a specific model of asset prices as a maintained hypothesis allows further study of whether deviations from that model are random or systematic” (p 10). In figure 2,  $p^*$  is the model of equilibrium price and  $p - p^*$  the deviation from that model.

Any test of “efficiency” supposes, thus, that a model of equilibrium has been chosen. In the example given by figure 2, the model of equilibrium price  $p^*$  of a firm’s stock is given by the present value of its actual subsequent (future) dividends – that is,  $p^*$  is the “fundamental value” of the firm, in a perfect competitive equilibrium. As the future is, by nature, unknown, the assumption of rational expectations (or perfect foresight) is added to the model and, then, the “*ex post* rational price”  $p^*$  of figure 2 can be computed. “Future dividends” in, say, 1947, became actual (observed *ex post*) dividends between, say, 1947 and 1957 – the present value  $p^*$  is computed using actual discount factors during the same period. “Rational” means here “perfect foresight”.

In figure 2, deviations between observed prices  $p$  and “rational prices”  $p^*$  are too important to be attributed to randomness. If they are taken as an indicator of “market efficiency”, the EMH must be rejected. Now, proponents of the “hypothesis” can blame the model of equilibrium which is “jointly tested” with “market efficiency”. As the committee argues: “finding that deviations are systematic might be attributed to an incorrectly specified ...asset pricing model” (p 9). The “efficient markets hypothesis” cannot be tested separately from an asset pricing model – thus, it is not falsifiable.

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<sup>4</sup> This predictability is quite special: “expected returns in ‘good’ times (at the peak of the business cycle) are lower than expected returns in ‘bad’ times” and “expected returns in ‘bad’ times (at the bottom of the business cycle) are higher than expected returns in ‘good’ times” (ESPC report, p 42). Whoever knows when the business cycle is at its peak or its bottom?

Fama, Shiller and many others proposed different kinds of “models of equilibrium”. The most popular among them is the *CCAPM* (*Consumption Capital Asset Price Model*) which:

“extends the static *CAPM* (*Capital Asset Price Model*) theory of individual stock prices by providing a dynamic consumption-based theory of the determinants of the valuation of the market portfolio” (Economic Sciences Prize Committee, p 7).

Behind these impressive words, there is the ghostly “representative agent”:

“The most basic dynamic pricing model, the *CCAPM*, starts from the assumption that the economy can be described by a representative agent who maximizes expected utility” in a complete set of markets (*ibid*, p 21).

There are countless ways to modify the parameters of this “basic model” with a view to “better fit the data”. For example, “recursive preferences”, “wealth”, “sensitive to *changes* in consumption levels”, “representative agent’s uncertainty about the true model (sic)” have been considered – they all concern representative agent preferences or “psychology”. But, according to the committee, “it is fair to say that currently no widely accepted ‘consensus model’ exists”. We can add it will never exist, with the concept of a representative agent being so absurd.

#### **Fama’s contorsions in defense of “market efficiency”**

Fama couldn’t ignore the attacks from Shiller and others. According to the former, “market efficiency” is not at question, the problem coming from the equilibrium model – what he identified as “the bad- model problem”. In a paper titled “Market efficiency, long-term returns, and behavioral finance”, he intends to explain by a bad-model problem the differences between the kind of situation depicted in figures 1 and 2:

“The bad-model problem is less serious in event studies that focus on short return windows (a few days) since daily expected returns are close to zero and so have little effect on estimates of unexpected (abnormal) returns. But the problem grows with the return horizon. A bad-model problem that produces a spurious abnormal average return of  $x\%$  per month eventually becomes statistically reliable in cumulative monthly abnormal returns” (Fama 1998, p 291).

He accepts that there are “cumulative abnormal returns” but continues to defend “market efficiency”<sup>5</sup>, giving to it a new meaning: “overreaction” of stock prices are in the more or less long term offset by “underreaction”. Apparent gains, for example during a bubble, are offset by losses when the bubble bursts. To “the hope” of Michealy et al. (Michealy et al. 1995) that “future research will help understand why the markets appear to overreact in some circumstances and underreact in others”, Fama replies:

“the market efficiency hypothesis offers a simple answer to this question – chance. Specifically, the expected value of abnormal returns is zero, but

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<sup>5</sup> The committee adopts also the short term and “longer term” approach, but it doesn’t use the terms “bad model” and “market efficiency”.

chance generates apparent anomalies that split randomly between overreaction and underreaction" (*ibid*, p. 287).

We are far away from the idea that an efficient capital market is, in Fama's words, "a market in which prices provide accurate signal for resource allocation" (Fama 1970, p 383). This is typical of Fama's attitude. When "market efficiency" is under attack – remember that there were a lot of financial crises all over world during the 80s and the 90s –, he adopts the "(abnormal) gains only by chance" exit strategy. If necessary, he adds the "bad-model" argument: all the troubles come from the theoreticians and governments (badly) advised by economists. For Fama, finance is never guilty.

## Conclusion

In the first edition of *The New Palgrave: A Dictionary of Economics* (1987), Burton Malkiel writes under the entry "efficient market hypothesis":

In general, the empirical evidence in favor of EMH is very strong. Probably no other hypothesis in economics or finance has been more extensively tested (p 122).

In the second edition of the same *Dictionary*, Andrew Lo explains that the "efficient markets hypothesis" was:

"...developed independently by Paul A. Samuelson and Eugene F. Fama in the 1960s..." and that "...it has been applied extensively to theoretical models and empirical studies of financial securities prices, generating considerable controversy as well as fundamental insights into the price-discovery process" (Lo, 2007)<sup>6</sup>.

How is it possible that a theory with "very strong" empirical evidence in 1987 has "generated considerable controversy" twenty years later – without any important change in evidence? It is obvious that Malkiel refers to "the market can't be beaten" hypothesis – the only one with very strong empirical evidence, before and after the 80s. On the other hand, Lo is totally confused when: (1) He attributes the EMH to Samuelson, who warned against any attempt to establish a link between his theorem ("properly anticipated prices fluctuate randomly") and efficiency<sup>7</sup>. (2) He says that the EMH provides "fundamental insights into the price-discovery process". Andrew Lo is here referring to the models of equilibrium needed for the EMH "joint test". However, these models have *nothing to do* with the EMH – as the Economic Sciences Prize Committee implicitly recognizes it in its report "Understanding Asset Prices".

It is surprising, and disappointing, that the most prestigious dictionary in Economics entertains the confusion initiated by Fama and continued by Shiller and others – even if it is with opposed (ideological) intentions.

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<sup>6</sup> [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=991509](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=991509)

<sup>7</sup> "One should not read too much into the established theorem. It does not prove that actual competitive markets work well. It does not say that speculation is a good thing or that randomness of price changes would be a good thing. It does not prove that anyone who makes money in speculation is ipso facto deserving of the gain or even that he has accomplished something good for society or for anyone but himself" (Samuelson, 1965, p 48).

## References

Malkiel, Burton (1987) "Efficient market hypothesis", *New Palgrave: A Dictionary of Economics*, p 120-123, Macmillan

Economic Sciences Prize Committee of the Royal Swedish Academy of Science (2013), *Understanding Asset Pricing*, [http://www.nobelprize.org/nobel\\_prizes/economic-sciences/laureates/2013/advanced-economicsciences2013.pdf](http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2013/advanced-economicsciences2013.pdf)

Fama E. (1970), "Efficient Capital Markets: a Review of Theory and Empirical Work", *Journal of Finance*, 25 (2), p. 383-417.  
<http://efinance.org.cn/cn/fm/Efficient%20Capital%20Markets%20A%20Review%20of%20Theory%20and%20Empirical%20Work.pdf>

Fama E. (1976), "Reply", *Journal of Finance*, 31 (1), p. 143-145.

Fama E. (1991), "Efficient capital markets: II", *The Journal of Finance*, 46 (5), p. 1575-1617.  
[http://efinance.org.cn/cn/fm/Efficient markets II.pdf](http://efinance.org.cn/cn/fm/Efficient%20markets%20II.pdf)

Fama E. (1998), "Market efficiency, long-term returns, and behavioral finance", *Journal of Financial Economics* 49, p. 283-306.  
<http://www.sciencedirect.com/science/article/pii/S0304405X98000269>

Tim Harford (2013)  
<http://www.ft.com/intl/cms/s/0/78175d1e-34c7-11e3-8148-00144feab7de.html?siteedition=intl#axzz2ljp0aAt>).

Kay, John, <http://www.johnkay.com/2013/10/16/the-nobel-committee-is-muddled-on-the-nature-of-economics>

LeRoy S. (1976), "Efficient Capital Markets: a Comment", *Journal of Finance*, 31 (1), p. 139-141.  
<http://e-m-h.org/LeRo76.pdf>

Lo Andrew (2008) "Efficient market hypothesis", *New Palgrave: A Dictionary of Economics*, Second Edition, Macmillan

Michaely R., Thaler R., Womack K. (1995), "Price reaction to dividend initiations and omissions", *Journal of Finance*, 50, 573-608.

Samuelson P.A. (1965), "Proof That Properly Anticipated Prices Fluctuate Randomly", *Industrial Management Review*, vol. 6, p. 41-50. <http://www.e-m-h.org/Samuelson1973b.pdf>

**Author contact:** [bguerrien@sfr.fr](mailto:bguerrien@sfr.fr)

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### SUGGESTED CITATION:

Bernard Guerrien and Ozgur Gun, "Fama-Shiller, Economic Sciences Prize Committee and the "efficient markets hypothesis", *real-world economics review*, issue no. 66, 13 January 2014, pp. 58-64, <http://www.paecon.net/PAERview/issue66/GuerrienGun66.pdf>

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# How capitalists learned to stop worrying and love the crisis

Shimshon Bichler and Jonathan Nitzan <sup>1</sup>

[Israel and York University, Canada]

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Economic, financial and social commentators from all directions and of all persuasions are obsessed with the prospect of recovery. The world remains mired in a deep, prolonged crisis, and the key question seems to be how to get out of it.

There is, however, a prior question that few if any bother to ask: *Do capitalists want a recovery in the first place? Can they afford it?*

On the face of it, the question sounds silly: of course capitalists want a recovery; how else can they prosper? According to the textbooks, both mainstream and heterodox, capital accumulation and economic growth are two sides of the same process. Accumulation generates growth and growth fuels accumulation, so it seems bootless to ask whether capitalists want growth. Growth is their lifeline, and the more of it, the better it is.

Or is it?

## Accumulation of what?

The answer depends on what we mean by capital accumulation. The common view of this process is deeply utilitarian. Capitalists, we are told, seek to maximize their so-called 'real wealth': they try to accumulate as many machines, structures, inventories and intellectual property rights as they can. And the reason, supposedly, is straightforward. Capitalists are hedonic creatures. Like every other 'economic agent', their ultimate goal is to maximize their utility from consumption. This hedonic quest is best served by economic growth: more output enables more consumption; the faster the expansion of the economy, the more rapid the accumulation of 'real' capital; and the larger the capital stock, the greater the utility from its eventual consumption. Utility-seeking capitalists should therefore love booms and hate crises.<sup>2</sup>

But that is not how real capitalists operate.

The ultimate goal of modern capitalists – and perhaps of all capitalists since the very beginning of their system – is not utility, but power. They are driven not to maximize hedonic pleasure, but to 'beat the average'. This aim is not a subjective preference. It is a rigid rule, dictated and enforced by the conflictual nature of the capitalist mode of power. Capitalism pits capitalists against other groups in society, as well as against each other. And in this

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<sup>1</sup> Shimshon Bichler teaches political economy at colleges and universities in Israel. Jonathan Nitzan teaches political economy at York University in Canada. All of their publications are available for free on *The Bichler & Nitzan Archives* (<http://bnarchives.net>). Research for this paper was partly supported by the SSHRC.

<sup>2</sup> For Marx, the end goal of accumulation is accumulation itself: 'Accumulate, Accumulate! That is Moses and the Prophets! ... Accumulation for accumulation's sake, production for production's sake' (Marx 1867: 652). Contemporary Marxists, however, equate accumulation with the growth of the so-called 'real' capital stock, as published by the (neoclassical) national accounts. And since the latter accounts (supposedly) measure the util-generating capacity of said capital (OECD 2001), the 'Marxist capitalist', just like her mainstream counterpart, ends up pursuing hedonic pleasure...

multifaceted struggle for power, the yardstick is always relative. Capitalists are compelled and conditioned to accumulate *differentially*, to augment not their absolute utility but their earnings *relative to others*. They seek not to perform but to *out-perform*, and outperformance means *re-distribution*. Capitalists who beat the average redistribute income and assets in their favour; this redistribution raises their share of the total; and a larger share of the total means greater power stacked against others.

Shifting the research focus from utility to power has far-reaching consequences. Most importantly, it means that capitalist performance should be gauged not in absolute terms of 'real' consumption and production, but in financial-pecuniary terms of relative income and asset shares. And as we move from the materialist realm of hedonic pleasure to the differential process of conflict and power, the notion that capitalists love growth and yearn for recovery is no longer self evident.

The accumulation of capital as power can be analyzed at many different levels. The most aggregate of these levels is the overall distribution of income between capitalists and other groups in society. In order to increase their power, approximated by their income share, capitalists have to strategically sabotage the rest of society. And one of their key weapons in this struggle is unemployment.

The effect of unemployment on distribution is not obvious, at least not at first sight. Rising unemployment, insofar as it lowers the absolute ('real') level of activity, tends to hurt capitalists and employees alike. But the impact on money prices and wages can be highly differential, and this differential can move *either way*. If unemployment causes the ratio of price to unit wage cost to decline, capitalists will fall behind in the redistributive struggle, and this retreat is sure to make them impatient for recovery. But if the opposite turns out to be the case – that is, if unemployment helps *raise* the price/wage cost ratio – capitalists would have good reason to love crisis and indulge in stagnation.

So which of these two scenarios pans out in practice? Do stagnation and crisis increase capitalist power? Does unemployment help capitalists raise their distributive share? Or is it the other way around?

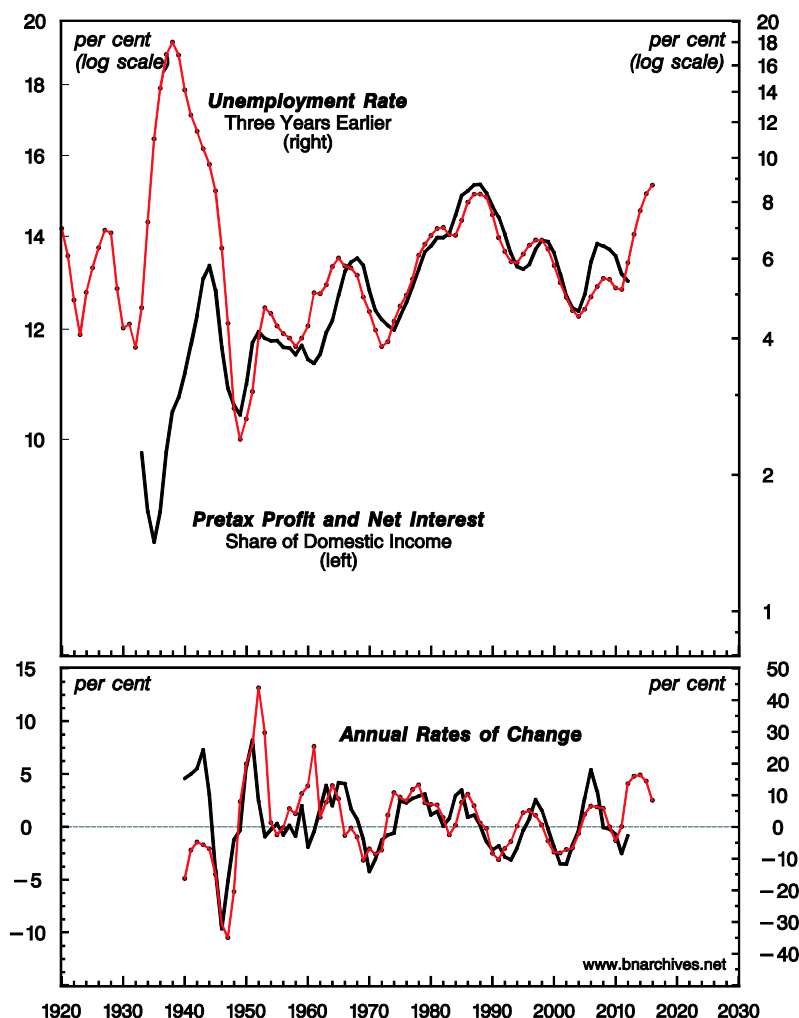
### **Unemployment and the capitalist income share**

Figures 1 and 2 examine this process in the United States, showing the relationship between the share of capital in domestic income and the rate of unemployment since the 1930s. The top panel of Figure 1 displays the levels of the two variables, both smoothed as 5-year moving averages. The solid line, plotted against the left log scale, depicts pre-tax profit and net interest as a percent of domestic income. The dotted line, plotted against the right log scale, exhibits the rate of unemployment as a share of the labour force. Note that the unemployment series is lagged three years, meaning that every observation shows the situation prevailing three years earlier. The bottom panel displays their respective annual rates of change of the two top variables, beginning in 1940.

The same relationship is shown, somewhat differently, in Figure 2. This chart displays the same variables, but instead of plotting them against time, it plots them against each other. The capitalist share of domestic income is shown on the vertical axis, while the rate of unemployment three years earlier is shown on the horizontal axis (for a different examination

of this relationship, including its theoretical and historical nonlinearities, see Nitzan and Bichler 2009: 236-239, particularly Figures 12.1 and 12.2).

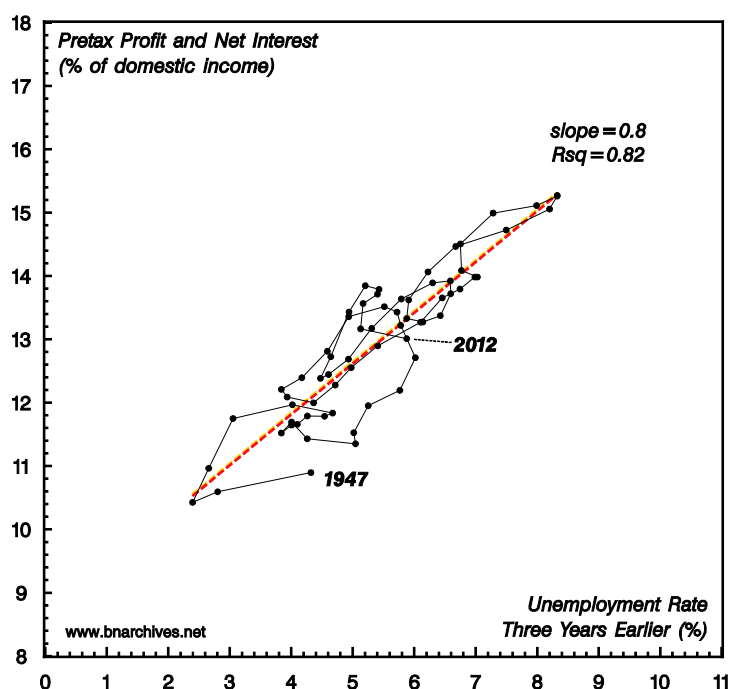
**Figure 1** U.S. Unemployment and the domestic income share of capital 1920-2013



NOTE: Series show annual data smoothed as 5-year moving averages. Profit is pre-tax and includes capital consumption adjustment (CCAdj) and inventory valuation adjustment (IVA). Unemployment is expressed as a share of the labour force. The last data points are 2012 for profit and interest and 2013 for unemployment.

SOURCE: U.S. Bureau of Economic Analysis through Global Insight (series codes: GDY for domestic income; ZBECND for domestic pre-tax profit with CCAdj & IVA; INTNETDBUS for domestic net interest); *Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition* (online) (series code: Unemployed\_AsPercentageOf\_CivilianLaborForce\_Ba475\_Percent for the unemployment rate [till 1947]); U.S. Bureau of Labor Statistics through Global Insight (series code: RUC for the unemployment rate, computed as annual averages of monthly data [1948 onward]).

**Figure 2** U.S. Unemployment and the Domestic Income Share of Capital 1947-2012



NOTE: Series show annual data smoothed as 5-year moving averages. Profit is pre-tax and includes capital consumption adjustment (CCAdj) and inventory valuation adjustment (IVA). Unemployment is expressed as a share of the labour force. The last data points are 2012 for profit and interest and 2013 for unemployment.

SOURCE: U.S. Bureau of Economic Analysis through Global Insight (series codes: GDY for domestic income; ZBECND for domestic pre-tax profit with CCAdj & IVA; INTNETDBUS for domestic net interest); *Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition* (online) (series code: Unemployed\_AsPercentageOf\_CivilianLaborForce\_Ba475\_Percent for the unemployment rate [till 1947]); U.S. Bureau of Labor Statistics through Global Insight (series code: RUC for the unemployment rate, computed as annual averages of monthly data [1948 onward]).

Now, readers conditioned by the prevailing dogma would expect the two variables to be inversely correlated. The economic consensus is that the capitalist income share in the advanced countries is *procyclical* (see for example, Giammarioli *et al.* 2002; Schneider 2011). Expressed in simple words, this belief means that capitalists should see their share of income rise in the boom when unemployment falls and decline in the bust when unemployment rises.

But that is not what has happened in the United States. According to Figures 1 and 2, during the post-war era, the U.S. capitalist income share has moved *countercyclically*, rising in downturns and falling in booms.

The relationship between the two series in the charts is clearly positive and very tight. Regressing the capitalist share of domestic income against the rate of unemployment three years earlier, we find that for every 1 per cent increase in unemployment, there is 0.8 per cent increase in the capitalist share of domestic income three years later (see the straight OLS regression line going through the observations in Figure 2). The R-squared of the regression

indicates that, between 1947 and 2012, changes in the unemployment rate accounted for 82 per cent of the squared variations of capitalist income three years later.<sup>3</sup>

The remarkable thing about this positive correlation is that it holds not only over the short-term business cycle, but also in the long term. During the booming 1940s, when unemployment was very low, capitalists appropriated a relatively small share of domestic income. But as the boom fizzled, growth decelerated and stagnation started to creep in, the share of capital began to trend upward. The peak power of capital, measured by its overall income share, was recorded in the early 1990s, when unemployment was at post-war highs. The neoliberal globalization that followed brought lower unemployment and a smaller capital share, but not for long. In the late 2000s, the trend reversed again, with unemployment soaring and the distributive share of capital rising in tandem.

### **Box 1: Underconsumption**

The empirical patterns shown in Figures 1 and 2 seem consistent with theories of underconsumption, particularly those associated with the Monopoly Capital School. According to these theories, the oligopolistic structure of modern capitalism is marked by a growing 'degree of monopoly'. The increasing degree of monopoly, they argue, mirrors the redistribution of income from labour to capital. Upward redistribution, they continue, breeds underconsumption. And underconsumption, they claim, leads to stagnation and crisis. The observed positive correlation between the U.S. capitalist share of income and the country's unemployment rate, they would conclude, is only to be expected (cf. Kalecki 1933; 1939; 1943; Steindl 1952; Tsuru 1956; Baran and Sweezy 1966; Magdoff and Sweezy 1983; Foster and Szlajfer 1984; for a survey of recent arguments and evidence, see van Treeck and Sturn 2012; Lavoie and Stockhammer 2013)

There is, however, a foundational difference between the under-consumptionist view and the claims made in this research note. In our opinion, the end goal of capitalists – and of capitalist organizations more generally – is the augmentation of differential power. This goal is pursued through strategic sabotage and is achieved when capitalists manage to systematically redistribute income and assets in their favour. The underconsumptionists, by contrast, share with mainstream economists the belief that capitalists are driven to maximize their 'real' capital stock. From this latter perspective, pro-capitalist redistribution is in fact *detrimental* to capitalist interests: the higher the capitalist income share, the stronger the tendency toward underconsumption and stagnation; and the more severe the stagnation, the greater the likelihood of capitalists suffering a 'real' accumulation crisis.

### **Employment growth and the top 1%**

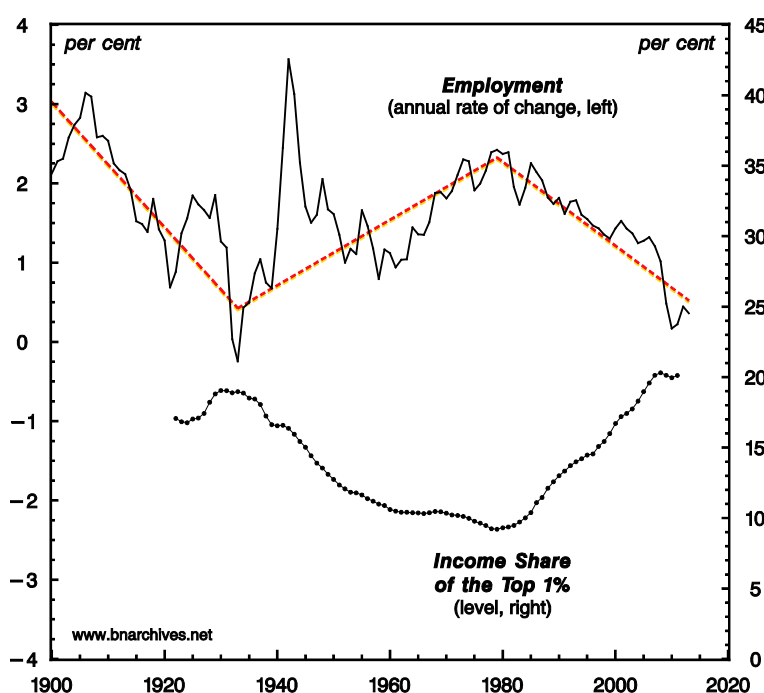
The power of capitalists can also be examined from the viewpoint of the infamous 'Top 1%'. This group comprises the country's highest income earners. It includes a variety of formal occupations, from managers and executives, to lawyers and doctors, to entertainers, sports stars and media operators, among others (Bakija, Cole, and Heim 2012), but most of its income is derived directly or indirectly from capital.

<sup>3</sup> The three-year lag means that the redistributive consequences of unemployment are manifested only gradually. The exact nature of this gradual process requires further research.

The Top 1% features mostly in ‘social’ critiques of capitalism, echoing the conventional belief that accumulation is an ‘economic’ process of production and that the distribution of income is merely a derivative of that process.<sup>4</sup> This belief, though, puts the world on its head. Distribution is not a corollary of accumulation, but its very essence. And as it turns out, in the United States, the distributional gains of the Top 1% have been boosted not by growth, but by stagnation.

Figure 3 shows the century-long relationship between the income share of the Top 1% of the U.S. population and the annual growth rate of U.S. employment (with both series smoothed as 10-year moving averages).

**Figure 3** U.S. Income distribution and employment growth 1900-2013



NOTE: Series show annual data smoothed as 10-year moving averages. The trend dashed lines going through the employment growth series are drawn freehand. The income share of the Top 1% is inclusive of capital gains. The last data points are 2011 for the income share of the Top 1% and 2013 for employment growth.

SOURCE: *Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition* (online) (series code: CivilianLaborForce\_Employed\_Total\_Ba471\_Thousand for employment [till 1947]); U.S. Bureau of Labor Statistics through Global Insight (series code: ENS for employment, computed as annual averages of monthly data [1948 onward]); *The World Top Incomes Database* at <http://topincomes.g-mond.parisschoolofeconomics.eu/> for the income share of the Top 1%.

<sup>4</sup> Following J.B. Clark (1899), neoclassical manuals assert that, under perfect competition, the income of every ‘factor of production’ is equal to its (marginal) productive contribution. In this way, capitalists, workers and the owners of raw materials receive in income what they add to the economy’s output and therefore to the well-being (i.e. utility) of society. The inequality arising from this process may create ‘social problems’ and ‘political instability’, but these unfortunate side effects are usually seen as lying safely outside the objective domain of economics proper.

The overall relationship is clearly negative. When stagnation sets in and employment growth decelerates, the income share of the Top 1% actually *rises* – and vice versa during a long-term boom (reversing the causal link, we get the generalized underconsumptionist view, with rising overall inequality breeding stagnation – see Box 1).

Historically, this negative relationship shows three distinct periods, indicated by the dashed, freely drawn line going through the employment growth series. The first period, from the turn of the century till the 1930s, is the so-called Gilded Age. Income inequality is rising and employment growth is plummeting.

The second period, from the Great Depression till the early 1980s, is marked by the Keynesian welfare-warfare state. Higher taxation and spending make distribution more equal, while employment growth accelerates. Note the massive acceleration of employment growth during the Second World War and its subsequent deceleration bought by post-war demobilization. Obviously these dramatic movements were unrelated to income inequality, but they did not alter the series' overall upward trend.

The third period, from the early 1980s to the present, is marked by neoliberalism. In this period, monetarism assumes the commanding heights, inequality starts to soar and employment growth plummets. The current rate of employment growth hovers around zero while the Top 1% appropriates 20 per cent of all income – similar to the numbers recorded during Great Depression.

### **How capitalists learned to stop worrying and love the crisis**

If we follow the conventional macroeconomic creed, whether mainstream or heterodox, U.S. capitalism is in bad shape. For nearly half a century, the country has watched economic growth and 'real' accumulation decelerate in tandem – so much so that that both measures now are pretty much at a standstill (Bichler and Nitzan 2013: 24, Figure 12). To make a bad situation worse, policy attempts to 'get the economy going' seem to have run out of fiscal and monetary ammunition (Bichler and Nitzan 2013: 2-13). Finally, and perhaps most ominously, many policymakers now openly admit to be 'flying blind when steering their economies' (Giles 2013).

And yet U.S. capitalists seem blasé about the crisis. Instead of being terrified by zero growth and a stationary capital stock, they are obsessed with 'excessive' deficits, 'unsustainable debt' and the 'inflationary consequences' of the Fed's so-called quantitative easing. Few capitalists if any call on their government to lower unemployment and create more jobs, let alone to rethink the entire model of economic organization.

The evidence in this research note serves to explain this nonchalant attitude: Simply put, *U.S. capitalists are not worried about the crisis; they love it.*

Redistribution, by definition, is a zero-sum game: the relative gains of one group are the relative losses of others. However, in capitalism, the end goals of those struggling to redistribute income and assets can differ greatly. Workers, the self-employed and those who are out of work seek to increase their share in order to augment their *well being*. Capitalists, by contrast, fight for *power*. Contrary to other groups in society, capitalists are indifferent to 'real' magnitudes. Driven by power, they gauge their success not in absolute units of utility, but in differential pecuniary terms, relative to others. Moreover – and crucially – their

differential performance-read-power depends on the extent to which they can strategically sabotage the very groups they seek to outperform.

In this way, rising unemployment – which hammers the well-being of workers, unincorporated businesses and the unemployed – serves to boost the overall income share of capitalists. And as employment growth decelerates, the income share of the Top 1% – which includes the capitalists as well as their protective power belt – soars. Under these circumstances, what reason do capitalists have to ‘get the economy going’? Why worry about rising unemployment and zero job growth when these very processes serve to boost their income-share-read-power?

The process, of course, is not open-ended. There is a certain limit, or asymptote, beyond which further increases in capitalist power are bound to create a backlash that might destabilize the entire system (Bichler and Nitzan 2010; Kliman, Bichler, and Nitzan 2011; Bichler and Nitzan 2012). Capitalists, though, are largely blind to this asymptote. Their power drive conditions and compels them to sustain and increase their sabotage in their quest for an ever-rising distributive share. Like other ruling classes in history, they are likely to realize they have reached the asymptote only when it is already too late.

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For our full paper on the subject, see Shimshon Bichler and Jonathan Nitzan, ‘Can Capitalist Afford Recovery? Economic Policy When Capital is Power’, *Working Papers on Capital as Power*, No. 2013/01, October 2013, pp. 1-36. (<http://bnarchives.yorku.ca/377/>)

## References

Bakija, Jon, Adam Cole, and Bradley T. Heim. 2012. Jobs and Income Growth of Top Earners and the Causes of Changing Income Inequality: Evidence from U.S. Tax Return Data. Working Paper.

Baran, Paul. A., and Paul M. Sweezy. 1966. *Monopoly Capital. An Essay on the American Economic and Social Order*. New York: Modern Reader Paperbacks.

Bichler, Shimshon, and Jonathan Nitzan. 2010. Systemic Fear, Modern Finance and the Future of Capitalism. Monograph, Jerusalem and Montreal (July), pp. 1-42.

Bichler, Shimshon, and Jonathan Nitzan. 2012. The Asymptotes of Power. *Real-World Economics Review* (60, June): 18-53.

Bichler, Shimshon, and Jonathan Nitzan. 2013. Can Capitalists Afford Recovery? Economic Policy When Capital is Power. *Working Papers on Capital as Power* (2013/01, October): 1-36.

Clark, John Bates. 1899. [1965]. *The Distribution of Wealth*. New York: Augustus M. Kelley.

Foster, John Bellamy, and Henryk Szlajfer, eds. 1984. *The Faltering Economy. The Problem of Accumulation Under Monopoly Capitalism*. New York: Monthly Review Press.

Giammarioli, Nicola, Julian Messina, Thomas Steinberger, and Chiara Strozzi. 2002. European Labor Share Dynamics: An Institutional Perspective. EUI Working Paper ECO No. 2002/13, Department of Economics, European University Institute, Badia Fiesolana, San Domenico (FI).

Giles, Chris. 2013. Central Bankers Say They Are Flying Blind. *Financial Times*, April 17.

Kalecki, Michal. 1933. [1971]. The Determinants of Profits. In *Selected Essays on the Dynamics of the Capitalist Economy*, edited by M. Kalecki. Cambridge: Cambridge University Press, pp. 78-92.

Kalecki, Michal. 1939. [1971]. Determination of National Income and Consumption. In *Selected Essays on the Dynamics of the Capitalist Economy*, edited by M. Kalecki. Cambridge: Cambridge University Press, pp. 93-104.

Kalecki, Michal. 1943. [1971]. Costs and Prices. In *Selected Essays on the Dynamics of the Capitalist Economy, 1933-1970*. Cambridge: Cambridge University Press, pp. 43-61.

Kliman, Andrew, Shimshon Bichler, and Jonathan Nitzan. 2011. Systemic Crisis, Systemic Fear: An Exchange. Special Issue on 'Crisis'. *Journal of Critical Globalization Studies* (4, April): 61-118.

Lavoie, Marc, and Engelbert Stockhammer. 2013. Wage-Led Growth: Concepts, Theories and Policies. *ILO Conditions of Work and Employment Series* (41): 1-32.

Magdoff, Harry, and Paul M. Sweezy. 1983. [1987]. *Stagnation and the Financial Explosion*. New York: Monthly Review Press.

Marx, Karl. 1867. [1906]. *Capital. A Critique of Political Economy. Vol. 1: The Process of Capitalist Production*. Translated From the Third German Edition, By Samuel Moore and Edward Aveling and Edited by Frederick Engels. Revised and Amplified According to the Fourth German Edition by Enrest Untermann. Chicago: Charles H. Kerr & Company.

Nitzan, Jonathan, and Shimshon Bichler. 2009. *Capital as Power. A Study of Order and Creorder*. RIPE Series in Global Political Economy. New York and London: Routledge.

OECD. 2001. *Measuring Capital. Measurement of Capital Stocks, Consumption of Fixed Capital and Capital Services*. OECD Manual. Paris: OECD Publication Services.

Schneider, Dorothee. 2011. The Labor Share: A Review of Theory and Evidence. Discussion Paper 2011-069. *SFB 649 "Economic Risk"*: 1-38.

Steindl, Josef. 1952. [1976]. *Maturity and Stagnation in American Capitalism*. New York: Monthly Review Press.

Tsuru, Shigeto. 1956. Has Capitalism Changed? In *Has Capitalism Changed? An International Symposium on the Nature of Contemporary Capitalism*, edited by S. Tsuru. Tokyo: Iwanami Shoten, pp. 1-66.

van Treeck, Till, and Simon Storn. 2012. Income Inequality as a Cause of the Great Recession? A Survey of Current Debates. *ILO Conditions of Work and Employment Series* (39): 1-93.

**Author contacts:**

Shimshon Bichler: [tookie@barak.net.il](mailto:tookie@barak.net.il)

Jonathan Nitzan: [nitzan@yorku.ca](mailto:nitzan@yorku.ca)

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**SUGGESTED CITATION:**

Shimshon Bichler and Jonathan Nitzan, "How capitalists learned to stop worrying and love the crisis" *real-world economics review*, issue no. 66, 13 January 2014, pp. 65-73,  
<http://www.paecon.net/PAEReview/issue66/BichlerNitzan66.pdf>

You may post and read comments on this paper at <http://rwer.wordpress.com/comments-on-rwer-issue-no-66/>

## Two approaches to global competition: a historical review

M. Shahid Alam [Northeastern University, Boston, USA]

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### Abstract

The multiple economic systems advanced since the 15<sup>th</sup> century may be aggregated into two categories: dirigiste and laissez fairist. Dirigisme takes a complex view of commodities, ranking them on a scale from low-end to high-end commodities based on their expected contributions to growth and rent. In this complex world, free global competition widens the divide between rich and poor countries. Poor countries can overcome this polarization only if they are free to employ industrial policies to promote their entry into high-end commodities. Rich countries prefer free trade and also use their power to impose free trade on the poor countries. To justify free trade, they have developed laissez fairist theories (such as neoclassical economics) that create the basis for free trade by stripping commodities (as well as markets and economic behavior) of much of their complexity.

*"Some tender monie to me... Some offer me Commodities to buy."*  
Shakespeare<sup>1</sup>

*"From the beginning of the reign of Elizabeth..., the English legislature has been peculiarly attentive to the interests of commerce and manufactures and in reality there is no country in Europe, Holland itself not excepted, of which the law is, upon the whole, more favorable to this sort of industry. Commerce and manufactures have accordingly been continually advancing during all this period."*  
Adam Smith<sup>2</sup>

If you wish to make sense of the many systems of economic thought, begin by defining their relationship to industrial policies, that is, the official promotion of specific sectors, industries and firms in an economy.

On this view, nearly all the major systems of economic thought advanced since the fifteenth century align themselves into one of two broad categories: dirigiste and laissez fairist. The mercantilists, American protectionists of the nineteenth century, the German historical school, the old institutionalists, post-War development economists, and the new development economists belong in the first category; the physiocrats, classical economists, neoclassical economists, and the Austrians belong in the second category.

The laissez fairists are not opposed to growth policies per se. Eschewing industrial policies, they seek to stimulate growth through neutral policies – such as institutional reforms and education – that they claim do not affect relative prices. It is doubtful, however, if such neutrality is attainable.

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<sup>1</sup> [Comedy of Errors](#), IV. iii. 6.

<sup>2</sup> Adam Smith, *Wealth of nations* (The Modern Library, 1776/1965):392.

## Case for interventionism

The dirigiste schools of economics built their case for industrial policy primarily on one real-world property of commodities: their complexity.<sup>3</sup>

Consider the complexity of commodities.<sup>4</sup> In the real world, each commodity possesses multiple attributes in production, distribution and consumption. Moreover, these attributes differ greatly across different classes of commodities, such as manufactures, commerce, banking, shipping, and agriculture. At a particular stage of economic history, commodities in these classes may differ – to mention only the most important – in economies of scale, the ratios in which they combine different factors of production, the technology spillovers they create, their ability to earn rent, the rate at which they generate innovations, backward and forward linkages, the income distribution they support, their market structure, the responsiveness of demand for their products to changes in income and price, etc.<sup>5</sup> In addition to the variations in the attributes of commodities across these broad classes – such as agriculture, manufactures and services – it is also necessary to examine these variations at the level of individual commodities.

Variations in the attributes of commodities have important implications. It means that *some* commodities – depending on the particular stage of economic history – are likely to make greater contributions to growth and rent-generation than others. Thus, investments in commodities characterized by increasing returns to scale (IRS) are likely to generate cumulative growth. Expansion in these commodities lowers their unit cost; this spurs a second round of investment, which again lowers unit cost, leading to another round of investment; ad infinitum. The expansionary effects from investment in one set of commodities are likely to spread to other commodities that supply inputs to the former commodities or use their outputs as inputs. Commodities produced under conditions of constant or decreasing returns to scale are unlikely to generate these cumulative expansionary effects. Thus, once we recognize the complexity of commodities, it may be possible to rank classes of commodities as well as individual commodities within any class according to two criteria: the contributions they may reasonably be expected to make to economic growth, summarized in their growth-coefficients, GCs, and their ability to earn rent or their rent-coefficients, RCs.<sup>6</sup>

In a world of complex commodities, the invisible hand is unlikely to allocate a lagging country's resources to their best long-term uses. Once historical accidents have given some countries a competitive advantage, however small, in high-end commodities (those with high GCs and RCs), free global competition will deepen this advantage. As a result, countries that have a lock on high-end commodities will continue to get rich; and poor countries locked into the production of low-end commodities will keep falling behind the rich countries. Left alone, global competition is a disequalizing force.

Could a lagging country still work its way up the commodity chain – from low- to high-end commodities – by taking advantage of its comparative advantage based on abundance of

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<sup>3</sup> Industrial policy could be built on other independent or complementary factors: such as informational asymmetries or myopia in investment decisions.

<sup>4</sup> A commodity is any good or service that is produced for sale on the market.

<sup>5</sup> Several of these properties are linked to each other: for instance, economies of scale and innovations are likely to support monopolies or oligopolistic markets. In turn, the ability to earn rent depends on market power.

<sup>6</sup> If an investment of \$1 in commodity X produces \$5 of additional investments in X and other commodities, its GC is 5. A commodity's RC is given by the fraction of its value added that consists of rent, that is, profits above all the costs of production.

low-end skills? Conceivably, it may slowly increase its capital endowment, accumulate skills and technology, improve its governance, and build financial markets until it can lower its costs enough to enter some lines of high-end commodities. It is unlikely, however, that this slow ascent will work this way. As the ascent of the lagging country is likely to be slow, the unit costs in the targeted high-end commodities may also decline – due to expansion in its output – and the lagging country's goal of entry into this commodity will continue to recede. Over time, as their markets become saturated and their technologies become stable, some of these high-end commodities may experience a decline in their GCs and RCs. This changes the goal post for the lagging country; by the time they enter a high-end commodity it may have lost most of its advantages.<sup>7</sup> As a result, the only chance that lagging countries may have for moving up the commodity chain is to force the issue. They must employ a variety of industrial policies to expedite their ascent from low- to high-end commodities.

### **The case for *laissez faire***

If the dirigisme of the mercantilists and their successors flowed from the complexity of commodities, the laissez fairists would have to make their case by stripping commodities of their offending real-world attributes.

Adam Smith offered three arguments in favor of free trade – the gains from specialization based on absolute advantage, vent-for-surplus and the market-widening effects of trade. It was the third argument that occupied pride of place in his *Wealth of Nations*. The market-widening effects of trade depended on the complexity of the commodities traded: trade widened markets because (some of) the commodities entering trade were produced under conditions of increasing returns to scale.

Now, this argument could cut both ways. Adam Smith had used it to support free trade; it could also be used *against* free trade. If the gains from trade are cumulative in the high-end commodities, any country that loses the initiative in these commodities could forever be confined to the production of low-end commodities under conditions of free trade. Caught in this trap, industrial policy presents to the lagging country its only chance of acquiring competitiveness in one or more high-end commodities.<sup>8</sup>

Free trade was in trouble: it was not the best policy for lagging countries in a dynamic world of complex commodities.

David Ricardo came to the rescue in 1817 by changing the question. Adam Smith had sought to demonstrate the advantages of free trade in a dynamic context: and he fumbled. Ricardo would succeed because he chose a more modest goal: to demonstrate the superiority of free trade in a static world. He only looked at the one-time gains produced by the *opening* of trade, as each country re-allocated its labor to take advantage of its comparative advantage. To force his analysis into a static framework, Ricardo assumed that the production of wine and cloth took place under conditions of constant returns to scale (CRS), with labor as the only

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<sup>7</sup> This discussion has made no mention of the impediments to the slow ascent that may be created by interference in the affairs of lagging countries by imperialist powers. A slow and long ascent gives the imperialist powers more time to derail a lagging country's efforts to climb up the commodity chain.

<sup>8</sup> There is no assurance that a lagging country, using industrial policies, would succeed in acquiring competitiveness in high-end commodities. Policy makers could pick the wrong commodities for promotion or offer support without an expiry date, and hence encourage the entry of inefficient enterprises. These risks notwithstanding, only countries that tried industrial policies have succeeded; whereas failure was uniform in the colonies that were forced into laissez faire regimes.

factor of production. This was his master stroke. With CRS in production, Ricardo stripped commodities of all differentia in production except one: cloth and wine had different (albeit fixed) labor coefficients. In this framework, a country's gains from trade did not depend on what it exported. Industrial policy was out.

In the 1950s, Paul Samuelson (or his formalization of the theories of Eli Heckscher and Bertil Ohlin) recast this stripping of commodities in a neoclassical framework. In this model too, goods differ from each other only in their capital intensities, thus eliminating any basis for industrial policy. In addition, the competitive paradigm of neoclassical economics strips markets and individuals of any properties that may cause market failures. Markets always produce efficient outcomes: no trades exist that could make any one person better off without making someone else worse off.

### **Politics of the two approaches**

The asymmetric dynamics of free global competition produces its own peculiar politics and economics in advanced and lagging countries.

This dynamics places the advanced and lagging countries in opposite camps: the former favor free markets, the latter favor industrial policies. More often than not, the advanced countries – collectively and, in several cases, individually – also possess the power to keep the world open. Imperialism, therefore, is the inevitable corollary of the asymmetric dynamics of global competition. History bears this out abundantly; the advanced countries have used their power to keep as much of the world as possible open to their own capital. Imperialism has its pitfalls though: the advanced countries will compete over global markets and if necessary wage wars over them. Financial crises in the advanced countries may also push them into depressions. Wars and depressions offer lucky breaks to lagging countries: some of them take advantage of their ensuing independence to try to catch up with the advanced countries. Their game-changing weapons are industrial policies.

The advanced countries' support for free global competition, together with their imperialist interests, create two ideological demands in the advanced countries. First, they must debunk the interventionist economics that made them rich and replace it with a laissez faire economics that camouflages the asymmetries of free markets. Can they find thinkers in advanced countries willing to deliver this lie? Don't the best thinkers strive to serve truth? For the most part, the leading Western thinkers have been quite happy to accommodate their country's political demands. Not surprisingly, British economists took the lead in developing the laissez faire doctrines of classical economics; since the late eighteenth century Britain had been Europe's leading economy. All the new variants of laissez faire economics – the marginalists, neoclassical economics, the old and new Austrians – were developed in advanced countries: Britain, Austria, Sweden, the United States, etc.

The advanced countries also needed a narrative to justify the violence they employed to open the lagging countries to their manufactures and capital. Again, several Western thinkers rose to the occasion: they produced a variety of racist discourses that posited a hierarchy of races and cultures. Once established, Western nations used these discourses to justify their depredations against the population of lagging countries. Violence against 'inferior' races was necessary; their 'civilizing mission' demanded that they be improved against their will. They could also be sacrificed if they stood in the path of progress.

The lagging countries had an opposite interest in promoting the entry of their own capital into high-end commodities. However, they could pursue this goal only infrequently for two reasons. In a few cases – such as the Ottoman empire before the nineteenth century – the interests of their ruling classes were best served by free trade. More frequently, the economic ambitions of the lagging countries were thwarted by the imperialism of one or more advanced countries.

In the colonial era, nearly all the countries in Africa, Asia and the Caribbean were thrown open to colonial capital. Together with discriminatory colonial policies, this drove indigenous capital and skills out of manufactures, international trade, large-scale domestic trade, finance, shipping and various branches of government. When the colonial empires were dismantled during the first two decades after WWII, several decolonized countries enjoyed a period of real independence. But this did not last long. By the late 1980s, most of them had lost control over their policies to various multilateral agencies dominated by the advanced countries. In Latin America, these losses have been reversed over the past decade. Over the same period, growing Chinese interest in their resources has given several African countries somewhat greater autonomy in the conduct of their economic policies.

Since industrial policies served the interests of lagging countries, the leading proponents of dirigiste economics were based in the lagging countries or – more recently, if they were based in the advanced countries – they brought a moral commitment to the economic development of the lagging countries. Between the fifteenth and eighteenth centuries, most of Europe's mercantilist literature came out of Britain, Spain, France, and Southern Italy, lagging countries that were trying to catch up with Holland and the city states of northern Italy. During the nineteenth century, the leading protectionist writers were to be found in Germany and United States, two countries that lagged behind Britain but had ambitions of catching up to Britain. In the twentieth century, protectionist thought shifted first to countries in eastern Europe and, starting in the 1940s, to Latin America, India, and centers in Britain that hosted several economists from eastern Europe.

As lagging economies gain competitiveness in an increasing array of high-end commodities, their leading economists begin to embrace laissez faire positions in international trade. British economists began making this switch in the late eighteenth century; most West European economists began advocating free trade at various points in the mid- to late nineteenth century; and American economists displaced their British counterparts as the leading advocates of free trade only in the post-War era when the United States replaced Britain as the global hegemon. Over the last two decades, as India and China have been gaining competitive advantage in several high-end commodities, many of their leading economists too have been converted to the doctrine of free markets. Other factors too operate to convert economists from the lagging countries to free markets and free trade. It is the ambition of many of the brightest young men and women studying economics in lagging countries to become professors at the top universities in the USA. Success in this ambition demands that they internalize the hegemonic discourse in economics about free markets.

While laissez faire economists are emphatic in proclaiming that governments cannot pick winners, the historical evidence demonstrates the opposite. No lagging country (barring Hong Kong, the commercial hub of the British empire in East and Southeast Asia) has succeeded in indigenizing the production of high-end commodities – or moving in that direction – without

the help of dirigiste policies.<sup>9</sup> Britain's economic leadership came after nearly four centuries of adherence to mercantilist policies. Adam Smith acknowledges this but this inconvenient fact did not diminish his enthusiasm for free markets.

### Concluding remarks

From the standpoint of their policy implications, all the schools of economics collapse into two categories: dirigiste and laissez fairist.

The first views commodities as complex objects that can be ranked in terms of their contribution to growth and rents; accordingly, dirigistes seeks to promote high-end commodities characterized by high GCs and RCs. In order to deny that commodities can be ranked in this manner, the laissez fairists strip commodities of their complexity until one commodity differs from another only in its capital intensity. In this simplistic world, the commodity composition of a country's economy under free trade is fully determined by its endowments of capital and labor; nothing else matters. Laissez faire economics – built on heroic assumptions – primarily serves an ideological function. It camouflages the unequal distribution of gains from free global competition; it also frees corporations from interference by government except when this happens at their behest.

Since dirigiste economics is founded on real-world properties of commodities and markets, its arguments are generally transparent and it finds support for its theses in historical evidence. On the other hand, neoclassical economics – the dominant branch of laissez faire economics since the late nineteenth century – has employed mathematics to hide its unreal assumptions and its disconnect from the real world. In the nineteenth century, a growing band of physicians and psychologists tried obsessively to establish correlations between quantitative measures of several human traits, on the one hand, and measures of brain size, shape of the skull and different aspects of facial physiognomy; they hoped that this quantification would give scientific legitimacy to their racist theories. In a similar endeavor, since the late nineteenth century, neoclassical economists began to mathematize their discipline in order to gain the prestige of physics. This goal continues to elude neoclassical economics despite its complete mathematization since the 1950s.

**Author contact:** [m.alam@neu.edu](mailto:m.alam@neu.edu)

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#### SUGGESTED CITATION:

M. Shahid Alam, "Two approaches to global competition: a historical review" *real-world economics review*, issue no. 66, 13 January 2014, pp. 74-79, <http://www.paecon.net/PAEReview/issue66/Alam66.pdf>

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<sup>9</sup> For evidence on this connection, see M. Shahid Alam, *Poverty from the wealth of nations: Integration and polarization in the global economy since 1760* (St. Martin's Press, 2000); M. Shahid Alam, "Colonialism and Industrialization: A Critique of Lewis," *Review of Radical Political Economics*, Spring 2004, pp. 217-40; Erik Reinert, *How rich countries got rich: Why poor countries stay poor* (Constable and Robinson, 2007); Ha-Joon Chang, *Kicking away the ladder: Development strategy in historical perspective* (Anthem Press, 2003); Ha-Joon Chang, "The double life of Daniel Defoe," in: *Bad Samaritans* (Bloomsbury Press, 2008).

# Dimensions of real-world competition – a critical realist perspective

Hubert Buch-Hansen<sup>1</sup> [Copenhagen Business School, Denmark]

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## Abstract

Mainstream economics consistently ignores the various socio-economic and environmental downsides of capitalist competition and instead lends legitimacy to the prevailing neoliberal discourse according to which merciless competition is unambiguously positive. In opposition to this one-dimensional view, the present paper delineates a heterodox perspective on competition that is able to recognise its many heterogeneous effects. The argument draws on selected aspects of the ontology of critical realism, adding substance to them with empirical findings and theoretical insights from different academic disciplines, with a particular focus on historical materialist political economy. Competition is conceptualised as a social relation, and the paper outlines how competition interacts with numerous other mechanisms to produce a variety of outcomes. Specifically, Roy Bhaskar's concept of the social cube is utilised to propose a four-dimensional perspective that views competition in relation to (other) social relations, social practices, the subjectivity of agents and the natural environment.

**Keywords** competition, critical realism, social structures, the social cube

## Introduction<sup>2</sup>

“Competition is a key driver of growth and one of the pillars of a vibrant economy. A strong competition regime ensures the most efficient and innovative businesses can thrive, allowing the best to grow and enter new markets, and gives confidence to businesses wanting to set up in the UK. It drives investment in new and better products and pushes prices down and quality up. This is good for growth and good for consumers” (Cable in BIS, 2012: 4).

This statement by Secretary of State for Business, Innovation and Skills, Vince Cable, opens a 2012 UK government report entitled *Growth, Competition and the Competition Regime*. In its one-sided celebration of competition, and of those regulatory frameworks best able to protect and enhance competition, the statement is symptomatic of the view that has become hegemonic in recent decades, within the UK as well as all other countries of the developed world. Countless are the publications from governments and international organisations that list the blessings of competition while condemning its alternatives. For instance, the countries of the Organisation for Economic Co-operation and Development agree that “hard core cartels” are “the most egregious violations of competition law and that they injure consumers in many countries by raising prices and restricting supply” (OECD, 1998). In line with this view, anti-cartel rules alongside other forms of regulation are enforced by authorities throughout the developed world so as to preserve competition.

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<sup>1</sup> Associate Professor, Department of Business and Politics, Copenhagen Business School.

<sup>2</sup> I wish to thank Angela Wigger for commenting on an earlier draft of this paper and to acknowledge that my understanding of competition owes much to the insightfulness of her research and to our many conversations about this and related issues over the years. Thanks also to the anonymous reviewers for some helpful inputs. Needless to say, I am solely responsible for any errors of judgement or fact that may be found in the following pages.

The prevailing view on competition is part of the general neoliberal discourse that became dominant after the 1970s. Like other aspects of this discourse, the view is legitimised by mainstream economics, which is premised on the belief that competition motivates employees, improves the functioning of markets and prompts companies to be innovative and produce quality at the lowest possible costs. Indeed, competition is heralded as resulting in economic growth and the maximisation of welfare in society (Eekhoff & Moch, 2004). The neoclassical notion of “perfect competition” has been deservedly and pervasively criticised by scholars outside the mainstream of economics. While the current paper agrees with much of this critique, it aims to shift the focus from the critique of a theoretical concept to more nuanced and critical considerations of the real phenomenon of competition. More specifically, it aims to contribute to the establishment of a multidimensional perspective on real-world competition – one that, *inter alia*, recognises the ambiguous socio-economic effects of competition and focuses on the environmental dimension of competition.

To this end, this paper incorporates selected aspects of the ontology of the critical realist philosophy of science (e.g., Bhaskar, 1975, 1979). While a purely critical realist perspective on competition is not possible, critical realism can as a philosophy of science play “the role of underlabourer for a more fruitful approach to scientific explanation” (Lawson, 1999: 3; see also Bhaskar, 1989: 191). That is, critical realism provides an ontology (an abstract theory of reality), but it cannot account for actual phenomena in the social world. As such, it cannot tell us, for instance, that capitalism is the currently prevailing economic system or that competition is a crucial part of this system. This paper focuses on selected aspects of the critical realist ontology and adds substance to them by drawing from empirical findings and theoretical insights from scholarship in different academic disciplines. Special attention is given to historical materialist political economy, as this is where the most comprehensive perspective on real-world capitalist competition has been developed.<sup>3</sup> Importantly, it is not the intention of this paper to present a full-blown theory of competition or, for that matter, to provide an exhaustive account of the effects of competition. The goal is, instead, to use key features of critical realism as the “ontological skeleton” for a multidimensional heterodox perspective on real-world competition. In drawing from critical realism this paper aims to make a contribution to the critical realist project in economics (see e.g., Lawson, 1997; Fleetwood, 1999). This project entails using critical realist insights not only to help provide immanent critiques of the existing situation in economics but also to construct alternative perspectives (Lawson, 1999: 3). Thus far, however, the richness of the critical realist ontology has not been fully utilized to articulate a multidimensional view on capitalist competition – which is also unfortunate in the light of the calls for a radical reformation of economics education (Reardon, 2012).

In addition to this introduction and a conclusion, the paper is divided into three main sections. The first section briefly outlines the hegemonic discourse on competition and positions the discourse within a broader socio-economic context. The second section provides a general critical realist perspective on competition, conceptualising the latter as a social relation. In this section, it is highlighted that competition interacts with numerous other mechanisms to produce a variety of outcomes in the social world. The last main section utilises Bhaskar’s concept of the social cube to propose a four-dimensional perspective on competition, namely,

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<sup>3</sup> Several scholars have linked critical realism and historical materialism, and it is widely accepted that the two complement each other in many respects. See, e.g., Creaven (2000), Fleetwood (1999) and Bhaskar (1989).

one that sees competition in relation to (other) social structures, social practices, the subjectivity of agents and the natural environment.

### **Competition in mainstream economics and beyond**

“The global capitalist system is supported by an ideology rooted in the theory of perfect competition. According to this theory, markets tend toward equilibrium and the equilibrium position represents the most efficient allocation of resources. Any constraints on free competition interfere with the efficiency of the market mechanism; therefore they should be resisted” (Soros 1998: 126-7).

Neoclassical economists use the notion of “perfect competition” to refer to their preferred market structure. Perfect competition involves the existence of many small and independent companies with no market power (i.e., they are price takers, not price makers); their products are homogenous, and they are unable to guess the moves of their competitors. As a result of these various features, companies produce a level of output for which the price equals the marginal costs. Profits are, in other words, eliminated. Stanford (2008: 133) rightly notes that the question of “[w]hy any capitalist would bother investing in a private company in this environment is one of the great unanswered questions of neoclassical economics”. Perfect competition is often contrasted with monopolistic competition (e.g., Stigler, 1957; Krugman, 1979), and there are various reasons why neoclassical economists prefer the former over the latter. First, companies in competitive markets produce a higher level of output than monopolies and subsequently sell this output at a lower price. Second, by producing at a level where price equals marginal costs, companies in competitive markets maximise social welfare. Finally, “perfect competition is the only market structure in which price and quantity are set by the intersection of the supply curve and the demand curve” (Keen, 2011: 87). That is, when rational agents act under the condition of perfect competition, a Pareto optimal outcome, in which no actor can profit without making another actor’s situation worsen, can be expected. Individual action leads to optimal collective outcomes and, thus, to perfect efficiency.

There is general agreement that no, or very few, markets in the real world are characterised by perfect competition and that, in fact, most real markets are characterised by the very opposite features. However, for many mainstream economists, perfect competition serves as the ideal for how markets would function in the best of circumstances. Perfect competition is, in the words of two economists, “useful as a benchmark against which to measure the competitiveness of actual markets” (Peeperkorn & Verouden, 2007: 18). The less a market resembles the perfect competition ideal, the farther away it is from being perfectly efficient. A major problem with this reasoning is that even if one were to accept the idea that perfect competition entails perfect efficiency, it does not follow that an *almost* perfectly competitive market is also *almost* perfectly efficient. Lipsey and Lancaster’s (1956: 11) “Theorem of the Second Best” shows that “given that one of the Paretian optimum conditions cannot be fulfilled, then an optimum situation can be achieved only by departing from all the other Paretian conditions”. In other words, the more conditions of perfect competition are met without meeting them all, the further away from perfect efficiency the economy moves (see also Heath, 2010: 65-80). Notwithstanding the theorem (which neoclassical economists have never been able to refute) and the widespread recognition that perfect competition is an unachievable ideal, the cost of markets not being perfectly competitive remains a concern in

mainstream economics. For instance, Hunt and Duhan (2002: 97) cite a number of studies in the neoclassical tradition that have come to the conclusion that “the social costs of society’s permissive attitude toward monopolistic competition approach 13% of GDP”.

Although they do not operate under the premise that perfect competition characterises real-world economic systems, all traditions of mainstream economics are united in their belief that competition inherently enhances welfare. The more competition, the better. Hence, those versions of mainstream economics that champion the notion of perfect competition and those versions that do not both lend legitimacy to a neoliberal political/regulatory discourse according to which competition is a public good that needs to be intensified and protected. Hence, it is not surprising that competition authorities, such as the European Commission, often justify their endeavours to protect or bring about what they call “effective” or “workable” competition with reference to economics. Indeed, the Commission has, in recent years, been very eager to communicate that its regulation of competition is grounded in “state of the art” microeconomic theory (Budzinski, 2008; Wigger, 2007).

However, the belief in competition has effects that go far beyond economics and competition regulation. Over the past few decades, the aforementioned neoliberal discourse has underpinned the gradual emergence of what Cerny (1997) has labelled the “competition state”. Whereas the post-war Keynesian welfare state, in many respects, aimed to make individuals less dependent on the market for the provision of their welfare, the competition state promotes marketisation; it deliberately exposes all economic activities located within the national territory to competition to enhance competitiveness and produce economic growth. Whereas the state in the previous era sought to shield internationally uncompetitive domestic companies from the full blast of international competition while also providing social protection for its citizens, the competition state does the opposite.

“The underlying aim of state intervention in the twenty-first century is [...] not to replace the market, but to make it work more efficiently. Government promotion of competition [...] is the most fundamental and indispensable means to this objective” (Cerny, 2010: 159).

In short, in the competition state, faith in competition has become institutionalised and, in this way, has very real and far-reaching material effects. Apparently, it is not considered a problem that the “general belief in the efficacy of competition exists despite the fact that it is not supported either by any strong theoretical foundation or by a large corpus of hard empirical evidence in its favour” (Nickell, 1996).

Heterodox economists of various persuasions have rightly criticised the concept of perfect competition. However, it is crucial that it is the effects of actual real-world competition, instead of an obscure theoretical concept and its flaws, that ultimately end up at the centre of attention. Schumpeter (1947), Keynes (1973 [1936]), (post-)Keynesians (e.g., Arestis, 1996; Kalecki, 1971), Marx (1965 [1867]), Marxists (e.g., Aglietta, 1979; Baran & Sweezy, 1966) and many others have, indeed, noted the imperfect nature of competition in actual markets. Nonetheless, acknowledging that real-world capitalist competition, far from being perfect, is dominated by large oligopolies only takes us part of the way. Much heterodox scholarship fails to genuinely break from the view that competition is something that mainly concerns companies, prices and product quality. However, a heterodox perspective cannot afford the luxury of ignoring that competition has heterogeneous effects and that these effects reach beyond markets and, indeed, the social world. To illustrate: although competition is (in some

circumstances) beneficial to consumers and good for the economic system, lower prices and ensuing increases in consumption can, at the same time, have negative environmental consequences. This example illustrates why a perspective on competition that is far more comprehensive, one might say holistic, than the prevailing one is needed. The next sections outline how the ontology of critical realism can provide the skeleton for such a perspective.

### **Competition – a critical realist view**

The critical realist position in the philosophy of science was initially outlined by Roy Bhaskar in the 1970s (see Bhaskar, 1975, 1979) and later developed by scholars such as Margaret Archer, Andrew Sayer and, in the field of economics, Tony Lawson and Steve Fleetwood. Both in the present journal and elsewhere the implications of critical realism for the discipline of economics have been debated, and calls have been made for a reorientation of not only economics but also of different aspects of the critical realist position (Fullbrook, 2009; T. Lawson, 2003; Nielsen, 2002; Syll, 2010). This paper is not the place to recapitulate these advances and debates; the following instead relates competition to selected aspects of the critical realist ontology as it was initially presented.

At the most general level, critical realists make a distinction between the intransitive dimension, consisting of the reality that exists independently of our knowledge of it, and the transitive dimension, consisting of our knowledge at a given time (Bhaskar, 1975: 21-24; 1979: 11-17). Competition is thus an intransitive phenomenon, whereas our theories, beliefs and knowledge of or about it are transitive objects. As is the case with other intransitive phenomena, the nature and effects of competition are ambiguous and perhaps different from what they seem to be for most people. Appearances can be deceiving, as Marx noted. For critical realists, it is therefore a central task of the social sciences to get behind the manifest discourses and phenomena on the surface of reality and expose the structures and interests that sustain those discourses and phenomena.

Bhaskar famously distinguishes among three levels of reality: an empirical level consisting of our experiences; an actual level consisting of events and phenomena; and a real (or deep) level consisting of a multitude of mechanisms and structures that sustain and generate actual events and phenomena regardless of whether these are empirically observed/observable or not (e.g., Bhaskar, 1975: 56). The three levels are, in this sense, out of sync with one another: real structures do not always act as mechanisms that cause actual events, and if they do, these events are not necessarily empirically perceived. Bhaskar (in Buch-Hansen, 2005: 57) defines “mechanisms” as follows:

“A mechanism is just something that makes something else happen – you could say that water boils because of its molecular structure. You could say, analytically, that this level of the non-actual real is deeper, it describes the level behind; this can sometimes be inside, it can sometimes be smaller as in the case of molecules, but it can also be wider.”

To the extent that they “make something else happen”, social structures are one example of such wider mechanisms. Critical realists operate with a relational understanding according to which social structures are “relations of various kinds: between people and each other, their products, their activities, nature and themselves” (Bhaskar, 1989: 81). In line with Marx, Bhaskar’s *Transformational Model of Social Activity* (TMSA) and Margaret Archer’s

*Morphogenetic Approach* underscore that social structures are always the outcome of human activities undertaken in the past, not in the present. Therefore, at any given point in time, agents are confronted by *pre-existing* structures that they then contribute to either reproduce or transform through their activities. Structures are both facilitating, in that they are the necessary conditions for the social activities of agents (Bhaskar 1979: 35), and constraining, in that although they never determine the actions of agents, they exert “an objective influence which conditions action patterns and supplies agents with strategic directional guidance” (Archer, 1995: 196, emphasis removed).

Similarly to other structures, social structures are generally not directly visible. Hence, “[s]ociety, as an object of inquiry, is necessarily ‘theoretical’, in the sense that, like a magnetic field, it is necessarily unperceivable. As such it cannot be empirically identified independently of its effects; so that it cannot be known, only shown, to exist” (Bhaskar, 1979: 57). This observation also applies to competition: it is not directly observable and can only be identified through its effects. In other words, we are dealing here with a social relation (i.e. structure) at the level of the real – a relation that is a causal mechanism to the extent that it has “actual” effects. The distinguishing characteristic of this social relation is that it creates rivalry by pushing businesses into a survival-of-the-fittest race. Those who are not sufficiently competitive are in danger of being reduced to insignificance or altogether eradicated. Although competition itself is not an action or activity (it is not something agents *do*), it only exists because companies, acting on the basis of specific strategies, *compete* on various parameters, including price and product quality. In other words, the activity of competing should be distinguished from the social relation of competition.

This observation clearly relates to the concepts of agency and structure. To link the two, Bhaskar introduces the concept of *position-practice systems*. The idea is that agents occupy particular structural *positions* (such as a job or the role as a family man) that are associated with particular resources, constraints, predicaments and powers and that motivate their “occupiers” to engage in particular *practices* (Bhaskar, 1979: 51; Porpora, 1989: 200). Accordingly, one can think of capitalist competition in terms of pre-existing social relations that, perhaps, exist *between* and impact enterprises occupying positions in a market system – relations that are subsequently, intentionally or unintentionally, reproduced or transformed as enterprises compete. Due to this social relation markets are not static: new markets and companies appear; to-the-death competition tends to reduce the number of structural positions in existing markets; and, over time, different companies occupy the market leader position. In the long run, both market structures and market agents change. Moreover, as will be discussed further in the next section, although capitalist competition can be defined as a social relation existing *between* enterprises, competition immediately impacts individuals occupying positions *within* these and other forms of position-practice systems.

Competition is an inherent feature of capitalism, but like other mechanisms, it never works in closed systems where event A always causes event B. Competition is unperceivable, but that does not render it a Smithian invisible hand that automatically pushes markets towards their equilibrium. Rather, competition functions in open systems where it is related to a large number of other structures and mechanisms. Thus, even though capitalist competition has clear, distinct features, its precise nature and effects can vary from one place to another and over time (on open as opposed to closed systems and the economy, see Lawson, 1997).

Marx gave much attention to capitalist competition which he saw as an expression of the inner nature of capital. In particular, he highlighted that competition causes capital to

concentrate and centralise, which ultimately threatens to undermine competition – and thus capitalism – itself. Competition, he wrote, “always ends in the ruin of many small capitalists, whose capitals partly pass into the hands of their conquerors, partly vanish” and results in the “...concentration of capitals already formed, destruction of their independence, expropriation of capitalist by capitalist, transformation of many small into few large capitals” (Marx, 1965 [1867]: 626, 625). Marx envisaged that, ultimately, all capital would be “united in the hands of either a single capitalist or a single capitalist company” (ibid.: 627).<sup>4</sup> With the benefit of hindsight, it can be concluded that capital has not been concentrated to the extent predicted by Marx, and that such a concentration is unlikely to occur in the future because a host of other mechanisms are at work in the capitalist system. For instance, various forms of legislation (including competition laws) or economic crises might slow down, block or even temporarily dissolve the process of concentration. The existence of such countervailing mechanisms means that there will be periods where no or little concentration of capital takes place. The rhythm of concentration is, in other words, far from constant (see also Poulantzas, 1975: 145).

In a given geo-historical context, a number of mechanisms affect the intensity of capitalist competition. In addition to those already mentioned, these mechanisms may include the wider regulatory climate, prevailing forms of corporate culture, the extension of collusive arrangements, the level of aggregate demand, profit rates, the degree of globalisation, the nature of financial markets and the availability of natural resources. Conversely, the intensity of capitalist competition can impact economic growth, the expansion of capitalism, commodification, distribution and (in)equality, profit rates, environmental degradation, the speed of innovation, wages, working conditions, prices, economic concentration/M&As and the formation of cartels (Marx, 1965 [1867]; Wigger, 2012; McDonough et al., 2010; Eekhoff & Moch, 2004; Lillie & Lucio, 2012; Palermo, 2007; Wigger & Buch-Hansen, 2013).

These various causes and effects of the intensity of competition should not be understood in terms of clearly delineated dependent and independent variables; rather, the structures and objects of the social world exist and develop in complex dialectical interplays with one another. Sometimes they reinforce each other, and in other cases, they cancel each other out. For instance, competition in a given product market will tend to result in lower prices. However, this effect can be eliminated or reduced if, for instance, the price of oil (or other factors of production) increases or if the producers in the given market form a cartel (for a discussion of cartels and competition, see Buch-Hansen, 2012). The same mechanism can also contribute to producing different results. Capitalist competition, for example, can cause a company to downsize, become more innovative, lower its prices or go out of business. Additionally, if competition becomes very fierce, it can push the profitability of the company down to a level where it cannot afford to invest in R&D. Whereas the type of competition that prompts companies to innovate can lead to economic growth at the macro level, competition that prompts companies to reduce wages and cut R&D spending can contribute to bring about a macroeconomic decline.<sup>5</sup> Indeed, as Stanford (2008: 137) observes, real-world competition

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<sup>4</sup> To say that competition creates a tendency towards concentration in the capitalist system is not to advance a teleological or deterministic argument that contradicts the critical realist agency-structure model. As Collier (2004: 144) notes, “the concentration of capital can happen only if people perform acts of working, investing, undercutting competitors in the market, buying up other firms, and so on. The point is that we can predict, with some degree of certainty, that people will do this. But no one is saying that the predicted outcome will occur whatever people do.”

<sup>5</sup> Several studies in the Social Structures of Accumulation literature, focusing on the evolution of capitalism in the United States, note that competition was generally muted during periods of prosperity, whereas fierce competition contributed to economic crisis and/or stagnation (e.g., Lippit, 2005; McDonough, Reich, & Kotz, 2010).

is often highly contradictory in nature inasmuch as some of its downsides are exactly opposite to its upsides. For this reason alone, it is unwarranted to simply take for granted that more competition in a market or a society is always, by definition, desirable.

### **Competition in the social cube**

This section utilises Bhaskar's concept of four planes or dimensions of social being, which he also refers to as "the social cube", to further develop the perspective on competition that was outlined in the previous section. The social cube can be seen as an extension or enrichment of the TMSA inasmuch as it adds transactions with nature and subjectivity to the basic agency-structure scheme.<sup>6</sup> The four dimensions are as follows: (a) social relations/structures and institutions; (b) social interactions between agents; (c) the subjectivity of agents; and (d) material transactions with nature (Bhaskar & Danermark, 2006; Bhaskar, 1994). The elements of each dimension should be "conceived as subject to multiple and conflicting determinations and mediations and as displaying to a greater or lesser extent (more or less contradictory) inter-relationality and totality" (Bhaskar, 1993: 160). Although "the impact of differing planes of activity on social outcomes may vary across time and space" (Wight, 2006: 175), all social phenomena are situated in all four dimensions. Undoubtedly, this consideration does not mean that all dimensions need to be referred to in every analysis of, for instance, capitalist competition. As Bhaskar and Danermark (2006: 289) note, it is the questions guiding the research that determine which dimensions are relevant to highlight. The merit of the social cube is that it offers a comprehensive ontology of social being, an ontology that is neither reductionist nor anthropocentric. Indeed, it emphasises that "human life in general is regulated and transformed by a constantly evolving complexity of various mechanisms emerging from physical, mental, material, human and social levels of reality" (Piiparinen, 2006: 429). In what follows, capitalist competition is situated in relation to each of the four dimensions.

(a) In the previous section, it was established that capitalist competition is a *social relation*, and, indeed, a mechanism without which capitalist economies cannot function. As such, competition is, in the first instance, a phenomenon of the first dimension of Bhaskar's social cube. This relational view breaks with mainstream economics, which views competition in terms of either the number of market participants or the interactions between atomistic entities. It has already been mentioned that this social relation is affected by, and in turn affects, a web of other structures and mechanisms. Similar to other social relations, competition should thus always be studied in its geo-historical context. As a social relation existing between companies in a market, competition affects companies. However, the intensity of competition in the market will often greatly impact the positions (and thus the individuals) within various companies. That is, competition between companies will generally impact the number of jobs, working conditions, length of the work day and wages (see also Marx, 1965 [1867]: 626). In the current era of the neoliberal competition state and global capitalism, competition between companies translates into competition between employees to an extent never seen before. With the decline of labour unions, and as a result of globalised competition, "workers were pushed to identify with their own employer, while undermining each other in the desperation to hang on to their jobs. Competition consequently fragmented

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<sup>6</sup> It should be noted that Bhaskar's explanation of precisely what each of the four dimensions of the social cube entails is not very detailed, and his labelling of the dimensions also differs somewhat from text to text. This variation leaves room for interpretations that differ from the interpretation underpinning the use of the social cube in the present paper.

the working class” (Albo et al., 2010: 79; see also Lillie & Lucio, 2012). However, it is generally not only employees who pay the price of competition. Studies show that from the 1980s onward, intensified competition has made it increasingly difficult for companies to sustain longer periods of competitive advantage (e.g., Wiggins & Ruefli, 2005) and that profit rates, in the nonfinancial part of the economy (at least in the US), have generally been relatively low during this period (Duménil & Lévy, 2011). The point is not to suggest that economic competition only has downsides, let alone that it would be desirably to have an economic system or society with no competition (cf. Wigger & Buch-Hansen, 2013). Competition can and sometimes does have the positive effects enumerated by mainstream economists, yet it has numerous negative effects as well.

(b) Although capitalist competition is a social relation, its existence is due to the practices and *social interactions* of competing agents (individuals and companies). Through such agency, competition is either reproduced or transformed. As social reality is populated by a high number of human beings who act in sometimes uncoordinated ways upon structures and phenomena that are related to a wider set of largely unacknowledged structures, unintended structural consequences often follow from intentional practices (Bhaskar, 1979: 42-44). Indeed, many of the social interactions that impact the nature of competition are not intended to do so. Workers in India accept wages that are lower than those of workers in the West, not with a view toward intensifying global competition, but because they need to make a living and provide support for their families under specific socio-economic circumstances. Likewise, consumers in the US do not purchase inexpensive Chinese products with the aim of intensifying the competition facing US corporations (in which many of those consumers are themselves employees) but rather because they wish to save money. Companies do not take over competitors to increase competition in the market in which they operate (quite the contrary), but this can sometimes be the end result if the acquisition is perceived as a threat by other competitors. This is not to say that the nature of competition cannot be affected in ways intended by agents. Collusive arrangements between companies and competition regulation by authorities are prime examples of practices that sometimes succeed in doing precisely this.

(c) The third dimension of social being is the *subjectivity of agents*. Human beings have different personalities, beliefs and inclinations. For this reason, it matters which agent occupies a structural position. It makes a difference whether, for instance, Gordon Brown or David Cameron is Prime Minister of Britain (even if the difference is perhaps smaller than many voters would wish for), just as it makes a difference who the CEO of a given company is. Subjectivity is also important in relation to competition. For example, a company can only be competitive if the structural positions within it are occupied by motivated individuals who have specific skills and personalities. Capitalist competition generally exists between companies, but competition also takes place between those occupying positions within companies. That is, employees generally compete with an eye toward advancing in the corporate hierarchy, and subjectivities matter greatly in this context.

Langevoort (2002: 970) notes that “ethical plasticity” is one important characteristic of successful employees: “success in highly competitive business organizations is skewed in the direction of rewarding those who are highly focused at the business of competing, which of necessity means the cognitive ability to block out concerns – like difficult ethical problems – that are likely to be distracting”. According to business anthropologist Michael Maccoby, there is a particularly high concentration of hard-core narcissists at the executive level, and this, in turn, further intensifies competition: “Organizations led by narcissists are generally

characterized by intense internal competition. Their passion to win is marked by both the promise of glory and the primitive danger of extinction” (Maccoby, 2004: 7). On a more positive note, competition can be motivating, giving individuals an incentive to do their best. Philosopher Jonathan Wolff (1998) points out that sometimes competitive markets have the effect of rewarding positive character traits such as “perseverance, tenacity, enterprise and effort” but he adds that “a talent for flattery, duplicity, manipulation, deceit about one’s own preferences and many other similar skills also find their reward in the market”.

Personalities are neither static nor unaffected by social relations. Being subjected to the win-or-lose logic of competition, while in turn contributing to the subjection of others to it, is likely to affect psychologies and inclinations over time. Kohn (1992: 78) cites studies showing that the effects of economic competition on subjectivities “include a loss of community and sociability, a heightening of selfishness, and such other consequences as anxiety, hostility, obsessional thinking, and the suppression of individuality”. Other studies find that, under specific circumstances, competition leads to cheating and unethical behaviour (Schwieren & Weichselbaumer, 2010; Shleifer, 2004). Importantly, other mechanisms are at play that may shift subjectivities in different directions and as such it would be altogether unwarranted to suggest that personalities are shaped by competition alone. Competition impacts, but does not determine, subjectivities. Importantly, not only individuals occupying positions in the corporate world are affected: in the competition state, most public organisations – including universities, hospitals and bureaucracies – have become exposed to ever-fiercer competition, as have the individuals occupying positions within them (Buch-Hansen & Wigger, 2011).

In addition to directly affecting subjectivities, competition also does so indirectly. The neoliberal competition state is coupled with a consumer capitalist economy. This economy depends on both the innovation of an endless stream of gadgets and the creation of demand for them. Competition contributes to both: it (sometimes) prompts companies to invest in R&D and in various forms of marketing. The latter, in turn, reinforces a consumer culture (in the first dimension) with ensuing consumer norms and mentalities (in the third dimension). One aspect of this mentality is that individuals consider their material possessions to be a part of themselves – a sort of “extended self” (Belk, 1988). With this consumption norm, which has increasingly spread from the West to other parts of the globe (Koch, 2012), the possession of the latest fashion items and consumer appliances becomes a sign of social status (see also Veblen, 2007 [1899]; Bauman, 2007). This culture and mentality creates the phenomenon of status competition premised on consumption (for a discussion of this form of competition, see Bourdieu, 1981).

(d) The fourth and final dimension of the social cube is *material transactions with nature*. The economic system is related to nature in two main ways: it relies on natural resources, and it uses nature as a waste-absorbing sink. Ecological economists such as Herman E. Daly (1991) have for a long time pointed out that the economic system is becoming too large relative to the biosphere, emphasising that natural resources are limited and that there are also limits to how much pollution and “global warming” the fragile ecosystems of the Earth can sustain (see also Trainer, 2011; Dietz & O’Neill, 2013). Yet, similar to other political economists, ecological economists have not given much attention to the environmental effects of competition (which is not, of course, to suggest that they ignore competition as such, see e.g., Daly, 1991; Cato, 2006). It has already been noted that the availability of natural resources impacts competition; thus, the focus here will be on the impacts of competition on the natural environment. Unsurprisingly, mainstream economists see this impact only in positive terms. In this view, competition is, indeed, an important part of the

solution to the environmental crisis facing humanity as it will lead to the innovation of new green technologies and cleaner forms of energy that can gradually replace more wasteful ones (Koch 2012: 185). With a bit of luck, competition will hereby contribute to solve not only the environmental crisis but also the economic crisis. Unfortunately, there are good reasons to be sceptical of this view: there are numerous examples of allegedly green innovations that have turned out to be harmful to the environment (see Magdoff & Foster, 2011), and even in those cases where competition prompts companies to innovate technologies that are less environmentally destructive than existing ones, the problem still remains that the economic system needs to grow – economic growth that competition, in some cases, contributes to bring about.

To the abovementioned issues, one can add a number of other environmental downsides to competition. First, competition spurs morally hazardous behaviour because lower environmental standards mean lower production costs and more competitive prices (Daly, 1996: 147). Second, by pushing down prices, competition facilitates increased consumption that has detrimental environmental effects. For example, fierce competition in the airline industry has forced down the price of flight tickets in the EU to the immediate benefit of consumers. However, the ensuing increases in airline traffic have had massive environmental downsides (for a discussion on aviation emissions, see, e.g., C. Lawson, 2012). Third, competition prompts companies to spend money on wasteful product differentiation, such as excess packaging aimed to make products look bigger or sexier, and to design products to wear out prematurely (Stanford, 2008: 137). Finally, and related to the third downside, competition leads to a process of what Schumpeter (2003: 81-86) called creative destruction, a phenomenon that is particularly intense in contemporary consumer capitalism. Companies are propelled to produce and sell more and more, and this creates a high level of throughput that depletes resources and increases pollution and greenhouse gas emissions. As one scholar notes, "[t]he cycles of creative destruction become ever more frequent. Product lifetimes plummet as durability is designed out of consumer goods and obsolescence is designed in" (T. Jackson, 2009: 97).

## **In conclusion**

Over the past few decades, a one-dimensional view of competition has become hegemonic. The bulk of economists and policy-makers agree that competition is a blessing, whereas the downsides of competition generally fall under the radar. To be sure, it cannot be denied that competition can be a good thing in capitalist markets if the latter are seen in isolation. However, such markets and competition are not isolated phenomena: they are embedded in – and can only exist because of – wider contexts. Consequently, real-world competition does not have an impact in only one or two domains, as many economists seem to assume. To be able to grasp the nature and effects of capitalist competition – and to be able to reach an informed (normative) position on the extent to which this phenomenon is desirable – a holistic or multi-dimensional perspective is needed. This contribution argues that the inclusive and non-reductionist ontology of critical realism can provide the skeleton of such a perspective. The perspective outlined here suggests not only that capitalist competition is a social relation that (generally) exists between companies but also that it has effects that extend beyond companies and the markets in which they operate. Indeed, it is fruitful to situate competition in all of the four intersecting dimensions of the social cube inasmuch as competition impacts other social structures, social practices, the subjectivity of agents and the environment. And in turn, other social structures and mechanisms intensify or mute competition, it is reproduced or

transformed through social interactions and practices, it is affected by the mentalities of agents, and premised on transactions with nature.

For critical realists, an essential task of the social sciences consists of illuminating social relations/structures, the nature and effects of which agents in the social world may not always be fully aware. In this view, social scientific practice involves a “movement from the manifest phenomena of social life, as conceptualized in the experience of the social agents concerned, to the essential relations that necessitate them” (Bhaskar, 1979: 32). In this way, a social scientific perspective has a transformative and, indeed, emancipatory potential that is, however, “contingent upon, and entirely a consequence of, its contextual explanatory power” (ibid.). Such aspirations resonate with the current paper, which has sketched out the features of a new perspective on what real-world competition is and does that is broader and more nuanced, and thus has greater explanatory potential, compared with the currently popular theories of competition. In this paper, a number of examples of how competition interacts with other mechanisms included in the four dimensions of the social cube have been provided. These examples draw on scholarly findings from different disciplines, indicating that further elaboration and refinement of such a perspective may require interdisciplinary research on competition. Such research could, for instance, involve collaboration between scholars of economic psychology, philosophy, critical business studies, business anthropology, ecological economics and other types of heterodox (political) economics.

## References

- Aglietta, M. (1979). *A Theory of Capitalist Regulation: The US Experience*. London: Verso.
- Albo, G., Gindin, S., & Panitch, L. (2010). *In and out of crisis*. Oakland: PM Press.
- Archer, M. S. (1995). *Realist social theory: the morphogenetic approach*. Cambridge: Cambridge University Press.
- Arestis, P. (1996). Post-Keynesian economics : towards coherence. *Cambridge Journal of Economics*, 20, 111–135.
- Baran, P. A., & Sweezy, P. M. (1966). *Monopoly Capital*. New York and London: Modern Reader Paperbacks.
- Bauman, Z. (2007). *Consuming Life*. Cambridge: Polity Press.
- Belk, R. W. (1988). Possessions and the Extended Self. *Journal of Consumer Research*, 15(2), 139–168.
- Bhaskar, R. (1975). *A Realist Theory of Science*. London and New York: Verso.
- Bhaskar, R. (1979). *The Possibility of Naturalism. A Philosophical Critique of the Contemporary Human Sciences*. Brighton: The Harvester Press.
- Bhaskar, R. (1989). *Reclaiming Reality. A Critical Introduction to Contemporary Philosophy*. Brighton: The Harvester Press.
- Bhaskar, R. (1993). *Dialectic. The Pulse of Freedom*. London and New York: Verso.
- Bhaskar, R. (1994). *Plato Etc. The Problems of Philosophy and Their Resolution*. London and New York: Verso.
- Bhaskar, R., & Danermark, B. (2006). Metatheory, Interdisciplinarity and Disability Research: A Critical Realist Perspective. *Scandinavian Journal of Disability Research*, 8(4), 278–297.

- BIS. (2012). *Growth, competition and the competition regime. Government response to consultation*. London: Department of Business, Industry and Skills.
- Bourdieu, P. (1981). Men and machines. In K. Knorr-Cetina & L. Cicourel (Eds.), *Advances in Social Theory and Methodology*. Boston: Routledge and Kegan Paul.
- Buch-Hansen, H. (2005). Critical realism in the social sciences. An interview with Roy Bhaskar. *Distinktion: Scandinavian Journal of Social Theory*, 11, 55–65.
- Buch-Hansen, H. (2012). Freedom to Compete? The Cartelization of European Transnational Corporations. *Competition & Change*, 16(1), 20–36.
- Buch-Hansen, H., & Wigger, A. (2011). *The Politics of European Competition Regulation. A Critical Political Economy Perspective*. London & New York: Routledge.
- Budzinski, O. (2008). Monoculture versus diversity in competition economics. *Cambridge Journal of Economics*, 32(2), 295–324.
- Cato, M. S. (2006). *Market, schmarket: building the post-capitalist economy*. Cheltenham: New Clarion Press.
- Cerny, P. G. (1997). Paradoxes of the Competition State: The Dynamics of Political Globalization. *Government and Opposition*, 32(2), 251–274.
- Cerny, P. G. (2010). *Rethinking world politics*. Oxford: Oxford University Press.
- Collier, A. (2004). *Marx. A Beginner's Guide*. Oxford: Oneworld Publications.
- Creaven, S. (2000). *Marxism and Realism*. London & New York: Routledge.
- Daly, H. E. (1991). *Steady-state economics*. Washington: Island Press.
- Daly, H. E. (1996). *Beyond Growth*. Boston: Beacon Press.
- Dietz, R., & O'Neill, D. (2013). *Enough is enough. Building a sustainable economy in a world of finite resources*. San Francisco: Berrett-Koehler Publishers.
- Duménil, G., & Lévy, D. (2011). *The Crisis of Neoliberalism*. Cambridge, Massachusetts: Harvard University Press.
- Eekhoff, J., & Moch, C. (2004). Competition - the Core of a Market Economy. In J. Eekhoff (Ed.), *Competition Policy in Europe*. Berlin: Springer.
- Fleetwood, S. (Ed.). (1999). *Critical realism in economics*. London & New York: Routledge.
- Fullbrook, E. (Ed.). (2009). *Ontology and Economics. Tony Lawson and his critics*. London & New York: Routledge.
- Heath. (2010). *Economics without illusions*. New York: Broadway Books.
- Hunt, S. D., & Duhan, D. F. (2002). Competition in the third millennium: efficiency or effectiveness? *Journal of Business Research*, 55(2), 97–102.
- Jackson, T. (2009). *Prosperity without growth: Economics for a finite planet*. London: Earthscan.
- Kalecki, M. (1971). *Selected Essays on the Dynamics of the Capitalist Economy, 1933-1970*. Cambridge: Cambridge University Press.
- Keen, S. (2011). *Debunking economics - revised and expanded edition*. London & New York: Zed Books.
- Keynes, J. M. (1973). *The General Theory of Employment, Interest and Money*. Cambridge: Cambridge University Press.
- Koch, M. (2012). *Capitalism and Climate Change*. New York: Palgrave.

- Kohn, A. (1992). *No Contest. The Case Against Competition. Revised edition*. Boston and New York: Houghton Mifflin Company.
- Krugman, P. R. (1979). Increasing returns, monopolistic competition, and international trade. *Journal of International Economics*, 9(4), 469–479.
- Langevoort, D. C. (2002). The Organizational Psychology of Hyper-Competition: Corporate Irresponsibility and the Lessons of Enron. *The George Washington Law Review*, 70(5/6), 968–975.
- Lawson, C. (2012). Aviation lock-in and emissions trading. *Cambridge Journal of Economics*, 36(5), 1221–1243.
- Lawson, T. (1997). *Economics and reality*. London & New York: Routledge.
- Lawson, T. (1999). Developments in economics as realist social theory. In S. Fleetwood (Ed.), *Critical realism in economics* (pp. 3–20). London and New York: Routledge.
- Lawson, T. (2003). *Reorienting Economics*. London & New York: Routledge.
- Lillie, N., & Lucio, M. M. (2012). Rollerball and the spirit of capitalism: Competitive dynamics within the global context, the challenge to labour transnationalism, and the emergence of ironic outcomes. *Critical Perspectives on International Business*, 8(1), 74–92.
- Lippit, V. D. (2005). *Capitalism*. London & New York: Routledge.
- Lipsey, R. G., & Lancaster, K. (1956). The General Theory of Second Best. *The Review of Economic Studies*, 24(1), 11–32.
- Maccoby, M. (2004). Narcissistic Leaders. *Harvard Business Review*, January, 1–9.
- Magdoff, F., & Foster, J. B. (2011). *What Every Environmentalist Needs to Know about Capitalism*. New York: Monthly Review Press.
- Marx, K. (1965). *Capital, vol. 1. Vol.* Moscow: Progress Publishers.
- McDonough, T., Reich, M., & Kotz, D. M. (Eds.). (2010). *Contemporary Capitalism and Its Crises*. Cambridge: Cambridge University Press.
- Nickell, S. J. (1996). Competition and Corporate Performance. *Journal of Political Economy*, 104(4), 724–746.
- Nielsen, P. (2002). Reflections on critical realism in political economy. *Cambridge Journal of Economics*, 26, 727–738.
- OECD. (1998). *Recommendation of the Council concerning Effective Action Against Hard Core Cartels*. 25 March 1998 - C(98)35/FINAL.
- Palermo, G. (2007). The ontology of economic power in capitalism: mainstream economics and Marx. *Cambridge Journal of Economics*, 31(4), 539–561.
- Peeperkorn, L., & Verouden, V. (2007). The Economics of Competition. In J. Faull & A. Nikpay (Eds.), *The EC Law of Competition* (pp. 3–85). Oxford: Oxford University Press.
- Piiparinen, T. (2006). Reclaiming the Human Stratum, Acknowledging the Complexity of Social Behaviour: From the Linguistic Turn to the Social Cube in Theory of Decision-making. *Journal for the Theory of Social Behaviour*, 36(4), 425–452.
- Porpora, D. (1989). Four Concepts of Social Structure. *Journal for the Theory of Social Behaviour*, 19(2), 195–211.
- Poulantzas, N. (1975). *Classes in Contemporary Capitalism*. London: NLB.
- Reardon, J. (2012). A radical reformation of economics education: educating real world economists. *Real-World Economics Review*, (62).
- Schumpeter, J. (1947). *Capitalism, Socialism and Democracy* (Vol. 2nd editio). New York: Harper & Brothers Publishers.

- Schumpeter, J. A. (2003). *Capitalism, Socialism & Democracy*. London & New York: Routledge.
- Schwieren, C., & Weichselbaumer, D. (2010). Does competition enhance performance or cheating? A laboratory experiment. *Journal of Economic Psychology*, 31(3), 241–253.
- Shleifer, A. (2004). Does Competition Destroy Ethical Behavior? *NBER Working Paper 10269*, (January).
- Soros, G. (1998). *The Crisis of Global Capitalism*. London: Little Brown and Co.
- Stanford, J. (2008). *Economics for Everyone*. London: Pluto Press.
- Stigler, G. (1957). Perfect Competition, Historically Contemplated. *Journal of Political Economy*, 65(1), 1–17.
- Syll, L. P. (2010). What is (wrong with) economic theory? *Real-World Economics Review*, (55), 23–57.
- Trainer, T. (2011). The radical implications of a zero growth economy. *Real-World Economics Review*, (57), 71–82.
- Veblen, T. (2007). *The Theory of the Leisure Class*. Oxford: Oxford.
- Wigger, A. (2007). Towards A Market-Based Approach: The Privatization and Micro-Economization of EU Antitrust Law Enforcement. In H. Overbeek, B. Van Apeldoorn, & A. Nölke (Eds.), *The Transnational Politics of Corporate Governance Regulation*. London and New York: Routledge.
- Wigger, A. (2012). The Political Interface of Financialisation and the Regulation of Mergers and Acquisitions in the EU. *Journal of European Integration*, 34(6), 623–641.
- Wigger, A., & Buch-Hansen, H. (2013). Competition, the global crisis and alternatives to neoliberal capitalism. A critical engagement with anarchism. *New Political Science*, 35(4), 604–626.
- Wiggins, R. R., & Ruefli, T. W. (2005). Schumpeter's ghost: Is hypercompetition making the best of times shorter? *Strategic Management Journal*, 26(10), 887–911.
- Wight, C. (2006). *Agents, Structures and International Relations. Politics as Ontology*. Cambridge: Cambridge University Press.
- Wolff, J. (1998). The Ethics of Competition. In A. H. Qureshi, H. Steiner, & H. Parry (Eds.), *Legal and Moral Aspects of International Trade: Freedom and Trade* (pp. 82–96). London & New York: Routledge.

**Author contact:** [hb.dbp@cbs.dk](mailto:hb.dbp@cbs.dk)

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**SUGGESTED CITATION:** Hubert Buch-Hansen, "Dimensions of real-world competition – a critical realist perspective", *real-world economics review*, issue no. 66, 13 January 2014, pp. 80-94, <http://www.paecon.net/PAERreview/issue66/BuchHansen66.pdf>

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# Information economics as mainstream economics and the limits of reform: what does the Stiglitz Report and its aftermath tell us?<sup>1</sup>

Jamie Morgan and Brendan Sheehan<sup>2</sup> [Leeds Metropolitan University, UK]

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## Abstract

In this paper we use the Stiglitz Report of 2009/2011 as a point of departure to explore the way the development in economics theory provides a limited contribution to further reform. In so doing we provide a detailed analysis of potential underlying problems of information-theoretic economics. We note this provides an additional way to consider Thomas Palley's concept of Gattopardo economics.

**Keywords** Stiglitz, finance, information-theoretic economics, Gattopardo economics

## Introduction

Ian Stewart aptly summarises the general tenor of the financial industry's underlying ethos regarding regulators and the global financial crisis: 'It's your fault: you let us do it.' (Stewart, 2012, p. 298). The statement is no more than an extension of the basic neoliberal credo that *you are responsible for everything we do to you* (Morgan, 2011). Both statements formally acknowledge the power of finance to act whilst diverting attention from the issue of where significant power resides. This issue of power is fundamental to the on-going problem of finance as a system in many ways.

In November 2008 the United Nations convened a Commission of Experts on Reform of the International Financial and Monetary System, with Joseph Stiglitz as chair. In September 2009, the Commission published its *Report of the Commission of Experts of the President of the United Nations General Assembly on Reforms of the International Monetary and Financial System* (2009).<sup>3</sup> This was then republished in 2011. The Foreword to the 'Stiglitz Report' emphasises that its roots in the General Assembly of the United Nations provided a platform for the Commission to place the global financial crisis in a genuinely global context, whilst also articulating a genuinely global response to that crisis. Though the Commission was accorded only unofficial status its analysis was, according to the authors, one with a broad-based constituency and legitimacy because it was rooted in the convocation of nations (2009: p. 10). By implication, narrower organizations, such as the IMF, are not legitimate vehicles for adequate reflection in quite the same way. As such, the Stiglitz Report was positioned as an opportunity to speak truth to power.

The subsequent reality of policy has confirmed many of the fears expressed in the Stiglitz Report. For example, there has been a degree of beggar-thy-neighbour policies pursued by individual states that have had adverse effects on others. This has included competitive

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<sup>1</sup> Thanks to Fred Lee, Jack Reardon, Vinca Bigo and Ioana Negru for use of some of their work in progress.

<sup>2</sup> Faculty of Business and Law, Leeds Metropolitan University

<sup>3</sup> All page references are to the original report published online by the United Nations, rather than the subsequent version published by New Press in 2011. The New Press version omits the paragraph enumeration.

currency manipulations and the use of monetary policy as a tacit subsidy and form of protectionism.<sup>4</sup> There has in general been a collectively (in the Report's phrasing) 'sub-optimal' approach to fiscal policy based on a domestic focus of any given 'stimulus package', and those fiscal policy solutions have been further undermined by an austerity discourse. That discourse, ironically has been rooted in the same economics ideology that presided over the prior boom i.e. (contra Keynes) a neoclassical framing, this time in terms of the concept of thrift (an early articulator of which was Marshall). Furthermore, the IMF has in the main continued to assert pro-cyclical conditionality when called upon to intervene. Its practical role, along with other key organizations has, despite its own published reservations, been punitive.<sup>5</sup>

Manifestly, there has been a lack of coordination of responses in the wake of the global financial crisis that actually take a global collective point of view (Sheehan, 2010, George, 2010). From a global perspective particular policy failures are indicative of an overall policy failure. They are a vindication of some of the analysis of the Stiglitz Report. However, the existence of an overall policy failure and the failure of the Stiglitz Report to galvanise its claimed constituency of states to appropriate collective action underscore basic flaws in the Stiglitz Report itself. These flaws are not restricted to the Stiglitz Report only but can be identified also in many of the subsequent elite policy documents and analyses that have emerged since the events of 2009.

The Stiglitz Report is in particular interesting and continues to be so because it is an early attempt to provide a stringent critique of the global financial crisis and the global economy that is also constrained by its context. As such, assessing the Stiglitz Report provides another way into issues recently raised by Thomas Palley under the guise of Gattopardo economics (2013). Analysing the Stiglitz Report is also of continuing interest because it provides an additional way to think about the continued resilience of neoliberalism as a knowledge framework; a matter also highlighted recently by Philip Mirowski (2013, also Mirowski and Plehwe eds. 2009).

The Stiglitz Report was positioned to speak truth to power, but also acknowledges that statements adopted by the General Assembly are products of 'compromise and calculated ambiguity' (2009, p. 7). The link between the Stiglitz Report and the General Assembly is thus also one of the recognition of the limits of speaking truth to power. This in turn becomes a problem of a self-limiting discourse of how truth is spoken to power in order to be an acceptable contribution. As such, the Stiglitz Report may well be directed at a global level of

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<sup>4</sup> One needs to be careful here. If one compares the last few years to the policy conflicts that followed in the Great Depression (see e.g. Hobsbawn, 1995), then the degree of conflict has been less. Still, the financial crisis has resulted in further stalling of the Doha round, contributed to the failures of Rio+20 and has resulted in various forms of self-interested policies. Quantitative easing (in various guises) and explicit or tacit exchange rate devaluations have been common across the major capitalist economies – as of the end of 2012 the US\$ was 12% lower in value against a standard basket of currencies than it was just prior to the crisis, and 30% less than it was in 2002 (hence the many protests from countries with key trading relations in the US\$, such as Brazil, who between August 2011 and January 2012 had reduced interest rates 10 times to try to offset the appreciation of the Real). The loosening of inflationary targets or ignoring the failure to meet them is likewise (whatever other explanations there may be) a self-interested way of reducing the value of debt. All the major convertible global currencies (in order US\$, Euro, Yen and £) have exhibited observable (though not always successful) devaluation strategies over the last 4 years.

<sup>5</sup> See, for example, the widely reported July 2012 resignation letter of Peter Doyle, an IMF senior economist, in which he is scathing regarding 1. The selection of the IMF leadership, 2 The suppression of otherwise recognized emerging problems prior to aspects of the financial and then European debt crisis and 3 The way in which the debt crisis is being managed (e.g. Robertson, 2012)

analysis and incorporate forms of critique but it is not without its constraints. Furthermore, it exhibits a variety of conceptual problems.

Our concern in this paper is that the analysis seeks to move beyond the archetypal problems of specific forms of economics theory but, arguably, does so within the same general frame of economics theorisation. One can argue that the information-theoretic economics and new institutionalism that seem to inform the Report ultimately share a common frame with the positions they critique. This framing places a limit on the analysis, despite the many laudable points of critique made in the Report. Again, a similar claim can be made for many of the contemporary commissioned reports and analyses and those that have followed (for example, The Turner Review of 2009, the G30 Report 2009 or the Independent Commission on Banking Report 2011). The Stiglitz report has multiple contributors and is not a technical document but it does exhibit certain commitments in terms of what the key problems of economics as a body of knowledge are and by inference what the appropriate adjustments in the economics framework are. This is important because there can then be a mismatch between the general commitments to change, which can be sincere, and the real limits of that change.

### **Key elements of the Stiglitz Report**

The Stiglitz Report is divided into six chapters, including an introduction and conclusion. It begins from the uncontroversial observation that the crisis manifested first in the 'core' of the global economy rather than the 'periphery' and that it manifested first in the financial sector, spreading then into the 'real' economy and generating adverse ripple effects through societies (2009: p. 12). The Report's initial premise is that the recognized crisis is not simply a set of events that are abnormal in the sense of unlikely, and abnormal in the sense of aberrations. Rather the system itself is the *cause* of the many manifestations of failure (2009: p. 8). They are consequences of the finance system and of the global economic architecture in general. The implication is that *preventable* crisis has become normal to the system (e.g. 2009: p. 132). This being so, it becomes necessary to identify the underlying systemic causes and to build from these to a variety of possible solutions. It is this combination that provides the Report with both motive force and a particular analytical structure over the course of the chapters. The Report is also shaped by a concern for developing countries that are in particular vulnerable to the adverse consequences of the crisis and its aftermath, particularly the inability of many developing countries to respond with the same level of fiscal and monetary support as more affluent countries during a period of collapsing aggregate demand, capital shortages, and capital flight (e.g. 2009: pp. 20-22). This concern, in turn, is enfolded in a broader commitment to democratic global governance for finance and economy.

In terms of the Report, the commitment to democratic global governance is not simply intended to stand as an arbitrary (if *ex ante*) means to construct a discursive position. It is rather a necessary corollary of the identified causes of the crisis (e.g. 2009: pp. 18-19). A lack of 'transparency' pervaded the system and a lack of effective representation of different interests was absent prior to the crisis. The combination contributed to limited critical analysis of finance and economy and a lack of 'accountability'. That lack allowed real vulnerabilities to accumulate as sectional interests developed. They developed in terms of organizations and practices, and did so often in the name of claimed universal benefits. As such, the Report takes the position that democratic governance is important because a lack of accountability not only means that those who cause 'injury' are not held responsible, it also means that they

remain in a position to perpetuate injury (e.g. 2009: p. 9). Furthermore, accountability ought to mean that those who are affected by policy have a say in its formulation; the inference being that where injurious outcomes can be anticipated they will be avoided by democratically infused and differently constituted institutional arrangements, regulatory and oversight powers, specific policies, and particular interventions. Democratic governance is then a core constituent in reform and reform is deemed 'necessary' because the cause of the crisis was systemic. However, the Report is careful to distinguish between necessary and hasty reforms. There should be due consideration of the need for short term mitigating policies to address immediate manifest problems of finance (bailouts etc) and economy (fiscal and monetary stimulus) and also due consideration of further reforms intended to have long term consequences for the architecture of the global economy. The former should give due consideration to appropriate context in terms of the further effects on other regions and states (implying global coordination to avoid inadvertent 'hysteresis' effects i.e. irreversible adverse consequences of self-regarding policies). The latter should be considered in terms of its compatibility with short-term mitigations.

According to the Report, compatibility, however, is not a matter of forestalling long run reforms but of giving careful consideration to how those reforms can be implemented. The Report makes the central claim that if the crisis has systemic causes then reform is 'essential' to any sustainable recovery (2009: p. 15). A key statement here is that 'countries that held themselves out as models of best practice' have been proven not to be (2009: p. 20). Across the Report there are four components to this claim. First, these 'best practice' countries (presumably the US and UK) were nodal points for the articulation of what is variously termed in the Report 'free market fundamentalism' or 'neoliberalism' (e.g. 2009: p. 132). Second, this 'ideology' was rooted in a particular form of mainstream economics theory; specifically Fama's Efficient Market Hypothesis (EMH) and various articulations with a family resemblance to EMH based on an axiomatic expression of self-correcting dynamic markets (e.g. 2009: p. 24). Third, this family of theorisations informed the 'best practice' of those countries regulatory regimes. 'Light touch' approaches based on limited oversight and a general ethos of *whatever is not prevented is allowed* supported successive (de)regulation. Efficiency axioms effectively dominated central bank policy, which focused on simple measures of price stability (e.g. 2009: p. 35). This was expressed, for example, in a neoclassical equilibrium model form through the Taylor Rule Theorem (the Theorem was also built into the dynamic stochastic general equilibrium forecasting models of central banks; see also Morgan 2009 and 2013). They shaped financial innovation in the form of the neoclassical Capital Asset Pricing Model applied to investment formulae; and efficiency assumptions also decisively shaped the construction of financial instruments. For example, normal distribution and idealised information were (are) at the heart of the Black-Scholes model for pricing derivatives and the standard model for constructing collateralised debt obligations (developed by David Li, e.g. 2000; see also Morgan and Negru, 2012).<sup>6</sup> Fourth, in so far as particular countries were nodal centres of an international financial system, the theory-practice combination they epitomised also permeated international financial markets and key global institutions. As such, both the positive form of the finance system and its significant gaps (such as shadow banking) were significantly related to 'best practice' rooted in theory and encouraged from particular geographies.

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<sup>6</sup> For an in-depth hermeneutic narrative of the diversity within understandings of derivative constructions see the work of Mackenzie within science studies (influenced by Latour, Woolgar and so forth). Mackenzie is keen to challenge a reductive technocratic account of derivatives and adds nuance to a simple tale of Gaussian copulas leading back to Li.

So, a major claim of the Report is that an underlying knowledge framework was a key constituent in the systemic causation of the crisis because it significantly structured what best practice would be and gave an impetus for the realisation of that 'best practice' (e.g. 2009: p. 20). The nature of that best practice was an important reason why the crisis manifested first in the core and first in the finance system. The way best practice has been rooted in a knowledge framework is identified, furthermore, as a key avenue for reform. Reform must be a combination of changes to the knowledge framework and corollary changes to best practice (encompassing institutions). It is this relation that is then pursued in various ways across the individual substantive chapters of the Report: stating vulnerabilities created by theory-practice, articulating reforms responding to the recognizable problems of theory-practice, and clarifying how those problems are also causes of the crisis and current limits on solutions to the crisis.

### **The constructive contribution of The Stiglitz Report**

The Stiglitz Report provided an important early contribution to the analysis of the global financial crisis and the subsequent and on-going global economic and social problems. It identifies many of the commonly recognized causes of the crisis – ranging from growing income inequality to the specific construction of financial strategies and instruments. Most importantly, it establishes quite clearly that the crisis has been a preventable consequence of the system, rather than simply an aberration within the system. This provides a solid basis for the claim that the system itself must change and that change must be global for a variety of related reasons. Finance has a global reach and thus must be regulated and controlled on a global basis. Since all states are affected by or involved in the operation of finance then all states should have a say in that regulation and control. Since, both the structure of finance and the consequences of financial crises have implications for the whole economy then finance must be made compatible with the stability and development of the whole economy – global and state. The overall approach to finance, therefore, must be embedded within a broader set of economic objectives and these must be coordinated at the widest level of cooperation.

The many specific proposals in the Report regarding policies and institutions all flow from this analysis. The underlying commitment moreover is that there is a need for a new theory-practice: one that eschews the inadequate knowledge framework of self-equilibrating and disciplining markets and that incorporates into regulation the recognition that markets are imperfect. Ultimately, the Report states that though 'debate' will continue:

The ideas and ideologies underlying key aspects of what have variously been called neo-liberalism, market fundamentalism, or Washington Consensus doctrines have been found wanting. Other ideas, which might have been more helpful in avoiding the crisis and mitigating its extent, were overlooked. (2009: p. 132)

The Report places a central importance on the role of the knowledge framework as an active part of the constitution of the real financial and economic system: it provides the basis for financial instruments, practices and policies, and it provides the justification for regulatory forms and for the use of any existing powers by regulators. A reasonable issue to, therefore, raise regards the limits within which the alternatives are conceived. How far in fact does the new analysis deviate from the old knowledge framework, *and*, in so far as there is some

difference what is the scope for the transmission of an altered knowledge framework (a change to or merely in the mainstream)?

### **The general frame of economics theorisation**

One might argue that the Stiglitz Report is critical of a particular theoretical form – essentially neo-classical economics, but conforms to a common set of underlying and problematic positions within mainstream economics. One must be careful here to avoid being misconstrued. The Stiglitz Report, like many of the subsequent commissioned responses to the global financial crisis, is clear regarding what is to be avoided – typically an idealised form of perfect markets based on rationality assumptions and self-equilibration through well-used information. There is then a fairly narrowly targeted theoretical critique – one of specific expressions of economic theory. The Stiglitz Report is then clear that a different knowledge framework is required, but provides no significant substantive contribution as to what that will be. It is simply held that the new approach to economics will be something other than a narrowly defined form of neo-classically informed theory. At the same time the language of the mechanics of reform for finance in the Report is in particular phrased in terms of the need to address issues of information problems, incentive problems and so forth. Although the Report is the product of many authors, brought together under Stiglitz as co-ordinating chairman, it is clearly influenced by an information-theoretic approach, and perhaps by new institutionalism. Reform implies the need for more and better information and for ways to adjust to problems of information. Again, one sees a similar approach in many of the subsequent reports. What we want to suggest is that the focus, phrasing, and ambiguity raise the issue of what kind of economics knowledge framework underpins the claimed change? What does it add, what are its weaknesses?

Work on information-theoretic economics, on behaviour and also the new institutionalism are manifestly improvements on the theoretical constructs of the neo-classical school. However, they are not a decisive break with the knowledge framework that they ostensibly repudiate. This is important, given that the Report places a great deal of weight on the real world impact of a dominant economics knowledge framework and on the role of an alternative knowledge framework in the reconstruction of global finance and economy.

We restrict ourselves here to considering the information-theoretic approach in order to illustrate the point. We would argue that the new economics theory of information actually shares a great deal of common ground with the neoclassical school. This should not be surprising. Its originality had to conform to a common discourse in order to be publishable – it had to be recognizably ‘economics’ in a world where editorial boards and refereeing were (as they mainly still are) dominated by neo-classical advocates. The key early contributors - Akerlof, Spence, Stiglitz and Schiller - were thus innovating within a narrow remit (Neilsen & Morgan, 2005). In his historical retrospective on the originality of information economics Stiglitz claims that:

The new information economics had profound implications for economics’ Weltanschauung. In standard neoclassical economics the deep properties of an economy – preferences and technology – determined outcomes. Not just distribution, but history and institutions did not matter. But there are natural irreversibilities associated with the creation of knowledge: history has to matter. Indeed economies with the same deep properties could have

markedly different equilibria. The new information economics not only showed that institutions mattered, and helped explain why institutions arose and the form they took, but showed why they mattered. (Stiglitz, 2000: p. 1452)

This is an encouraging statement – real time, real people, on-going events, and a ‘history’ of interactions all *matter*. The *starting point* of the approach is information. Information is asymmetric i.e. different parties have different information. Information is either unavailable or involves costs. Practices develop to deal with and exploit the asymmetries, or minimise the costs. These become rules of conduct that then continue to develop in terms of their potentials, creating different kinds of markets. Stated in ordinary language there is a great deal of plausibility in this approach. However, one cannot neglect that the approach had to become *recognizably* economics theory. As such, the general insights are ones that were, from their inception, also rendered methodologically commensurable with the dominant approach to economic theory i.e. a neo-classical approach. Information-theoretic economics had to be also compatible with the theory it set out to criticise. In terms of methodology, information-theoretic approaches have thus often adopted the standard economic theorisation form: axioms/assumptions expressed in a logically consistent symbolic exposition. Moreover, the approach has also tended to appropriate the language and concepts of neo-classical economics in order to be part of a common discourse.

For example, since a market involves asymmetric information across its multiple participants it is unlikely that a single ‘equilibrium’ will occur as a periodic outcome that definitively reconciles demand and supply. Rather, there will be a relatively stable disequilibria based on a persistent information gap (an ‘equilibria of disequilibria’). Also, since each participant still has a goal to pursue, subject to the recognizable information problems of the market, each will still achieve some end. As such, multiple participants are deemed to contribute to a fragmented market of multiple equilibria. Furthermore, in methodological terms, for relative (dis)equilibria to be *formally* demonstrated, there must be some kind of consistent source of order in the market based on its information dynamics *and* the response of economic agents to those dynamics. Accordingly, information-theoretic economists, notably Akerlof, introduced the concept of ‘near-rationality’. In economics, rationality has a particular meaning; it refers to both the unrestricted calculative capacity of the participant and their consistent use of information (see Muth, 1961, Sen, 1978 and Friedman, 1979). Near-rationality is a small deviation from the neo-classical rational actor, not a profound repudiation of it. A key reason for not entirely eschewing the concept is that rationality of this kind is useful in economics theory because it provides a link in theoretical exposition from conditions to outcomes. If one wishes to *demonstrate* in a mainstream economic theory or model that an outcome occurs one does so along broadly deductive lines. This becomes a proof. As such, the actual theoretical form of an otherwise initially plausible insight is one that becomes deformed in order to expedite the economic proof. The use of phrases like an equilibria of disequilibria and near rationality do not just pay lip service to a neo-classical lexicon, they are part of making the theoretical form compatible with its concept of valid expression of an economic argument.

Consider what this means for the information approach as economics theory:

1. Markets are considered to be dynamic based on information systems but the theory of information is one in which the basis of any uncertainty is stabilised; an equilibria of disequilibria and multiple such equilibria arise; asymmetric information works out to some definable points, demonstrated in the proof. However, for these definable points to arise the dynamics of the information system must be a given and thus the system

of dynamism is, in its theoretical or model expression, effectively closed or fixed; there is complex determinism but nonetheless *still* determinism. The initial focus of the economics tends also to remain the individual. Though s/he is not 'representative' in the neo-classical sense of a single stylised individual, the approach constructs a series of such individuals, and each typically shares, as an economic agent within that model, given characteristics of idealised near rationality, for no other reason than to expedite the proof that there is an explicable information dynamic that can be explored in a model.

2. As such, the notions of equilibria, of rationality, and of dynamics are quite at odds with the initial insight that the system is one of uncertain and unstable processes in real time. When modelled everything is stylised. 'Near rationality' only has meaning in terms of the *a priori* of an ideal state that bears no resemblance to social reality. One cannot have 'near sociality'. If one were to construct an axiom to enable a model based on such a concept the general strangeness of any such attempt – including 'near rationality' – becomes apparent. Similarly, any concept of equilibria only makes sense in terms of an *a priori* optimal state that does not exist. This is quite different in its sense than an empirically observed point of relative stability, whose observation occurs only under some description of an on-going system in process.
3. In terms of that process, the theoretical focus of an information approach remains one of price signals as a point of reference for the market. A market functions in a dysfunctional way based on its information asymmetries (its inefficiencies). The implication is that economics theory models the general implications of types of asymmetry and then contrasts this (at least implicitly) with ideal states in order to indicate what makes a market *more* efficient; but the concept of efficiency and of information in its ideal state are essentially the ideal states that the approach begins from recognizing are the basic weakness of a neoclassical approach.
4. This in turn leads to a potential misconception of what asymmetric information means in reality. Information asymmetry is not simply or always the difference in quantities of truth between economic agents. The disclosure of what another knows may mean that any agent then has 100% of the information available. But this does not make the information made available from multiple sources coherent or complete. Information made available can be in regard of values, data, rules, practices, and so on. It is a matter of kinds and qualities as well as differential availability. It is, therefore, complex in a way that necessarily resists any sense that information dynamics converge on points of (dis)equilibria (multiple though they may be) and resists any translation from this to the *necessity* that more information (transparency &c) is a contribution to solving problems of efficiency or stability. The requirements of a demonstration of equilibria and the implications of real information dynamics are thus quite different.
5. The point 4 highlights a basic tension in information-theoretic economics between its commitment to understanding real institutions and the methodological and conceptual aspects by which behaviour is explored in its theoretical and model form. By focusing on information and building its conceptualisations *outwards* from information one can marginalise the full complexity of socio-economic relations. One begins from a thin theoretical approach to history and institutions. Consider, for example, that structures of social relations are also seats of power that continue to exist irrespective of the

divulgence of more or less information.<sup>7</sup> Control of information is an expression of power but the power inherent in roles and positions in given structures, based on organizations, and so forth, is far more than a matter of information.<sup>8</sup>

One does not wish to traduce Stiglitz and advocates of information-theoretic economics here. Many of them recognize conceptual problems within the economics theorisation and it is a branch of economics that is constantly moving forward (see Durlauf and Blume eds, 2010). However, it is typically innovating within the methodological constraints it has inherited. Also, recognition that there are problems of conceptualisation is not the same as an actual repudiation of or moving on from the underlying sources of those problems.

In a positive vein one could engage in a lengthy treatment of the nuance of information-theoretic economics; highlighting its genuine improvements in comparison to the neo-classical approach. It has, for example, been used variously to express 'sub-optimality', to recognize realities that neoclassical economics simply assumes away, such as the observation that nominal wages are 'sticky downwards', to 'explain' the persistent failure of supply and demand to reconcile in any given market, and to provide an account of why a given market can be 'pathological' in its development. We don't wish to demean these achievements but we do want to put them into context. The branch of economics theory that Stiglitz's own work is rooted in, and which partly informs the Report, is not in its underlying aspects a decisive break with neoclassical economics in terms of initial theoretical form or language use. It is part of a mainstream economics discourse. Information-theoretic economics developed as a form of mainstream economics – it has not decisively altered mainstream economics, merely innovated within it in a relatively narrow way. Various commentators have recognized a growing diversity in the aspects of mainstream economics over the last decade (e.g. Davis, 2006). They have, however, also drawn attention to the limitations within that diversity (e.g. Lawson 2003, Colander et al 2006, Milonakis, 2012). The nature of change has then reduced the capacity for productive pluralism (Reardon, 2012).

Here, one can press a further issue. It is not just that information-theoretic economics tends to marginalise the full complexity of socio-economic relations, and provides a thin theoretical approach to history and institutions, it also fails to historicize its own significance as a constitutive part of knowledge production within social reality. One might, for example, question what it means for information-theoretic approaches to have *become* part of the mainstream. If one considers the underlying commonalities then one can view information-theoretic approaches as conducive more to assimilation rather than being actual sources of fundamental challenge. Recognizing this places a rather different significance on the Stiglitz Report's call for a different kind of economics. One can, for example, begin from the actual responses to the global financial crisis within the profession. Bigo and Negru (2013), for example, have conducted an extensive survey of the main economics journals, professional bodies, their conferences, and workshops and have found that there has been very little focus on or direct recognition of the financial crisis and its aftermath; and even less

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<sup>7</sup> Put another way commonly available information does not translate into the right to refuse an action or the capacity to undertake it; it is a condition of making an aware choice not a condition that makes the choice more or less coercive or necessarily possible; it can, for example, be placed in the context of issues of real (practical) and formal freedoms. The focus on problems of information as a starting point for institutions tends to invite the conceptualisation of structure as information *that then* embodies practice.

<sup>8</sup> One might more appropriately refer to information as limited rather than asymmetric, since asymmetric has stronger connotations of a potential completeness where one can have 100% of available information and this constitutes a coherency.

acknowledgement that the profession as a whole requires fundamental change because of it.<sup>9</sup> Most direct articulations have extended little further than Ben Bernanke's recognition that:

Some observers have suggested the need for an overhaul of economics as a discipline, arguing that much of the research in macroeconomics and finance in recent decades has been of little value or even counterproductive. Although economists have much to learn from this crisis, as I will discuss, I think that calls for a radical reworking of the field go too far. In particular, it seems to me that current critiques of economics sometimes conflate three overlapping yet separate enterprises, which, for the purposes of my remarks today, I will call economic science, economic engineering, and economic management. *Economic science* concerns itself primarily with theoretical and empirical generalizations about the behavior of individuals, institutions, markets, and national economies. Most academic research falls in this category. *Economic engineering* is about the design and analysis of frameworks for achieving specific economic objectives... *Economic management* involves the operation of economic frameworks in real time... the recent financial crisis was more a failure of economic engineering and economic management than of what I have called economic science. (2010)

This statement is indicative of the inertia within the field of economics. Influential economists continue to reject that there is anything fundamentally wrong with the knowledge framework. Here, one might argue that one ought to apply an institutional analysis to the role of economists that goes beyond that articulated in the Stiglitz Report. The Report emphasises the role of the knowledge framework in underpinning financial deregulation. But economics is not just contributing theory it ought also to be viewed as a significant institution. Such a view is implicit in an information-theoretic approach. However, explicitly acknowledging this in terms of the crisis and its aftermath invites one to conceive information-theoretic economics as part of the *internal* dynamics of mainstream economics. One might conceive of it as a constituent in the reproduction of the economics discipline in ways that, as *theory*, do not fundamentally challenge the grounds that the Report itself claims to be one key aspect of the financial crisis. In so far as this is the case, the lack of genuine pressure for fundamental alternatives within economics since the crisis becomes more explicable. Furthermore, explaining the lack of alternatives becomes more than simply identifying the family resemblances within the mainstream. It extends also to the way fundamental challenges have been and continue to be systematically and progressively excluded from economics departments. As a whole host of research over the last two decades has indicated, though mainstream economics is becoming more diverse in a narrow sense it is becoming less diverse in its overall constitution (e.g. Colander, 2008). For example, in the UK, old institutionalists, classical Keynesians, post-Keynesians, Marxists, green economists, feminist economists and purveyors of other more niche varieties of alternative perspectives are being forced out of economics departments, because of the structures of the REF system based on particular journal rankings and because of the predilections of department interview panels (e.g. Lee et al, 2013).

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<sup>9</sup> Organizations such as The Cambridge Trust for New Thinking in Economics are mainly heterodox initiatives. Even where figures such as Stiglitz are involved, the question remains one of the compatibility between the intent of the participants and the actual form of the economics they are committed to.

The important point here is that placing the theory form that underpins the Stiglitz Report within mainstream economics, and then placing the two within the institutional story of the crisis in a different way than the Report itself focuses upon, helps to account for two failures; first, the failure to secure a consistent fundamental and widespread recognition of the problems of economics theory amongst economists; second, the failure of any recognition that does occur within the mainstream to move decisively beyond the received theoretical forms of the mainstream. One might think that this is a minor issue for the Report, since it is written in ordinary language and is not a technical exposition in theoretical form. Moreover, the point of the Report is to galvanise policy solutions that focus on the structural dynamics of global finance and economy. However, a main claim of the Report is that theory-practice matters; that the knowledge framework must be profoundly altered. One cannot ignore the point, therefore, that the theoretical form, rather than the headline insights and commitments, is potentially a hindrance rather than a help.

Moreover, consider what the analysis developed here indicates concerning the Report. The Report focuses on information dynamics as a key constituent in adequate solutions to the crisis. However, the approach places structural changes within the context of informational changes. This, as we have previously argued, is a thin notion of structure. One might argue then that information-theoretic approaches do not just produce a conceptually thin notion of structure, the Stiglitz Report is itself thinly structured as an account of the world it analyses because it is based on this thin notion. There is a basic tension in the information-theoretic foundation here. From an information-theoretic approach one must assume that the prior mainstream dominance was a product of the nature of defective information then expressed in structures of social relations. But this would also imply that unequivocal changes in information would lead to a critical mass of argument and practical behavioural changes (including legal and organizational forms) expressed then in key structural changes in the global economy. The occurrence of the global financial crisis ought to have resulted in profound structural change because of the nature of positive information changes set in motion by subsequent recognitions (everyone recognizes the problems). Yet what has actually occurred is a combination of the occlusion of information and the entrenchment of vested interests.

If one refers back to the section Key Elements of the Stiglitz Report, the key commitment to democratic governance involves the claim that those who cause injury are to be held responsible and should not then also be in a position to continue to cause injury, which presumes a more democratic governance would facilitate these. However, the very lack of truly democratic governance, free from sectional interests has prevented this ideal outcome. One can consider this in various contexts. For example, key institutions such as the IMF have approached solving problems of fiscal crisis following the financial crisis by localising the distribution of costs to the victims of crisis. This has been the primary commitment. It has overridden any sense of a positive collective response, which the Stiglitz Report initially claims ought to be considered. A collective positive fiscal response rather than a collective imposition of damage limitation in terms of individual fiscal prudence, has simply not occurred. Instead localised intervention has been phrased as necessary (and thus positive – getting to grips with the reality of debt), but it is a necessity only if one accepts an austerity logic, and it plainly results in hysteresis effects and injury.

The possibility of pathology is not inimical to information-theoretic approaches or to behavioural economics or new institutionalism; but the reality is problematic for them, since the real issue here is not information per se but the *reasons* for the control of information.

These are not just properties of individuals or solely of the dynamics of given markets. They are matters of power and politics in an economic context. Since information-theoretic economics concerns itself with the constitution of markets it ought also to (if realistic) embrace the real construction of such markets. So, despite that the Report actually recognizes the dangers of such matters as hysteresis, it does so in a way one might infer is problematic in terms of the economics. The issue that should provide more of the focus for an adequate account is one that has a broader and deeper understanding of the political and of power within structures of social relations. This would provide a fuller and thus more realistic account of the grounds of the crisis *and* the potentials for the policy changes articulated.

### **Conclusion: A different kind of economics for a different kind of economy**

Recall that the core claim of the Stiglitz Report was that the system itself was a *cause* of the global financial crisis (2009: p. 8). The crisis was not simply an aberration. This means that *preventable* crisis has become normal to the system (e.g. 2009: p. 132) and reform must then also be of the system. The Report then claims that one must begin with short term mitigating policies (bank rescues etc.) but then move on to consider and construct long-term reform. However, as the years have passed the commitment to profound reform for the long term has receded. At the same time subsequent commissioned reports, analyses and influential policy documents have retained a familiar underlying language – a critique of the clear failings of a narrowly conceived form of economics theorisation – the EMH and so forth, which provided support for light touch regulation – and a concomitant sense that what is needed is more and better information (for transparency, accountability, governance, culture etc.), which will allow new institutions to temper future crises (see for example the vast majority of relevant Group of Thirty publications).

Consider what the limits here are. First, if we accept that the new economics shares some of the problems of the old, then one can ask to what degree is it actually providing better explanations of financial crises and also better means to anticipate them. The financial crisis was a product of real time activity in dynamic unstable and uncertain markets. The underlying commitments to model forms that have formed the basis of information-theoretic economics innovation can deform one's understanding and appreciation of these key characteristics. The focus is information and improving it, but within models of stylised activity. The scope for blind spots, complacency and explanatory failure are thus significant. Second, the focus on information and also on finance provides a narrow context for a much broader issue. It is rarely asked within the economics of finance why finance has become so powerful. One must look to global political economists, post-Keynesians and radical political economy for adequate accounts of financialisation (e.g. Fine 2010, Lapavistas, ed. 2012, Palley, 2009).<sup>10</sup> If one wishes genuine reform that addresses the problem of financial crises one must ask why finance of the kind that created the crisis was needed (not just simply allowed). This is an issue of income inequality and thus of the problems of debt creation.<sup>11</sup> It is an issue of how aggregate demand is created and maintained and so is an issue also of wages, the location of industry and the power of corporations. The Stiglitz Report recognizes problems of aggregate demand and of income as causes of the crisis but does not then push on from these to recognize them as constituents in a more coherent form of economics theory. There

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<sup>10</sup> Again we have no wish to traduce Stiglitz here. He has of course written insightful populist works on these subject matters, as has Schiller. But again, this highlights a mismatch, this time between the populist works and the economics theory also being developed.

<sup>11</sup> See also Fullbrook 2012.

is, therefore, a mismatch – one that speaks to Palley's Gattopardo claim. Moreover, these issues are simply absent in the majority of other significant reports on the financial crisis and its aftermath. The fact of their absence tells one something about the continued resilience of neoliberalism – it commands a thoughtscape. It also tells one much about the marginalisation of alternatives.

## References

- Bigo, V. and Negru, I. (2013) 'Mathematical modelling in the wake of the crisis: a blessing or a curse? What does the economics profession say?' *Cambridge Journal of Economics* pre-published online: doi: 10.1093/cje/bet063
- Bernanke, B. (2010) 'Implications of the financial crisis for economics', lecture, Princeton, 24<sup>th</sup> September, <http://www.federalreserve.gov/newsevents/speech/bernanke20100924a.htm>
- Colander, D. (2008) *The Making of An Economist, Redux* Princeton: Princeton University Press
- Colander, D., Holt, R. and Rosser, B. (2006) 'The changing face of mainstream economics', *Review of Political Economy* 16(4): 485-499
- Davis, J. (2006) 'The turn in economics: neoclassical dominance to mainstream pluralism?' *Journal of Institutional Economics* 2(1): 1-20
- Durlauf, S. and Blume, L. eds. (2010) *Behavioural and experimental economics* London, Palgrave Macmillan
- Fine, B. (2010) 'Locating financialisation', *Historical Materialism* 18(2): 97-116
- Friedman, M. (1979) 'Optimal expectations and the extreme information assumptions of rational expectations macromodels', *Journal of Monetary Economics* 5: 23-41
- Fullbrook, E. (2012) 'The political economy of bubbles', *Real World Economics Review* 59: 138-154
- G30 (2009) *Financial Reform: A Framework for Financial Stability* Washington DC: Group of Thirty
- George, S. (2010) 'Converging crisis, reality, fear and hope', *Globalizations* 7(1-2): 17-22
- Hobsbawm, E. (1995) *The Age of Extremes* London: Abacus
- Independent Commission on Banking (2011) *Final Report* London: ICB
- Lapavistas, C. ed.(2012) *Financialisation in Crisis* Leiden: Brill; Historical Materialism Book Series Volume 32
- Lawson, T. (2003) *Reorienting Economics* London: Routledge
- Lee, F. Pham, X. and Gu, G. (2013) 'The UK Research Assessment Exercise and the narrowing of UK economics', *Cambridge Journal of Economics* 37 (4): 693-717
- Li, D. (2000) 'On default correlation: a copula function approach', *Journal of Fixed Income* 9(4): 43-55.
- Milonakis, D. (2012) 'Economic Crisis and the Crisis of Economics: Ongoing developments within mainstream economics and what they signify', Working Paper presented at the Cambridge Realist Workshop Monday 29<sup>th</sup> October
- Mirowski, P. and Plehwe, D. eds. 2009. *The Road from Mont Pelerin: The making of the Neoliberal; thought collective* Cambridge: Harvard University Press
- Mirowski, P. (2013) *Never left a serious crisis go to waste: How neoliberalism survived the financial meltdown* London: Verso
- Morgan, J. (2013) 'Forward-looking contrast explanation, illustrated using the Great Moderation', *Cambridge Journal of Economics* 37 (4): 737-758
- Morgan, J. (2011) 'Ethos and reform of finance systems: a tentative argument', *Real World Economics Review* 58: 89-94

- Morgan, J. (2009) 'The limits of central bank policy: economic crisis and the challenge of effective solutions', *Cambridge Journal of Economics* 33(4): 581-608
- Morgan, J. and Negru, I. (2012) 'The Austrian Perspective on the Global Financial Crisis: A Critique', *Economic Issues* 17 (2): 22-55
- Muth, J. (1961) 'Rational expectations and the theory of price movements', *Econometrica* 29(3): 315-335
- Neilsen, P. and Morgan, J. (2005) 'No new revolution in economics? Taking Thompson and Fine forward', *Economy & Society* 34(1): 51-75
- Palley, T. 'Gattopardo economics: The crisis and the mainstream response of change that keeps things the same', Dusseldorf: IMK Working Paper, April 2013
- Palley, T. (2009) 'America's Exhausted Paradigm: Macroeconomic Causes of the financial crisis and great recession', New American Contract: a project of the New America Foundation Washington DC
- Reardon, J. (2012) 'A radical reformation of economics education: towards a new beginning', *Real World Economics Review* 62: 2-19
- Robertson, D. (2012) 'Senior advisor walks out of IMF with all guns blazing', *The Times* July 21st
- Sen, A. (1978) 'Rational fools: a critique of the behavioural foundations of economic theory' 317-344 in Harris, H ed. *Scientific Models and Man* Oxford: Oxford University Press
- Sheehan, B. (2010) *The Economics of Abundance: Affluent Consumption and the Global Economy* (Cheltenham: Edward Elgar)
- Stewart, I. (2012) *17 Equations That Changed the World* (London: Profile)
- Stiglitz, J. (2000) 'The contribution of the economics of information to twentieth century economics', *Quarterly Journal of Economics* 115(4): 1441-1478
- Stiglitz, J. Chair. (2009) *Report of the Commission of Experts of the President of the United Nations General Assembly on Reforms of the International Monetary and Financial System* (New York: United Nations)
- Turner, A. (2009) *The Turner Review* London: Financial Services Authority

**Author contact:** [J.a.morgan@leedsmet.ac.uk](mailto:J.a.morgan@leedsmet.ac.uk) and [b.sheehan@leedsmet.ac.uk](mailto:b.sheehan@leedsmet.ac.uk)

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**SUGGESTED CITATION:**

Jamie Morgan and Brendan Sheehan, "Information economics as mainstream economics and the limits of reform: what does the Stiglitz Report and its aftermath tell us?", *real-world economics review*, issue no. 66, 13 January 2014, pp. 95-108, <http://www.paecon.net/PAEReview/issue66/MorganSheehan66.pdf>

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# The $\aleph$ capability matrix: some observations on GDP and the economics of human development<sup>1</sup>

Jorge Buzaglo [Sweden]

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## Abstract

The paper argues against (per capita) GDP, even adjusted in different ways, as an appropriate indicator of economic advancement. Product and income accounting have their roots in classical political economy. The classical original focus on the generation and distribution of income among social groups and classes turned in the past century toward the measurement of output and income in a way useful to financing war and evaluating potential military capacity. National economic might as measured by GDP is not an adequate indicator of the economic advancement of a society. The paper puts forward the all-round development of individuals, understood as the enlargement of human capabilities, as the closest interpretation of the idea of (human) development. An attempt is made to give empirical, operational content to the idea, departing from the notion of need. A preliminary inspection of the capability space suggests that needs and capabilities can be analyzed as a hierarchical structure, this implying the possibility, by analogy with input-output analysis, of postulating a capability transformation table, and also a matrix of capability coefficients. The matrix  $\aleph$  (aleph) of capability coefficients has inherent potential rates of growth and equilibrium capability proportions. The capability transformation table may also be incorporated within the social accounting matrix framework, and associated with economic accounts, providing relevant information about the capability enhancing functions of different parts of the economy.

## Section I.

Economics needs to finally free itself from the fetters of mainstream, bourgeois economics and its mutilated and deformed view of the human being. This constricted view has imposed a heavy burden on society, particularly heavy for those at the bottom of the social ladder.

Mainstream, neoclassical economics is based in a demeaning view of the person, essentially seen as an egotistic or solipsistic automaton permanently trying to maximize material enjoyment. The microeconomics' individual strives to maximize "utility" through consumption. Maximal satisfaction is ensured through market exchange. Here is the fundamental ideological tenet of the theory: market exchange ensures maximal satisfaction and maximal "utility" for everybody. If there are "free markets," if there are no hindrances to exchange, says the mainstream theory, we will arrive to an optimal situation, where nobody's utility can increase without decreasing the utility of somebody else. This is the essential message of microeconomics. It is essentially a *laissez faire* message: an apologetic doctrine, according to which any attempt to change the "free-market," optimal state of things ends up in things getting only worse.

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<sup>1</sup> I would like to thank the organizers of the 7<sup>th</sup> International Symposium on Human Development Economics (Hefei, China, August 3-4, 2013) for the opportunity of developing and presenting these ideas. I have also benefited from the comments of an anonymous reader.

## Section II.

The approach of the economics of Keynes and his close followers, on the other hand, starts from a drastic observation: the actually existing economic system is not working towards the harmonious optimum promised by the traditional theory. What we observe, on the contrary, is mass unemployment, and extreme inequalities of income and wealth — the two most grievous faults of the existing economic system according to Keynes. We also observe widespread war and revolution. Hence, instead of an apologetic theory for which “free markets” and egotistic individuals alone ensure perfect social harmony, we need a theory able of explaining and coping with the problems we observe in the real world.

## Section III.

For that, we must depart from the existing economic system considered as a whole. The supposedly “rational” (that is, consistently egoistic and myopic) behavior of the individual cannot explain the functioning of the economic system as a whole. That leads us back to the perspective of the classical political economy of Smith, Ricardo and Marx. As a structured and dynamic whole, the economic system is composed of interacting elements — elements which are themselves less extensive wholes, in turn composed of less extensive interacting wholes, and so on. The fundamental interacting elements of the societies studied by the classics are the *social classes*. The most basic question to be analyzed by classical political economy is how, through the flow of value within the economic system, are determined the incomes of the main classes of the capitalist economy — namely, how is determined the distribution of income between landlords, capitalists and workers. The fundamental question is the determination of the three fundamental prices of the economy, (land) rent, profits and wages.

William Petty and François Quesnay were among the first to contribute to a comprehensive representation of the existing, real-world economic system. William Petty made the first detailed computation of “the wealth of the Kingdom” adding the total wealth of the different classes and social groups composing England’s economy at the time.<sup>2</sup>

Quesnay’s *Tableau Économique* (published in 1759) traces the circulation of the social product among what he called “*la classe productive, la classe des propriétaires & la classe stérile*”, social classes representing at the same time different production sectors. The social product is the result of a circular process of production and exchange which involves the reproduction of capital between social classes and within different production sectors. According to Marx (1968 [1863], Chap.VI.6), “this was an extremely brilliant conception, incontestably the most brilliant for which political economy had up to then been responsible.”

“[It] was an attempt to portray the whole production process of capital as a *process of reproduction*, with circulation merely as the form of this reproductive process; and the circulation of money only as a phase in the circulation of capital; at the same time to include in this reproductive process the origin of revenue, the exchange between capital and revenue, the relation

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<sup>2</sup> See *Verbum Sapienti*, Ch.I, in Petty (1899 [1662]). William Petty was for Marx a most ingenious and brilliant economist of deep insights, whose analyses contained in germ the labor theory of value (Marx 1968 [1863], Part I, Addenda 2). Gregory King made a similar computation of the income, expenditure and saving of the population of England in 1688, divided into twenty-six social classes, ranging from temporal lords to vagrants (see description and sources in Stone 1986).

between reproductive consumption and final consumption; and to include in the circulation of capital the circulation between consumers and producers (in fact between capital and revenue); and finally to present the circulation between the two great divisions of productive labour — raw material production and manufacture — as phases of this reproductive process; and all this depicted in a *Tableau* which in fact consists of no more than five lines which link together six points of departure or return — [and this was] in the second third of the eighteenth century, the period when political economy was in its infancy — this was an extremely brilliant conception, incontestably the most brilliant for which political economy had up to then been responsible.” (Marx 1968 [1863], Chap.VI.6)

Marx developed and deepened these ideas in the second volume of *Capital*, providing a first building block of what would become the wide class of structural(ist) models of the economy, such as the input-output economics of Leontief, and the Social Accounting Matrix (SAM) approach related to the work of Richard Stone and associates at the University of Cambridge.<sup>3</sup>

An important milestone on the way to these new disciplines, not often recalled today, was the attempt to construct a “national economic balance” in the Soviet Union of the 1920s. This intended tool of planning for growth and industrialization, cast in the form of an input-output table for 1923-1924, was an empirical implementation of the ideas underlying the reproduction schemes of Marx.<sup>4</sup> Still a student at Leningrad University, Wassily Leontief wrote about this work:

“What is essentially new in this balance ... is the attempt to embrace in figures not only the output but also the distribution of the national product, so as to obtain in this way a comprehensive picture of the whole process of reproduction in the form of a kind of ‘Tableau Économique’” (Leontief 1964 [1925]).

The Soviet work on national economic balance may have been the inspiring conceptual link between the reproduction theory of Marx and Leontief’s input-output system.<sup>5</sup> Be that as it may, for authors cognizant of the Marxian tradition, it was easy to see the direct connection between Marx’s reproduction schemes and Leontief’s input-output models. As Oskar Lange put it:

“[t]he structure of production input equations ... is the same as that of Marx’s schemes... It can be seen that the production input equations are an

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<sup>3</sup> For details on the extensive work of Stone and associates, see: University of Cambridge, Department of Applied Economics (1962-1972).

<sup>4</sup> This was published in 1926, and the names associated with it are those of V. G. Groman and P. I. Popov (Stone 1986, p. 121; see also Davies and Wheatcroft 1985). Stalin thought this kind of work was “a game with figures” (Spulber and Dadkhah 1975). Groman was condemned to ten years prison in the “Menshevik trial” of 1930-31, one of the first of a series of show trials in which several prominent economists were condemned (*inter alios* Kondratiev, Chayanov and Ginzburg) — Groman was probably killed while in prison (Jasny 1972).

<sup>5</sup> Also relevant may have been the fact that Ladislaus von Bortkiewicz was Leontief’s dissertation adviser at Berlin University in the 1920s (Kurz and Salvadori 2000, p. 169). Bortkiewicz (1998 [1907]) was the earliest resolution of the “transformation problem,” of consistently transforming labor values in prices of production (see e.g. Baumol 2000).

extension of the division of the Marxian schemes into  $n$  branches.” (Lange 1969, p.47)

#### Section IV.

In the West, the interest in the workings of the real-world economic system — in contradistinction to the unreal, apologetic model of orthodox economics — came first with the Great Depression, mass unemployment, social turmoil, and the resulting reawakening of interest in the behavior of social classes (such as capitalists-investors, or workers-consumers) and economic aggregates (such as total employment, social product-national income, or profits-investment). And it was in fact a Marxist, Michal Kalecki, who first articulated the ideas that became world-known with the *General Theory* (see e.g. Robinson 1976).

However, it would appear that it was only under the very ominous and devastating pressure of World War II that orthodox economic theory and policy did leave the spotlight — temporarily, as it would be shown few decades after. In effect, one of the first important modern contributions to the conceptual framework of national accounting came from Keynes, and was directed toward formulating national income accounts in a way useful to war finance — his 1941 Government White Paper was entitled *An analysis of the sources of war finance and an estimate of the national income and expenditure in 1938 and 1940*.<sup>6</sup> Another characteristic title by an important author on the subject, Simon Kuznets, is *Uses of National Income in Peace and War*.<sup>7</sup>

That is, the focus of the modern idea of national product or income was strongly influenced by the interest in assessing the capacity of national resource mobilization for war. The focus was the material might of the nation, particularly the capacity achieved in production for (direct and indirect) military use, and in production that may relatively easily be converted to military use. The material might of the nation reflected its capacity at war. It was relevant, and even crucial, in a world of nations competing for dominance and military supremacy, to be able to evaluate total output, its material components, and the capacity to transform peacetime output in war production. The gross national product of a country is the number that synthesizes the material might of the nation, and which indirectly shows its capacity at war.

#### Section V.

The early interest in the problem of distribution was thus lost. The increase of national output is interpreted positively even if this involves a decreasing wage share (or in Marxian terms, an increasing rate of exploitation), and diminishing incomes for a large majority. The focus is not the health and advancement of individuals, but the vigour and might of the nation.<sup>8</sup>

The nationalistic emphasis of national accounting is in potential conflict with the logic of capitalism. The logic of capitalism is capital accumulation. The growth and accumulation of

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<sup>6</sup> See UK (1941). Keynes was assisted in this work by James Meade and Richard Stone. It must be said that Petty's and King's original interest was also in assessing England's war potential.

<sup>7</sup> In this study Kuznets estimates, for instance, that a maximum of about 15 per cent of national product can be turned to war production (Kuznets 1942, p. 16).

<sup>8</sup> In recent decades, several distribution-sensitive indicators have been proposed. These include, for instance, the *efficiency-equity* index ( $GDP \times (one \ minus) \ Gini$ ), or also the *equal weights* index (in which the incomes of the different income classes are given the same weights) — see e.g. Buzaglo (1984, pp. 112-116). These indicators, however, did not gain any popularity with academia, politics, or the media.

capital are ends in themselves, engraved in the genetic code of the system. The end of capital is not the power of the nation — much less the increased welfare of its members. National power — and occasionally also welfare — are unintended consequences of capital accumulation.

Unsustainable national economic processes, such as for instance massive capital flight, or exploding foreign indebtedness, or structural involution (e.g., de-industrialization, re-primarization or *extractivism*), pertain intimately to the logic of global capitalism, but are alien to the logic of national accounting, in the sense that such phenomena may be indefinitely made consistent with increasing national product. In general, it could be said that the logic of capital is extended reproduction at an ever larger (global) scale, while the perspective of national accounting is, of course, national. National accounting measures the degree of success in the expanded reproduction of national capital — until national capital “goes global.”

Unsustainable environmental processes, such as global warming or natural resource depletion, as we know, have no place in standard national accounting — but there are attempts and proposals for “green accounting,” e.g. including estimates of the costs of depleting “natural capital,” or the costs of environmental degradation. These processes should be reflected by the accounting principles, and as they affect all types of economic systems, they should also affect a prospective human development accounting. The increasing risk of environmental collapse and the costly damage involved in such processes should be reflected by an appropriate reduction of the measure of performance, whatever the indicator would be.

## Section VI.

Now, as I see it, the approach of *human development* accounting should be totally different from the approach of *national* accounting. Human development accounting should not try to correct or adjust in different ways the measures of national power as measured by (per capita) GDP, as is the case with the proposals mentioned above — and as is also the case of the *Human Development Index* of the United Nations Development Programme.<sup>9</sup> Human development accounting should have an appropriate orientation and a clear focus on, yes, human development.

Human development accounting should reflect *human flourishing*, the blooming of individuals and societies. While capitalist development has implied, and still implies, an increased subjection to capital and an increased human alienation (alienation *vis-à-vis* other humans and *vis-à-vis* nature), human development should be the opposite process of human de-alienation and emancipation. Human development and flourishing should be the process by which human beings reintegrate and reconcile with themselves, with each other, and with nature.<sup>10</sup>

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<sup>9</sup> The UNDP work represents a huge step forward in comparison with the mainstream view of economic growth and welfare. The Human Development Index, developed under the direction of Mahbub ul Haq (see UNDP 1990), is the geometric mean of three (normalized) indices: life expectancy, education, and income per capita. The main conceptual basis of the index is Sen's capability approach to welfare and well-being (see e.g. Sen 1985, 1988). Martha Nussbaum is another of the major contributors to the approach (see e.g. Nussbaum 2011). The Aristotelian and liberal philosophical background of this approach is supplemented here by a different, complementary approach, rooted in the radical-Enlightenment perspective of Spinoza (Buzaglo 2003) and the socialist ethics of Marx and others.

<sup>10</sup> In the words of Marx (2004 [1844], p. 104): “It is the definitive resolution of the antagonism between man and nature, and between man and man.”

Human reintegration and reconciliation imply a process of enlargement of the individual perspective towards the inclusion of the Other. In this process, the individual perspective is enlarged beyond the avid and fearful ego — of which *homo oeconomicus* is one of its many incarnations — to increasingly include the larger, multiform ego of fellows, society, humanity, and so on, extending towards endless Nature.

Bertrand Russell introduced the useful notion of *impersonal self-enlargement*.<sup>11</sup> Without a successful process of impersonal self-enlargement — which implies the behavioral counterpart of enlarged activity spheres of empathy and solidarity — it seems impossible to advance beyond human alienation and money/capital fetishism.

The jealous control of, and enslavement to, one's possessions originates in the fear of the Other. Self-enlargement is a form of moral enlargement, the development of the moral strength, or fortitude, necessary to overcome the fear of the Other, always threatening to take away from me what I see as my very self, i.e., my cherished possessions. Impersonal self-enlargement enables individuals to not fearfully see the Other as a potential aggressor and enemy, and to increasingly be able to spontaneously function in an environment of human commonality. That is, impersonal self-enlargement is at the same time moral enlargement, or enlarged moral strength. Enlarged moral strength enables individuals to naturally function and flourish in an environment of expanded commons, an environment of enlarged spheres of common property and management.

The crucial question then is: What makes morally intelligent and strong individuals?

Strong individuals, capable of flourishing in a society of equals largely based on common management and common ownership, are individuals who have developed personalities, which have been enriched by an all-round process of increasing aptitude in a growing domain of different exertions.<sup>12</sup>

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<sup>11</sup> See for instance Blackwell (1985).

<sup>12</sup> As Marx and Engels forcefully put it: "private property can be abolished only on condition of an all-round development of individuals." (Marx and Engels, 1976 [1845-1846], III, "Conclusion to 'The Unique'"). It is interesting to see the context of that often cited phrase — we quote the sentence *in extenso*:

"We have already shown above that the abolition of a state of affairs in which relations become independent of individuals, in which individuality is subservient to chance and the personal relations of individuals are subordinated to general class relations, etc. — that the abolition of this state of affairs is determined in the final analysis by the abolition of division of labour. We have also shown that the abolition of division of labour is determined by the development of intercourse and productive forces to such a degree of universality that private property and division of labour become fetters on them. We have further shown that private property can be abolished only on condition of an all-round development of individuals, precisely because the existing form of intercourse and the existing productive forces are all-embracing and only individuals that are developing in an all-round fashion can appropriate them, i.e., can turn them into free manifestations of their lives. We have shown that at the present time individuals *must* abolish private property, because the productive forces and forms of intercourse have developed so far that, under the domination of private property, they have become destructive forces, and because the contradiction between the classes has reached its extreme limit. Finally, we have shown that the abolition of private property and of the division of labour is itself the association of individuals on the basis created by modern productive forces and world intercourse."

## Section VII.

The all-round development of individuals can thus be understood as the process of expanding moral strength. Each facet of the personality expressing a particular capability is a particular virtue. Virtue *is* (moral) power. Expanded virtue implies expanded power over the own self, i.e., increased power to restrain the *passions*. This includes particularly the capacity to restrain economic passions such as avarice, greed and envy.<sup>13</sup> Expanded virtue also means extended domains of own creative *action*. Moral strength, fortitude and generosity are built by exploring, exercising and strengthening every dimension of the human endeavour.

## Section VIII.

These ideas about how to understand human improvement are of course not new. We can find traces of them in many, very old intellectual traditions, East and West, South and North. These old traces have been rediscovered in recent times, and are being cultivated and developed not only in economics, but also by neuroscience, cognitive science and other scientific disciplines — and also within different modern philosophical, psychological and pedagogical schools.

It is not an easy task to try to increase the concrete, empirical content of the general idea of human development as human capability growth. Even more difficult is to express human development in the form of a metric of empirical, measurable dimensions, and to closely relate this metric to the workings of the economic system as a whole. However, as I see it, the huge importance of the task makes any effort in that direction worthwhile. My comments and suggestions are to be understood as tentative and conjectural, and largely taken as an example of the difficulties that such an undertaking may involve.

## Section IX.

In my view, one of the first conceptual clarifications that should be done in approaching the empirical characterization of the space of capabilities is to clearly differentiate between active and passive behaviors. To acquire a particular capability should imply an increased ability to *act* (move/think) autonomously, in a particular way or set of ways, taking into account the learned characteristics of the external environment. A behavior which does not denote autonomy, but which reflects (open or covert) coercion, or which is induced by conditioning, is a passive behavior. Typically, a *passion* is a thought or behavior which has been induced by external impulses, without the conscious, reflexive involvement of the agent. Much of the consumption activities of the affluent, for example, are the result of non-reflexive, automatic response to different forms of conditioning and manipulation. The same type of problems of spurious choice appears in the making of political power.<sup>14</sup>

We are then concerned with the specification of *actions* — i.e. *not* passions — which express the acquisition of capabilities reflecting the all-round development of individuals. In other

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<sup>13</sup> These passions have been interpreted as a neurotic complex within the psychoanalytic *anal character* structure (see works by Freud, Ferenczi, Abraham and others in Borneman 1976). *Parigraha* is an old equivalent in Indian traditional philosophy.

<sup>14</sup> There is for instance a whole series of experimental results on *priming effects*, i.e. behaviors that have been induced in the agent without her being conscious of it. “Studies of priming effects have yielded discoveries that threaten our self-image as conscious and autonomous authors of our judgments and our choices.” (Kahneman 2012, p. 55)

words, the multidimensional human capability space should account for every conceivable dimension of human activity.

## Section X.

A natural place to start a preliminary inspection of the capability space is the set of *basic needs*. Needs are of course not capabilities, but the ability of individuals to provide for their basic needs could be called *basic capabilities*. There is a quite large literature on basic needs, investigating in great detail many relevant aspects of the *basic needs approach*, actively promoted by international organizations (particularly the International Labour Organization) in the 1970s and 1980s. Considered among the most basic human needs are food, water, shelter and clothing — expanded lists also include sanitation, education, and healthcare.

The basic needs approach refers to the most basic conditions for physical survival. More general theories of human need include *personal autonomy* as a human need as important as physical survival (Doyal and Gough, 1991). The achievement of personal autonomy would require more elaborated conditions than mere physical survival, such as a certain level of economic security, physical security, a non-hazardous environment (including the work environment), significant primary relationships, safe birth control and child-bearing, and security in childhood. Additional conditions refer to the political system, which should be open to democratic participation and to rational confrontation of ideas, communication and decision. All participants should have the needed knowledge and information to understand the essentials of the issues of the social debate.

Maslow's (1954) theory of the hierarchy of human needs offers an even larger account of human needs, in which basic physical survival needs form the base of the pyramid of needs. The stipulated physiological needs fundamental for survival of this strand of developmental psychology is more detailed than those of the basic needs approach. They are: breathing, food, water, sex, sleep, homeostasis, excretion. This more detailed list allows for introducing the discussion of basic *environmental capabilities*. Air pollution, for instance, impinges on the basic capability of normal, healthy breathing. Contamination by noise affects the capability of sleeping. The proliferation of toxic substances and other environmental stress factors restrain the capability of the organism for homeostasis — i.e. maintaining a viable physical equilibrium over time. Food and water can also of course be analysed from the environmental point of view — as also excretion, directly related to the capability of dwelling with good sanitary conditions.

It is interesting to see sex among the basic needs. In spite of its obvious and all-pervading presence in modern life and culture, sex is absent from most serious discussions of needs, capabilities and human fulfilment — not least from the economic point of view. (Although safe birth control in Doyal and Gough's analysis relates to this.) We will not be able either to develop here this fundamental and taboo-laden subject, but the action/passion dichotomy should give a first approximation from the capabilities' perspective towards a mature, active, egalitarian approach to human sexual/libidinal development.

The second level of the developmental pyramid of needs is given by security. A releasing feeling of trust in relation to: the body (personal security); to economic standards (employment, pensions), to health (absence of, or protection against, illness and accidents). The third level refers to the general feeling of love and belonging. In terms of capabilities, this would relate to the possibility of establishing ties of friendship and love at different levels and spheres of personal and social activity.

The fourth and fifth developmental levels refer to subjective feelings, such as self-esteem, self-respect, self-confidence and self-actualization. However, introspective evaluation cannot be a safe base for ordering socioeconomic states according to the idea of human development. As in the case of the current fad of “happiness economics,” attempts to give objective content and serious scientific status to so feebly based notions are fated to fail.<sup>15</sup> In a severely alienated population, widely shared feelings of happiness and self-confidence may coexist with extended poverty, inequality and oppression. In an imaginary society of manic-depressive individuals, for instance, the probability of an individual declaring being “happy” would be 0.5, and the probability of reporting “unhappy” would be 0.5.

Human development should be understood as the expansion of the *objective capability space* of individuals. Increased objective capabilities would by themselves involve enlarged subjective self-esteem and self-actualization for increasing numbers of individuals. “Happiness,” as a subjective, self-centred, and potentially delusory feeling, I think is alien to the conception of human development.<sup>16</sup>

## Section XI.

One may conjecture that the idea of a hierarchy of needs and capabilities, along with the possibility of obtaining objective measures for the different capabilities, could allow for the conception of what one may call a society’s *capability matrix*. In effect, the idea of a hierarchy of needs and capabilities, in which some basic categories of needs/capabilities are the precondition for the fulfilment of other, less basic, categories, which in turn are the preconditions for the fulfilment of other less basic categories (and so on), suggests the conception of (some) capabilities being the necessary “inputs” for the formation of (other) capabilities. If the advancement of capabilities is measurable, and if it is possible to ascertain the proportions in which different capabilities enter in the formation of any one of them, then it would in principle be possible to postulate the existence of a *capability matrix*. It should also be possible to empirically implement such a matrix, and even to integrate it within the framework of the Social Accounting Matrix (SAM). We will return to this in later on.

## Section XII.

It is important to remark that most of the needs/capabilities discussed above are also human rights, according to the Universal Declaration of Human Rights of 1948, adhered to by all members of the United Nations. The universally recognised rights include the rights to:

- life and liberty,
- a standard of living adequate of health and wellbeing, including food and housing,
- social protection in times of need,
- the highest attainable standard of physical and mental health,
- work and just and favourable conditions of work,

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<sup>15</sup> Introspective evaluation of happiness can for instance be influenced by “priming” (Kahneman 2012, Ch. 38). “During the last ten years we have learned many new facts about happiness. But we have also learned that the word *happiness* does not have a simple meaning and should not be used as it does.” (Kahneman 2012, p. 407)

<sup>16</sup> “Freedom,” “joy,” or “beatitude,” should come closer to what we can imagine of the feeling of de-alienated, self-conscious, free individuals, in free, self-conscious, and de-alienated societies.

- education and access to information,
- participate in the political process and in cultural life,
- physical integrity and security.

Among other universally consecrated freedoms are the freedoms of religion, opinion, speech and association, and the freedom from discrimination of any kind in the grounds of race, sex, language, religion, national or social origin or other status (see, e.g., [www.ohchr.org](http://www.ohchr.org)).

Indeed, it would seem that in some sense, the United Nations' declaration of 1948 was remarkably bold, not only by giving the status of basic universal rights to an extended category of needs/capabilities, but also for going farther than later proposals by researchers and institutions. Particularly important for our discussion, and often neglected, even in rich countries, is the universal human right "to work and to just and favourable conditions of work." From a capability point of view — and, I think, from any other view putting the all-round development of individuals at the centre stage of human development — the world of work should take a central place and a special weight in the capability space. Work occupies most of the energy, time and engagement in the lives of most people. Work as *action*, as autonomous activity expressing the individual's creative power, is a most basic human capability. Work as passive, mechanical subjection to the productive apparatus as mere work-force, on the other hand, detracts from the possibility of human development. Unemployment also detracts from that possibility. So the work capability sphere should include the many dimensions that express autonomous participation and decision capacity at work, from the factory floor to the board of directors of firms and institutions, and even at the level of overall economic policy and planning. It should also include the multiplicity of talents developed at work, their variety and complexity, along with the possibility for workers to exert and develop different skills in all sectors of economic activity (e.g. by rotation among many different skills, including executive and political skills; cf. note 11 above). The work capability should even measure the capabilities for discovery, invention and innovation in all sectors.

The UN Declaration mentions the right to "participate in the political process and in cultural life." It is easy to see that the political sphere is decisive for the progress of de-alienation at the level of the whole society. One could say that de-alienation at the level of the material base of production (the world of work) goes hand in hand with the process of de-alienation at the level of the legal, institutional and political superstructure. De-alienation at the political level should imply the acquisition by individuals of the political capabilities necessary for exercising effective decision power at all levels. In a sense, political de-alienation could be seen as the progressive acquisition of self-consciousness by society itself. In this process, every organ, cell, molecule and atom of the social organism formally and effectively participates in the self-regulating process, from different perspectives that, as we saw above, are continuously changing.

How to measure the level of development of the different dimensions of the political capability space, or (what amounts to the same) how to measure the real advancement of democracy in the political system, is a difficult question. Basic measures of political capability should at least be: 1) the capability to advance political ideas, 2) the capability to represent and be represented, and 3) the capability to inform and be informed. Unconstrained flow of information and knowledge within the body politic and the social body in general — the cognitive transparency of the social mind, as to say — counteracts prejudice and uninformed

opinion, ensures coherence between socioeconomic structure and political system, and promotes steady enlargement of the capability space.<sup>17</sup>

The right to participate in cultural life of the UN Declaration can also be specified in a large manifold of different capability dimensions. All the arts, crafts and humanities, and also all forms of corporal development should be included — the development of corporal aptitudes such as plasticity and expressivity goes along with the expansion of body-awareness and intellectual capabilities of creative thought.

The expansion of the social capabilities of mutual caring and belonging, referred to within the third level of Maslow's developmental pyramid of needs/capabilities is, I think, a crucial aspect of the de-alienation process. The thrust of capitalism is to make of every individual an isolated producer and an isolated consumer. Isolated producers, alienated from each-other, form a docile, controllable work-force, from which maximal surplus-value can be extracted. Isolated consumers, under steady systemic conditioning and manipulation by publicity and propaganda, are the ideal type of alienated subjects. The thrust towards de-alienating development should involve the opposite movement, from isolation towards association, involving in particular the expansion of all kinds of associations and social organizations. In this way, the development of social capabilities becomes at same time the development of autonomous, free individuals. Human development is thus at the same time *individuation* or individual realization.

As the other areas of the capability space, the associational or social sphere admits many measurable dimensions. It is possible to measure participation in all kinds of associations or situations in which individuals actively meet without constraint or manipulation, from the neighbourhood and hobby-activity level, to the workplace and branch of activity, to higher levels of political, social, ecological, intellectual, religious, and other, interests.

### **Section XIII.**

The above are but a few observations and conjectures about a few areas of capabilities relevant for human development economics and accounting. Similar reasoning can be applied to the rest of the conceivable capability space. I should like, however, to stop here with the inspection of that space, and to dedicate the rest of this essay to the problems of: 1) metrics (i.e., how to measure capabilities), 2) aggregation (how to form a synthetic measure from the multiplicity of capabilities), 3) structure (how to conceive a matrix of capabilities), and 4) integration (how to incorporate the matrix of capabilities within the framework of the SAM).

It seems to me that for the time being, the most viable way of constructing capability indicators is by way of comparison with a norm. The indicator varies between one (when it is equal to the norm) and zero. Many indicators admit one as the norm (e.g., per cent of population with access to water/sanitation, literacy rate, educational enrolment ratio, contraceptive prevalence). In a preliminary stage of implementation, most indicators could be expressed in the form "percent of the population that *can*..." For instance: "percent of the population that can swim."

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<sup>17</sup> We see here an echo of Doyal and Gough (1991), inspired in turn by the notion of the *ideal speech situation* of the rational polity (see Habermas 1984), in which participants are equals, with similar levels of informational grounding.

In other cases, the indicator could be obtained by comparison with the maximal or optimal level of achievement, locally or internationally (e.g., area of dwelling). This type of indicator should be adjusted for the degree of inequality (e.g. Gini) in the distribution of the attribute. What we are trying to measure is the general, egalitarian achievement of capabilities by individuals. For instance, more square meters of average dwelling area is positive only if not countered by increased inequality in dwelling.

Dozens of such indices — each of them potentially decomposable — may be conceived for every domain of human capability development. Many of them are already being collected by statistical institutes, governmental agencies and other organizations, from the local to the global level.<sup>18</sup>

#### **Section XIV.**

It is very difficult to conceive an *a priori* well founded way of giving different weights to different indicators. This suggests that indicators should have similar levels of relevance. Given similar levels of relevance for all indices, the most direct method of index aggregation is by simply averaging. The simple average of all particular indices would then give the human development indicator for the whole society. It would be analytically interesting to also have different indices for different areas of human achievement (health, work conditions, empowerment, etc).

The idea of averages and indexes for whole societies is appealing for its synthesising power and public impact. It can however be insufficient, and misleading in some cases. However, present day communication and processing capabilities allow in principle for users to access data on line at every level of detail, and to demand virtually any kind of process and presentation.

#### **Section XV.**

Let us now enter the notion of *capability matrix*, and its possible adjunction to the general framework of social accounting. As said before, capabilities can be conceived as being interrelated within a hierarchical structure. Higher level capabilities require the achievement of lower level capabilities — to be able to write a novel, one needs to be able to nourish oneself, to read and write, perhaps to have gone through some higher schooling or writers' workshop, and so on. To “produce” so and so much of novel writing capabilities, you need so and so much of nourishing, reading, writing, training, and so on. That is, we are thinking now of *quantities* of capabilities — not capability indexes — materially expressed in some way, for instance in the number of novels written or published.

Capabilities are thus produced by means of capabilities. In the production of every capability intervenes at least one other capability. Every capability is contributing to the production of at least one other capability. This reminds of the transactions table of input-output and social accounting, in which each column details the amount purchased by the activity sector from the other sectors, and where each file details the sales of the sector to the other activity sectors. In the case of capabilities, this type of table may by analogy be called capability transaction table, or *capability transformation table*.

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<sup>18</sup> One may even speculate about a positive use for the advanced techniques now being employed for surveillance and espionage.

Also as in the input-output framework, it is possible to conceive a matrix of capability coefficients, or *capability matrix*. By analogy with the input-output or technical coefficients matrix, capability matrix  $\aleph$  (an  $n \times n$  matrix) is the matrix of capability coefficients  $\aleph_{ij}$  representing the proportion in which capability  $i$  contributes to the production of capability  $j$ .<sup>19</sup> Column totals are thus equal to one.

By analogy with dynamic input-output analysis, or also with Marxian reproduction theory (Bródy 1970), we can ask about possible balanced capability growth paths. Given the capability matrix  $\aleph$ , we can ask for the capability  $n$ -vector  $x$  and the growth rate  $\lambda$  consistent with  $\aleph$ :

$$\aleph x = \lambda x, \quad (1)$$

that is, we search for a vector  $x$  of capabilities, growing at rate  $\lambda$  (a scalar), and consistent with the proportions inherent in the overall structure of capabilities given by matrix  $\aleph$ . The corresponding *eigenequation* may be expressed as:

$$\lambda x - \aleph x = (\lambda I - \aleph) x = 0, \quad (2)$$

in which  $I$  denotes the identity matrix. The *eigenvalues* of this equation are those values  $\lambda$ , that make the determinant of the matrix  $(\lambda I - \aleph)$  singular.<sup>20</sup> The solution of this equation for  $x$  gives balanced or equilibrium capability proportions that allow for growth in every sector at rate  $\lambda$ .

It is possible that the above reasoning may give rise to some objection. Eq. (1) states necessary conditions for balanced capability growth, but does not include any economic mechanism that may make that growth possible in the first place. This would appear to make capability growth an exogenously determined, unexplained process, as is the case with the neo-classical growth model (in which, within the framework of an aggregate production function, growth is ultimately explained by an exogenously given rate of technological progress).

The realism of the model may be increased, in answer to this objection, incorporating a causal link between growth and investment, as in the dynamic version of the input-output model. The growth of capabilities requires/implies the dedication of a particular kind of capability-increasing capabilities to the production of capabilities. There exist particular types of capabilities (e.g. scientific, technological, cultural, etc.) which are crucial inputs for the growth of other capabilities. These constitute kinds of “capital capabilities,” capable of being accumulated within social institutions, networks, and the like. We can postulate a  $\beth$  (beth)

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<sup>19</sup>  $\aleph$  (aleph) is an appropriate symbol to denote the matrix of capabilities. Since Georg Cantor,  $\aleph$  is associated with infinite sets. One may say that while GDP growth has definite (environmental and other) limits, the possible reach of human capabilities has in principle no limits. It may be worthy of remark that both capabilities and Cantor's transfinite numbers have Spinozan roots. On the Spinozan roots of the idea of human development as capability development, see Buzaglo (2003). On the transfinite, see Ferreirós (1999, p. 130): “Cantor was fond of philosophy and theology, and he was particularly interested in the philosophy of Spinoza, which ascribes a central role to the idea of absolute infinity. This may have been one of the reasons why he showed an interest in expanding the domain of mathematics beyond the infinite.” Capabilities might be the way for economics to approach “Cantor's paradise.” Once we enter, as David Hilbert said, “No one shall be able to drive us from the paradise that Cantor created for us.” (Hilbert 1926, translation quoted from Ferreirós, 1999, p. 365.)

<sup>20</sup>  $\text{Det}(\lambda I - \aleph) = 0$  is an equation of degree  $n$  in  $\lambda$ , with  $n$ , not necessarily distinct, roots, associated with their respective *eigenvectors*. See e.g. “eigenvalues and eigenvectors,” Wikipedia.

matrix, a  $(n \times n)$  matrix whose coefficients indicate the quantity of capability  $i$  which must be invested in capability  $j$  in order to increase capability  $j$  by one unit in the next period.

To introduce the causal equation of capability growth, let us first write the equation of the stationary state of no growth. Capabilities are reproduced at a same constant level when  $\lambda$  in eq. (1) is equal to one:

$$\aleph x = x \quad (3)$$

Now, capability expansion above the stationary level would require investing in the creation of capabilities. To the level of constant capabilities expressed in eq. (3) must be added the amount of capabilities needed to achieve a  $\lambda$  rate of growth:

$$\aleph x + \lambda \beth x = x, \quad (4)$$

in which the expression  $\beth x$  represents the capability-increasing effects of “capability investments.” The new *eigenequation* is thus:

$$[1/\lambda - (1 - \aleph)^{-1} \beth] x = 0 \quad (5)$$

As in the previous case of eq. (2), the solution of eq. (5) for  $x$  gives balanced or equilibrium capability proportions that allow for growth in every sector at rate  $\lambda$ .

The second possible objection to the realism of the above analysis is that uniform, balanced growth in all sectors may per se not be a desideratum. Within certain limits, excess or lack of particular capabilities might be acceptable. This would suggest that in certain circumstances a simulation approach could be adopted. Instead of looking for the general and abstract balanced growth rates inherent in the static and dynamic characteristics of capability structures, a more applicable and policy-oriented model should trace the effects over time of different capability expansion strategies. Different priority structures for capability investment over time would give different capability growth patterns over time. Given initial capabilities and other initial conditions of the economy, given production and distribution structures (including capability matrices), and given the sequence of investment and other policies, such a capability growth model could be solved recursively (simulated) over time. The resulting growth patterns may include (positive and negative) excess capabilities (capability “imports” and “exports”), and also balanced growth — or any other desirable pattern. All this would of course demand a more complete knowledge of the entire socioeconomic structure, of the type provided by the SAM, which is the object of the following section.

## Section XVI.

Now, would it be possible to introduce the above capability accounts within the wider social accounting framework?

The SAM registers transactions in terms of money units, while capability accounts are given in heterogeneous physical units. This is at first sight an insurmountable obstacle. Theoretically, however, it is possible to think about all entries of the SAM not in money terms, but in time units, that is, of social accounts implemented in terms of the labor theory of value. As far as I know, there are no empirical implementations of social accounts in time units.

There is also the additional problem of translating physical capabilities in terms of time used in their acquisition and exertion.

A possible solution could be to include capabilities within the SAM framework without their adding to the entries given in money terms. Let us explain the idea with the help of an example. Table 1 shows how the capability transformation table might be introduced within the framework of the SAM.<sup>21</sup>

**Table 1.** The Capability Table within the SAM framework

	1. Activities	2. Comm- odities	3. Capabilities	4. Private sector	5. Public sector	6. External sector	7. Investment	8. Total
1. Activities		Gross outputs	(Capabilities in produc- tion)					Gross outputs
2. Comm- odities	Inter- mediate demand		(Capability creating outputs)	Private consump- tion	Public consump- tion	Exports	Investment demands	Total demand
3. Capabil- ities			Capability transform- ation table		(Capability creation)	(Capability creation)	(Capability creation)	(Total capabilities)
4. Private sector	Value added		(Capability distribution)		Social transfers			Private sector income
5. Public sector		Sales taxes		Direct taxes		Foreign grants and loans		Public sector income
6. External Sector		Imports	(Capability creation)					Foreign exchange outflow
7. Savings				Private sector savings	Public sector savings	External savings		Total savings
8. Total	Gross outputs	Total supply	(Total capabilities)	Private spending	Public expend- iture	Foreign exchange inflow	Total investment spending	

In addition to the usual rows and columns of the SAM, our example introduces row and column 3, corresponding to capabilities. Capabilities interact with economic accounts for (1) activities, (2) commodities, (4) private sector, (5) public sector, (6) external sector, and (7) investment. The entry in row 3, column 3 is the capability transformation table given in physical units, referred to above.

Being the SAM given in money units, and being row 3 and column 3 given in physical units, this row and column cannot add to the SAM. Row 3 and column 3 are kept in a sense external to the SAM, not adding to the rest of the table (and its figures put in brackets), but providing crucial information from the point of view of human development.

<sup>21</sup> A detailed description and explanation of the SAM accounts can be found, e.g., in Taylor (2004, Ch. 1). A didactic introduction is Breisinger *et al.* (2009). Simplified SAMs with detailed income distribution representations are developed in Buzaglo (1984, Ch. 4) and Buzaglo and Calzadilla (2008), which includes income distributions by income size and social class.

The intersection of the activity row 1 with capability column 3 would describe the level of capability development in the world of work. That is how different production sectors make use and develop the productive and creative capabilities of workers.

- Row 2, column 3 depicts the material inputs, goods and services necessary for the achievement of the attained level of capabilities.
- Row 3, column 5 shows how the public sector contributes to the production of goods and services used in capability production.
- Row 4, column 3 describes the capability levels attained by the different income groups or classes, i.e. the distribution of capabilities.

It would be also possible to include estimations of how much consumption, import and export activities, and particularly, sectoral investments contribute to capability development (rows and columns 4, 6 and 7).

## **Section XVII. Conclusion**

The approach of conventional economics is not a useful tool for describing and understanding human economic behavior. Real world economics — including in it Marxian, Keynesian and structuralist economics — is a better point of departure for understanding existing economic systems, and for assessing their improvement. This tradition was instrumental in developing the framework of social accounting, with a focus on the distribution of income among the different social classes.

The classical focus on distribution was lost in the ulterior development of social accounting, which concentrated on national might instead, and was directed toward formulating national income accounts in a way useful to war financing.

The approach of human development accounting should be totally different from the approach of national accounting. Human development accounting should not try to correct or adjust in different ways the measures of national might. Human development accounting should have a totally different and more ambitious orientation. Human development accounting should reflect *human flourishing*, the flourishing of individuals and societies.

Human flourishing, the all-round development of individuals, can be understood as the process of expanding moral strength. Moral strength, fortitude and generosity are built by exploring, exercising and strengthening every dimension of the human endeavour, i.e. every *capability*. Individuals with developed personalities are (morally) strong individuals, able to naturally function and flourish in an environment of expanded commons — a society of equals, largely based on common management and common ownership.

A first inspection of the space of capabilities can start with basic capabilities, that is, capabilities to satisfy basic needs. Several of the most basic capabilities are human rights sanctioned by the UN.

Needs and capabilities can be seen as forming a hierarchy, in which some (more basic) capabilities are necessary for the achievement of (less basic) capabilities. This can be represented by means of a matricial structure, an  $\aleph$  capability matrix, with inherent potential rates of growth and implicit capability proportions for balanced growth.

It is possible to incorporate, albeit somewhat artificially, the capability transformation table within the standard framework of the social accounting matrix (SAM). This allows for computing important information, such as capability exertion at work, sectoral outputs and public services necessary for capability production, and capability levels attained by the different income groups and classes, i.e. the distribution of capabilities.

## References

Baumol, W., 2000, "Leontief's Great Leap Forward: Beyond Quesnay, Marx and von Bortkiewicz," *Economic Systems Research* 12, 141-52.

Blackwell, K., 1985, *The Spinozistic ethics of Bertrand Russell*, Allen & Unwin, London.

Borneman, E. (ed.), 1976, *The psychoanalysis of money*, Urizen Books, New York.

Bortkiewicz, L.v., 1998 [1907], "On the Correction of Marx's Fundamental Theoretical Construction in the Third Volume of *Capital*," in H. Kurz, E. Dietzenbacher and Ch. Lager (eds.), *Input-Output Analysis*, Elgar, Cheltenham/Northampton.

Breisinger, C., M. Thomas and J. Thurlow, 2009, *Social accounting matrices and multiplier analysis: An introduction with exercises*, International Food Policy Research Institute, Washington.

Bródy, A., 1970, *Proportions, Prices and Planning. A Mathematical Restatement of the Labour Theory of Value*, North-Holland, Amsterdam.

Buzaglo, J., 1984, *Planning the Mexican Economy: Alternative Development Strategies*, Croom Helm, London/ St. Martins Press, New York.

Buzaglo, J., 2003, "Capabilities: From Spinoza to Sen and Beyond. Part I: Spinoza's Theory of Capabilities," *Post Autistic Economic Review*, Issue no. 20. "Part II: A Spinoza-Sen Economics Research Program," *Post Autistic Economic Review*, Issue no. 21. Reprinted in: E. Fullbrooke (ed.), 2007, *Real world economics: a post-autistic economics reader*, London, Anthem.

Buzaglo, J. and A. Calzadilla, 2008, "Simulating extended reproduction: Poverty reduction and class dynamics in Bolivia," Conference on Developing Quantitative Marxism, University of Bristol. (<http://www.paecon.net/workingpapers/BuzagloCalzadilla.pdf>)

Davies, R.W. and S. Wheatcroft (eds.), 1985, *Materials for a Balance of the National Economy of the USSR for 1928-1930*, Cambridge University Press, Cambridge.

Doyal, L. and I. Gough, 1991, *A Theory of Human Need*, Macmillan, Basingstoke.

Ferreirós, J., 1999, *Labyrinth of Thought. A History of Set Theory and Its Role in Modern Mathematics*, Birkhäuser Verlag, Basel.

Habermas, J., 1984, *The Theory of Communicative Action*, Polity Press, Cambridge.

Hilbert, D., 1926, "Über das Unendliche," *Mathematische Annalen* 95, 367-92.

Jasny, N., 1972, *Soviet economists of the twenties. Names to be remembered*, Cambridge University Press, Cambridge.

Kahneman, D., 2012, *Thinking, Fast and Slow*, Penguin, London.

Kurz, H.D. and N. Salvadori, 2000, "Classical Roots of Input-Output Analysis: A Short Account of its Long Prehistory," *Economic Systems Research* 12, 153-79.

Kuznets, S., 1942, "Uses of National Income in Peace and War," Occasional Paper 6, National Bureau of Economic Research, New York.

Lange, O., 1969, *Theory of Reproduction and Accumulation*, Pergamon, Oxford.

Leontief, W., 1964 [1925], "The Balance of the Economy of the USSR," in: N. Spulber (ed.), *Foundations of Soviet Strategy for Economic Growth*, Indiana University Press, Bloomington, Indiana.

Marx, K., 1968 [1863], *Theories of Surplus Value*, Progress Publishers, Moscow /Lawrence & Wishart, London.

Marx, K., 2004 [1844], "Economic and Philosophical Manuscripts" (transl. T. B. Bottomore), in: E. Fromm, *Marx's Concept of Man*, Continuum, London.

Marx, K. and F. Engels, 1976 [1845-1846], *The German Ideology*, vol. 5 in: *Marx-Engels Collected Works*, Progress Publishers, Moscow /Lawrence & Wishart, London.

Maslow, A., 1954, *Motivation and personality*, Harper, New York.

Nussbaum, M., 2011, *Creating capabilities: the human development approach*, Harvard University Press, Cambridge, Mass.

Petty, W., 1899 [1662], *The Economic Writings of Sir William Petty*, vol. 1, Cambridge University Press, Cambridge.

Robinson, J., 1976, "Michal Kalecki: A Neglected Prophet," *The New York Review of Books*, March 4.

Sen, A., 1985, *Commodities and Capabilities*, Oxford University Press, Oxford.

Sen, A., 1988, "The Concept of Development," in H. Chenery and T.N. Srinivasan (eds.), *Handbook of Development Economics – Volume I*, North Holland, Amsterdam.

Spulber, N. and K. Dadkhah, 1975, "The Pioneering Stage in Input-Output Economics: The Soviet National Economic Balance 1923-24, After Fifty Years," *The Review of Economics and Statistics* 57, 27-34.

Stone, R., 1986, "Nobel Memorial Lecture 1984: The Accounts of Society," *Journal of Applied Econometrics* 1, 5-28.

Taylor, L., 2004, *Reconstructing Macroeconomics: Structuralist Proposals and Critiques of the Mainstream*, Harvard University Press, Cambridge, Mass. and London.

UK, 1941, *An Analysis of the Sources of War Finance and an Estimate of the National Income and Expenditure in 1938 and 1940*, H.M.S.O., London.

UNDP (United Nations Development Programme), 1990, *Human Development Report 1990 - Concept and Measurement of Human Development*, New York.

University of Cambridge, Department of Applied Economics, 1962-1972, *A programme for growth*, 12 vols., Chapman and Hall, London.

**Author contact:** [j.buzaglo@telia.com](mailto:j.buzaglo@telia.com)

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**SUGGESTED CITATION:**

Jorge Buzaglo, "The  $\aleph$  capability matrix: some observations on GDP and the economics of human development", *real-world economics review*, issue no. 66, 13 January 2014, pp. 109-126,  
<http://www.paecon.net/PAEReview/issue66/Buzaglo66.pdf>

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## Open access vs academic power

C.P. Chandrasekhar [Jawaharlal Nehru University, India]

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That the United States and its European allies dominate the world of knowledge, is unquestionable. This is reflected in indicators of academic “output”. According to the National Science Foundation of the United States, the US accounted for 26% of the world's total Science & Engineering (S&E) articles published in 2009 and the European Union for 32%. In 2010, the US share in total citations of S&E articles stood at 36% and the EU's share at 33%, whereas that of Japan and China remained at 6% each.

This domination comes from two, among other, sources. First, leadership in spending. Despite the growing importance of Asia (especially China), the United States remained the largest single R&D-performing country in 2009, accounting for about 31% of the global total. The European Union accounted for 23%. Second, the ability to attract the world's best talent. The foreign-born share of U.S. S&E doctorate holders in US academia increased from 12% in 1973 to nearly 25% in 2008, and nearly half (46%) of post-doc positions in 2008 were held by foreign-born US S&E doctorate holders. A dominant share of these came from China and India. A similar trend holds in the social sciences, though exact data are not available.

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There are a number of collateral consequences of these trends. One is what Jean-Claude Guedon calls the “structuring of power” in science, with the most powerful institutions and journals being based in the US and Europe and having international reach. These institutions set the agenda and the standards for science. As a corollary, publishing in those journals with their high impact factors is becoming a marker of academic standing even in the less developed countries of the periphery. For younger scholars, obtaining a Ph.D. from abroad and publishing in international journals has become a prerequisite for obtaining jobs in the best universities even in developing countries.

There are a number of adverse consequences that this can have. In the sciences, for example, one consequence is that the research pursued in leading institutions in developing countries tails that in the developed world. As a result there emerges a disjunction between science and production in these countries because, while science seeks to keep pace with the developed countries, production does not, since much of the economy remains “informal”. Or, as happens in the pharmaceuticals industry, there is a lack of correspondence between the drugs being researched and developed (under international influence over priorities) and the disease pattern that prevails in these countries.

In the social sciences the problem can be more severe. North Atlantic domination often destroys plurality. In economics for example, the resulting domination of neoliberal theory with its rhetoric of market fundamentalism, in which the market or ostensibly “free economic exchange” is presented as the most efficient mechanism to work the economic system, paves the way for policy that permits the increasingly unfettered functioning of private capital, both domestic and foreign. Markets are not benign, and the extent, nature and consequences of growth tend to be adverse. Such policies are pursued even when in the developed countries the state intervenes to restrain markets and supplement them. In practice, this amounts to recommending that developing countries should do as developed country governments say, and not as those governments actually do.

It is in this background that the relevance of the [Open Access](#) (OA) movement for the developing countries needs to be addressed. That movement tries to undermine the control exerted by the corporate sector over the distribution and sharing of knowledge, especially peer-reviewed scholarly research published in journals, generated largely with financial support from the state. A leading example of the movement is the [Public Library of Science](#) (PLOS), launched in 2000 with a letter that urged scientific and medical publishers to make research literature available for distribution through free online public archives, such as the U.S. National Library of Medicine’s PubMed Central. Nearly 34,000 scientists from 180 nations signed the letter, and the movement gained momentum when in 2003 PLOS launched itself as a publisher. More recently, the OA movement grew more targeted. In early 2012, 3000 leading academics signed what is known as the “[Cost of Knowledge](#)” petition, which declared their intention to boycott publishing in, refereeing for or serving on the editorial board of journals published by Elsevier, because it charges “exorbitantly high” prices for its journals and adopts indefensible trade practices like selling only “bundles” to libraries that include many unwanted journals.

Such corporate behaviour is, of course, geared to maximising profit. Some journals cost thousands not tens or hundreds of dollars. To defend such pricing, the academic publishing industry imposes barriers such as copyright restrictions and distribution limitations on authors, and constructs pay walls in the form of subscriptions, licensing fees or pay-per-view rules for users. This restricts the sharing of knowledge and discriminates against those endowed with less resources than their peers in developed societies and richer institutions. It also results in the inefficiencies associated with journal publishing in the closed access world with long waiting times, publishing queues and delayed access, even at a cost.

Open access uses the digital, online, free-of-charge model to disseminate peer-reviewed research and is in that sense hugely efficient and cost effective. It is also democratising. Those remotely located and without the resources to buy access to journal bundles, online sources or journal archives, can now have access to it. Without printing, the publishing time even with peer review is considerably shortened. Since costs of production are minimal for online journals the number of journals are far more than earlier, so that publishing queues and waiting times for publication shrink. More academics and their output are able to obtain a platform to disseminate their research. Realising the popularity of this mode of dissemination, the academic publishing industry is responding by changing its model. Instead of covering costs and earning hefty profits with individual submission fees and subscription charges, they are persuading universities and research institutions to pay for the cost of having the work of their staff peer reviewed, edited and distributed either in print or online. The goal remains the same: not better science, but a large profit.

Seen in this background, open access is indeed democratising. But only partially. Open access only helps democratise the distribution of peer-reviewed research. It does not democratise research activity itself, nor does it transform the peer review system, which for different reasons appears weighted in favour of a self-selecting elite. The issue to be addressed is whether OA would rid the system of journal branding and journal hierarchies. A journal's "brand value" is created, in the first instance, by the fact that a group of academics leading a particular discipline establish or endorse the journal, and sometimes referee its contents. Given the credibility the journal carries, it is read by those who want to publish in it. They adopt the themes privileged by the journal and the articles published in it are cited as points of departure.

This process is given a "scientific" flavor with the use of metrics like the citation index for articles and authors and the impact factor for journals. The impact factor measures the influence of a journal by the number of times work appearing in it was cited by others. A high impact factor leads to higher readership and makes the journal a must for all libraries. There are a number of obvious problems with this sequence. Popularity is not necessarily an index of quality. Self-referential research may deliver high citations but suppress originality, novelty and plurality. Citation does not guarantee readership, with one study finding that those citing works had not actually read as much as 80 per cent of them. The need to please potential reviewers may lead to indiscriminate citation. A "reputation" and high impact increases the reach of journals, feeding citation further.

It is this branding of journals, which allows a few to be identified as the best that need to be acquired by all librarians, that allows a private publisher controlling that journal to charge exorbitant prices and earn huge profits. But brands are not created by publishers but by academics who need journal rankings to separate out "better" publications and authors from the rest. Journal rankings are used by those who award grants and appoint staff, but don't have the time or ability to themselves rate the work of applicants in increasingly specialized disciplines. So, given the structure of branding, it is unlikely that good work published in a relatively new open access journal would stand comparison with indifferent work published in a well established journal.

Further, if journal hierarchy is created by academics, then open access may aggravate rather than reduce the problem. With more readers now able to easily access recognised journals, their readership and citation could go up, leading to a further privileging of those who obtain publishing access to those journals, rather than just readership-access to them. The former may be influenced by a host of factors such as the location of the author in terms of country and university, kind of questions raised and works cited, as opposed to some abstract indicator of quality. What is more there is strong evidence of confirmatory bias, or a tendency to rate better research that supports the views of the referee. As a result, there is little inter-referee agreement either on which articles deserve publishing or on how good an article is.

Such problems notwithstanding, peer review and journal publication gain importance because of a feature that is central to higher education under capitalism: the underfunding of education in the aggregate and the differential distribution of that funding across universities and departments. In time these inadequacies are justified in terms of having to create and promote a meritocracy in order to generate and award good science and knowledge. The worst form this takes is the metric-based evaluation system of universities

and their research to decide on funding. That credentialist system that helps allocate “scarce resources” is based on journal ranking and publication.

Peer review is, in fact, given a credentialist role despite much evidence that the system can fail. This is partly illustrated by the growing evidence of retraction, or the reversal of the stamp of approval provided by leading journals that publish refereed articles. University of Regensburg Professor Björn Brembs extrapolates on the basis of articles published in a large database of thousands of medical journals, that given the rising rate of retraction, it is likely that by 2045 as many journal articles will be retracted as are being freshly published. He attributes this to the rewards system that makes choices on which journals to subscribe to and on which to privilege when making hiring and research granting decisions based on the citations index. This puts pressure on those publishing to undertake their research keeping the citation prospect in mind. In the race to find a space in these journals, marketing of research rather than good science is the winner. One result is the high rate of retraction.

This is not a problem only in the science domain. That problem gets worse in the social sciences as the system is in many areas captured and used to privilege system-legitimizing knowledge rather than pluralism. Hence the question as to why there was little “acclaimed” research in economics that foresaw or predicted the crisis of 2008. Unfortunately rankings have their impact not only on what is read but where scholars from developing countries need to publish to win academic standing. The result would be the skewing of academic research in these countries with grave consequences. That is a problem that Open Access perhaps cannot address. It is not clear what will.

**Author contact:** [cpc@mail.jnu.ac.in](mailto:cpc@mail.jnu.ac.in)

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**SUGGESTED CITATION:**

C.P. Chandrasekhar, “Open access vs academic power”, *real-world economics review*, issue no. 66, 13 January 2014, pp. 127-130, <http://www.paecon.net/PAERReview/issue66/Chandrasekhar66.pdf>

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## New Paradigm Economics versus Old Paradigm Economics

### Interview with Edward Fullbrook

Conducted by [Paul Rosenberg](#), 29 October 2013

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#### Introductory questions

You've presented a 10-point list "[New Paradigm Economics](#)" in the latest *Real World Economics Review* comparing "Old paradigm economics (OPE)" and "New paradigm economics (NPE)". Before getting into the list itself, I'd like to ask a few introductory questions.

(A)

(A) Most non-economists have only heard of Keynesian economics, perhaps as opposed to Austrian policies, or about the "freshwater" vs. "saltwater" schools. How does the old paradigm/new paradigm distinction you're drawing compare to those other ones?

The old/paradigm / new paradigm distinction is fundamentally different from the "freshwater vs. saltwater" one. The latter refers merely to two branches of neoclassical or mainstream economics, the purist wing, "freshwater", and the not so purist, "saltwater". Paul Krugman, for example, is a leader of the saltwater wing, and says "I consider myself a proud neoclassicist". (<http://web.mit.edu/krugman/www/evolute.html>) As Krugman explains, this means he is only prepared to look at economies through a version of the 19<sup>th</sup> century equilibrium and maximization conceptual framework into which a few ideas from Keynes have been able to be fitted. This makes Krugman an *Old Paradigm economist*.

(B)

(B) What are the origins of the two paradigms?

The answer to this question has two interlaced dimensions. There are the economic ideas or theories themselves and there are the ideas about how science should be conducted.

The origin of the basic ideas of *Old Paradigm Economics* come primarily from two mid-19<sup>th</sup> century economists, William Stanley Jevons and Léon Walras, both with a background in the physical sciences. Their project was to fashion a *determinate* and *micro-reductive* model of the economic universe in the image of Newtonian mechanics, one in which economic agents could be treated as if they were particles obeying mechanical laws, and all of whose behaviour could, in principle, be described simultaneously by a solvable system of equations. This narrative required the treatment of human desires as fundamental data, which, like the masses of physical bodies in classical mechanics, are not affected by the relations being modelled. This became the grand narrative of economic theory and accounts for all the mechanical analogies and metaphors that have come to dominate Economics 101.

Following the colossal success of the Newtonian Revolution, its metaphysics, for example determinism and reductive explanation, came to be regarded as the standard and required procedures of the natural sciences. It was not until the mid-19<sup>th</sup> century that this dogmatism came under sustained attack. And thank goodness it did, because without its abandonment most of what we think of as modern science – electro-magnetic theory, evolutionary biology,

the theory of relativity and micro physics – would not exist. These sciences admit indeterminacy and/or non-micro-reductive explanations, for example field-based theories rather than particle-based ones.

This pluralist revolution in the natural sciences did **not** mean the abandonment of the Newtonian approach. Instead it meant that it was no longer held to be the only legitimate approach. This conversion to pluralism in the natural sciences meant that the work of Darwin, Maxwell, Boltzmann, Hertz, Einstein, Born, Bohr, Heisenberg, Fermi, Feynman and all the others came to be recognized as science, incorporated into educational curricula and thereby subsequently utilized by society. Meanwhile many leading natural scientists, physicists especially, wrote about the imperative need for pluralism and how every theory, no matter how marvelous, is never more than a window on reality.

But in economics this methodological revolution, which triumphed decisively in physics over a century ago, has yet to win through. *New Paradigm Economics* is about bringing such a revolution to economics, and thereby legitimatizing and utilizing the reservoir of good work – and it is vast and growing at an increasing rate – done by economists who do not always, and in some cases never, look at economic reality through the neoclassical window.

**(C)**

(C) With the evident failure of standard economics in foreseeing the financial crises and the resulting global recession, (i) Why haven't we heard more about alternatives? and (ii) How can we benefit from them?

**(i)**

We have not heard more about alternatives because of sociological and financial factors.

Half a century ago there began in the United States and then elsewhere a purge of non-neoclassical economists from university economics departments. Economists who revealed that they were not true-believers were not hired, tenured or promoted. The profession had not always been so monist. Early in the last century an Institutionalist was elected president of the American Economic Association and following WWII real Keynesians were tolerated and often listened to. But from 1970 onwards non-neoclassical economists were increasingly purged from the profession, and those who survived or snuck through were studiously ignored. In the case of economics departments at elite universities the purge rate of heretics was very nearly 100%. And it is primarily to elite universities and also their economists hired by banks that the media turn for “expert” commentary on economic issues. Hence the public has heard very little about how economies look when viewed through non-neoclassical windows.

**(ii)**

Nonetheless thousands of non-neoclassical economists remained in the shadows and in recent years, especially as the willingness of countries to have their intellectual life vetted by elite US universities declines, their numbers have been increasing. So how can we benefit from the alternative insights that they offer?

Until recently non-neoclassical economists contributed to their own demise. Rather than embracing the epistemological pluralism of the natural sciences, they remained divided into separate “schools”, rather like Protestant sects, each with their own institutions, hierarchies and “sacred” texts, and each in the main, like neoclassical economists, with the belief that

one window, theirs, on economic reality was all humankind needed. Their shared quarrel with neoclassical economics was their point of connection, rather than *a common agenda for the advancement of economic knowledge*.

But over the past fifteen years this sociological structure has been fundamentally changing, slowly at first, then faster and now, with the founding of the *World Economics Association*, faster still. It is in this context that I recently published "New Paradigm Economics", the idea being that hopefully we are now ready to forgo sectarianism in favour of a shared platform of epistemological and ontological ideas. Because for so long the advancement and availability of economic knowledge has been circumscribed and because in that time the nature of economic reality has changed so much, if economists could begin to come together in a spirit of humility and cooperation, like modern physicists have done, then the benefits to humankind cannot help but be large.

### Questions on the ten points

1

(1) The first distinction you draw is that the old paradigm (OPE) is anti-pluralist (as in classical physics), while the new paradigm (NPE) is pluralist (as in modern physics). Can you give me a concrete example or two that illustrates what this means?

Of the ten points that I listed to distinguish between OPE and NPE, the most important is the first: *monism versus pluralism*. Why? Because it is this choice that sets down the general framework under which the pursuit of knowledge is conducted. And this choice, in terms of its effect on the advancement of knowledge and thereby human welfare, is, as I will illustrate, absolutely enormous.

There is a famous quote from Albert Einstein that points to the reason why for the advancement of science this choice is so critical.

"Whether you can observe a thing or not depends on the theory which you use. It is theory which decides what can be observed."

It just happens that the lead news story today in the UK illustrates Einstein's proposition. It goes like this.

In 2007 a three-year-old British girl was kidnapped in Portugal while on holiday with her parents. The British Metropolitan and Portuguese police have been investigating the case ever since. Until recently their investigation was guided by the theory that the girl had been kidnapped at about 9:15pm.

But the *Guardian* reports:

In the light of what police describe as "a revelation moment," altering six years of thinking about the case, investigating officers now believe Madeleine could have been taken up to 45 minutes later in the evening.

The Chief Inspector explained that this new theory means:

"that from 9.15pm we're able to allow the clock to continue forward. In doing so, things *that were not seen as significant or have not received the same attention are now the centre of our focus*." (my emphasis)

Whereas the 9:15 theory:

“meant the focus was always done and dusted by about quarter past. Now it (the new theory) takes us forward to 10pm.”

And low-and-behold, since 2008 the Met has had in its possession efits compiled by private detectives investigating on the basis of *a different theory*. They are efits of a man seen carrying a child near the scene of the crime at about 10pm. The police are now hopeful not only of finding this man, but also finding Madeleine alive and returning her to her parents.

Many, and probably most, of the wonderful advancements of modern science have, as Einstein and other greats so deeply appreciated, came about in a similar way, that is by altering the “focus” or “theory” or conceptual framework through which a particular realm of the real-world is viewed. Frequently – and this is a key point – new theories are advanced *not* on the basis of challenging existing ones but rather on the hope that using different preconceptions of a given realm (for example 10:00pm versus 9:15) will enable investigators to see new things. In modern physics this had led to the development of major theories pertaining to the same general realm but which differ in terms of their theoretical preconceptions or, if you prefer, axioms. Sometimes these differences are not directly contradictory, but in other cases, including some of great importance, they are.

Should multiple theories, contradictory or not, pertaining to the same realm be allowed and encouraged? Monism says no; pluralism says yes.

Most modern physics would not exist without belief in a pluralism more radical than any ever dreamt by any economist. The conceptual frameworks of its two basic theories for describing the universe, the general theory of relativity and quantum mechanics, not only differ fundamentally, but also *their basic concepts directly contradict each other*.

General relativity conceives of space and time as continuous; quantum theory conceives of them as discontinuous.

General relativity conceives of matter as particulate; quantum theory conceives of it as a wave-particle duality.

General relativity conceives of physical objects as having actual properties; quantum theory describes them as having only potential properties within the given physical situation.

General relativity conceives all physical reality as determinate and all events as in principle having a causal explanation; quantum theory admits indeterminacy and events incapable of causal explanation.

I defy anyone to imagine conceptual differences greater than these. This radical pluralism is physics’ response to the complexity of the object, the universe that they wish to understand. Their wildly divergent methods of approach offer different points of view on that object, like observing Michelangelo’s David from the front and from the rear, thereby revealing different primary dimensions of the physical world.

This of course is not to deny that some physicists, Einstein being one of them, have dreamt of finding a way of reconciling these two great theories. But that is not the point. The point is

modern physics' paradigm of radical pluralism, which has prevailed for a century has enabled an enormous advancement of knowledge. If instead a monism like that of Old Paradigm Economics had been allowed to prevail in physics, the world as we know it today would be very different. Indeed, the IT device on which you have accessed this would not exist.

In the years leading up to 2008 the approaching Global Financial Collapse was not visible through the Old Paradigm Economics window. But in those years a number of economists, including Steve Keen, Nouriel Roubini, Dean Baker, Ann Pettifor, Michael Hudson and Wynne Godley, warned that there would be a GFC if corrective measures were not taken. And their predictions were not off-the-cuff but based on sophisticated analysis. But it was not analysis based on Old Paradigm Economics and therefore, like the efforts of the private investigators of the Madeleine case, was given no attention. In consequence a global disaster that could easily have been avoided took place.

## 2

(2) The second distinction you draw is that OPE "prioritizes mathematical deductivism", while NPE "recognizes that the ontology of much economic phenomena does not fit the requirements of mathematical deductivism".

That's a bit of a mouthful. Could you put it more simply, and then provide a concrete example or two of what this means in practice--and why it matters.

There are two ways to proceed in science, one, look for methods and modes of reasoning that fit the empirical realm being investigated, or, two, make assumptions about the empirical realm so that hypothetically it fits the approach that the investigators favour. The latter approach characterises OPE and the former NPE. Because OPE is based primarily on the maths and modes of reasoning of classical physics, this difference between the two paradigm concerns issues as to whether all economic phenomena is or is not determinant, whether change is or is not always continuous, and whether or not explanations founded in part on structural properties as opposed to only the properties of something's constituent parts should be allowed.

## 3

(3) If I might paraphrase your third distinction, I'd put it like this: OPE begins with a pure mathematical model and defines economic entities in terms of the model--what you call "upside-down science"--while NPE chooses its math based on the phenomena it's studying--"as in both classical and modern physics".

(a) Is that a fair paraphrase? If not, please amend without getting too wonky.

Yes, Paul, that is a fair and very good paraphrase.

(b) Please provide a concrete example or two of what this means in practice.

(c) Why does it matter?

(d) Doesn't this imply that OPE is not really scientific, despite its pretensions to be so?

The way real science works with mathematics is that it identifies processes and structures in the real world and then looks for some mathematics that has the same formal structure as (is “isomorphic” to) the real world phenomena. Sometimes the mathematics that the scientists need does not exist, and they have to wait for it to be invented.

But, alas, not all “science” is real science. And one easy way to give the false impression that something is scientific is to reverse that process by which real science uses mathematics. When this is done it is the math or formalism that determines what structures are going to be *attributed* to the real-world, rather than real-world structures determining what mathematics, if any, are capable of describing them. A concrete example of this was the creation of neoclassical economics. One finds in its foundation texts, namely Jevons and Walras, the doctrine of upside-down science explicitly and prescriptively spelled out. They took the mathematics used by Newton, and proceeded to make assumptions about economic reality that would make it isomorphic to Newton’s math and to the physical realm he was describing. This upside-down science continues to be the primary theoretical framework of OPE.

#### 4

(4) Your fourth point of contrast notes that OPE “assumes markets converge toward equilibrium and that therefore theories should be framed around the concept of equilibrium” while NPE “recognizes the importance of markets that do not converge toward equilibrium and therefore encourages theory and model development not tied to the equilibrium concept.”

(a) What does it mean (in real terms) for markets to converge toward equilibrium vs. not converging? Please give a concrete example of each.

(b) What does this difference mean in terms of theories or models?

(c) Why does it matter? What difference does it make?

Kenneth Arrow, a celebrated OPE economist explains equilibrium as the

specific notion that each [market] relation represents a balance of forces . . . [meaning] that a violation of any one relation sets in motion forces tending to restore the balance . . . [Arrow 1983b, p. 107]

This is a sweeping metaphysical pronouncement. And note its strongly metaphorical language. OPE is committed to building all its models on this equilibrium assumption. This requires that they characterize the elements of an economy in a way that supports their equilibrium commitment; otherwise it is not even hypothetically true. This takes the form of a long list of stipulations regarding the shape and elements of an economy, including pure competition, constant coefficients of production, identical products and methods of production within an industry, perfect markets or instantaneous omniscience, perfect divisibility of goods and no network effects. Some combination of these and other micro conditions must be true before the Equilibrium Hypothesis can even conceivably be true. But when taken together these artificial stipulations close off from view real-world economics. Worse, much worse is that economies, especially today’s, are not structured in ways that makes the equilibrium metaphor relevant. And if you are an economist who can only think about economies in an equilibrium theoretical framework then you will not be able to see (remember Einstein) what is going on in those economies. *You will not even be able to see the approach of the biggest*

*financial collapse in history*. For years and only weeks before it happened leading OP economists publicly proclaimed that there was no problem.

Does this continuing blindness matter? Of course it does. It is, among many other things, the difference between having global financial collapses and not having them.

## 5

(5) Your fifth distinction is that OPE "assumes that when in equilibrium markets have cleared", while MPE "does not presume that equilibrium is a market clearing situation".

(a) What does "market clearing" mean, and why does OPE assume it's connected to equilibrium? (a1) Can you illustrate that with a concrete example?

(b) Why does NPE \*not\* share that assumption?

(b1) Can you illustrate that with a concrete example?

(c) Again, why does it matter? What difference does it make?

A system is said to be in equilibrium if it is in a stable, relatively constant condition. "Market-clearing" means the quantity supplied equals the quantity demanded. OPE generally holds that markets cannot reach equilibrium until they "clear". But throughout the decade of The Great Depression in the USA, although the labour market was stable, there was constant mass unemployment. Even for faith-based economists this caused credibility problems for the market-clearing hypothesis. That is what Keynes' book *The General Theory* was essentially about. It offered a theoretical explanation of how a disaster like the Great Depression could come about, that is of how markets could be in equilibrium but not clear. It also explained how governments could get out of a depression and how they could avoid ever getting into them in the future. Governments around the world applied his ideas, with the result that the half-century following WWII was economically by far the most stable that capitalism has ever known.

## 6

(6) Your sixth distinction is that OPE "assumes economic agents have stable preferences and on average behave in a maximizing manner consistent with the neoclassical definition of 'rational'", while NPE is "interested in real-world agent preferences and behavior, 'rational' or not, and their macro consequences". Let's see if we can't break that down a bit.

It seems to me there are three distinct components: (i) stable preferences, (ii) maximization and (iii) 'rationality' in the neo-classical sense. If not, please correct me, and substitute in the following:

(a) What's a concrete example of a stable preference? And the alternative(s)?

(a1) Why does this distinction matter? What difference does it make?

(a)

A concrete example of a stable preference is that forty years ago I decided, and remain so, that whenever possible I would drink wine with my dinner.

(a1)

As a logical system, neoclassical rationality works by eliminating free choice from its conceptual space. It does so by proceeding on the basis of a temporal separation of the moments of preference ordering and of *what it calls* "choice". It defines rationality as people "choosing" what they *previously* decided or determined they prefer. Rationality requires, says Kenneth Arrow, that the agent's "choices be in conformity with an ordering or a scale of preferences". [Arrow (1952) 1983a, p. 49] "[T]he individual is assumed to choose among the alternatives available that one which is highest on his ranking." [Arrow (1958) 1984b, p. 56] "[R]ational behaviour simply means behaviour in accordance with some ordering of alternatives in terms of relative desirability . . ." [Arrow (1951) 1984a, p. 7] *This approach has no predictive power unless it is assumed that the preferences (i.e. prior choices) do not change over time.* The theory merely freezes an agent's dispositions to choose at some time in the past.

(b) What's a concrete example of maximization? And the alternative(s)?

A concrete example of maximization would be if I continued to order glasses of wine up to but not beyond the point where the pleasure I will derive from the next glass will be less than the pleasure I would derive from spending my money some other way. Not very realistic, perhaps.

(b1) Why does this distinction matter? What difference does it make?

(c) What's a concrete example of neo-classical rationality? And the alternative?

(c1) Why does this distinction matter? What difference does it make?

(b1, c, and c1)

Neoclassical rationality is merely a logical construct rather than having a concrete or empirical basis. It often appears to be otherwise because in the classroom neoclassical economics usually reads its models backwards. This gives the illusion that they show the behaviour of individual economic units determining sets of equilibrium values for markets and for whole economies. It hides from the student the fact that these models of consumer behaviour have been constructed not by investigating the behaviour of individual agents, but rather by analysing the logical requirements of achieving the market-clearing equilibriums that their theory presumes. It is another example of upside-down science. *It is the behaviour found to be consistent with their claims that is prescribed for the individual agents.* Sometimes textbook authors inadvertently call attention to how the "individualist" rabbit really gets into the neoclassical hat. For example, consider the following passage about consumer choice from a widely used introduction to microeconomics.

*For the purpose of our theory, we want the preference ranking to have certain properties, which give it a particular, useful structure. We build these properties up by making a number of assumptions, first about the preference-indifference relation itself, and then about some aspects of the preference ranking to which it gives rise.* [Gravell and Rees 1981, p. 56] [emphasis added]

In other words, it is not the behaviour of the individual agents that determines the model's overall structure, nor even the structure of the preference ranking. *Instead it is the global*

*requirement for a particular structure which dictates the behaviour attributed to the individual agents.*

In a subsistence economy this strange model of consumer behaviour may have some relevance. But in today's affluent and turbulent world where the choice behaviours of individual agents are so interlinked and ever-changing, this OPE models acts as a high opaque wall between its users and economic reality.

(d) Compared to all the other points you raise, this one seems to take aim at the very heart of neo-classical micro-economics, arguably the least questioned heart of conventional economics. And it doesn't just do it the way that relativity and quantum mechanics question Newtonian physics, leaving the great mass of most commonly observed phenomena effectively untouched. To the contrary, it argues that we \*commonly\* see decision-making that doesn't conform to the model. Would you agree?

Yes

## 7

(7) Your seventh distinction is that OPE "assumes atomistic agents and seeks to explain all meso- and macro-economic phenomena in terms of micro phenomena", while NPE "regards agents as social beings, recognizes emergent properties and structures as fundamental to economic reality and thereby the need for a multidimensional ontology". Once again, this seems like a lot in one package, and I'd like to break it down.

OPE assumes that economics agents make their decisions without regard to the decisions of other agents in the same market. For example, it assumes that stock market investors do not take into account whether other investors may soon be buying or selling lots of a security and thereby changing its market value. It also assumes that consumers make their purchasing decisions independently of each other, for example that they are not influenced by fashion or by whether they want to go to a lively disco or an empty one. Why is OPE like this when we all know that economic agents behave not as atomistic entities but rather as social beings? Because OPE modelled itself on Newtonian mechanics. In OPE's theory agents correspond to the atoms of classical mechanics. Therefore, it had to define agents in a way that made their properties, for example their preferences, independent of those of other agents.

(a) First, can you explain the difference between atomistic agents and agents as social beings, using one or more concrete examples?

(b) Second, can you explain the difference between (i) explaining "meso- and macro-economic phenomena in terms of micro phenomena" on the one hand and (ii) recognizing "emergent properties and structures" on the other--also using concret examples.

A good example of this is something we have already touched upon, namely prolonged mass unemployment. If there is excess supply in an individual market, say for iPads, then we can expect that lowering their price will "clear" their market. But if an economy as a whole faces mass unemployment and its general level of wages is decreased the effect, rather than decrease unemployment, is almost certain to be the opposite. Why? *Because at the macro level demand has a different structure than at the micro level.* And, if one is not blinded by OPE, this is easy to see. Lowering wages in one labour market may increase the number of people employed in that market. But if wages are lowered across many markets, then people

on average will have less money to spend on consumption, causing industry at the macro level to cut back on output by laying off still more employees.

(c) Finally, what is meant by "the need for a multidimensional ontology"?

That's sounds worse than it is. All knowledge pursuits begin with assumptions, usually implicit, about *what exists in their realm of inquiry*. You need to assume the existence of things before you can begin to ask questions about them. If you do not assume the existence of X, then no questions can be asked about X. The beginning of the development of modern physics in the mid-19<sup>th</sup> century offers a good example. Under classical mechanics everything was assumed reducible to particles. It turned out that this made the explanation of electricity and magnetism, whose existence Faraday's experiments demonstrated beyond all doubt, impossible. The creation of electro-magnetic theory, initially by Maxwell, required the introduction of a new class of entities, fields. Without the addition of this new dimension to physics' ontology, modern physics as we know it would not exist.

## 8

(8) Your eighth distinction is that OPE "relies on the ergodic axiom, i.e. reduces uncertainty to risk", while NPE "rejects the ergodic axiom, i.e. regards the existence of irreducible uncertainty as a ontological fact that should not be hidden". Please answer in which ever order makes most sense to you:

(a) What is the ergodic axiom, and why is it so important?

(b) what is the difference between uncertainty and risk? (Please use concrete examples a lay audience can grasp.)

One can distinguish between two kinds of risk: that which is possible to calculate through application of probability and that which is not and so is immeasurable. It is the latter kind of risk that is called *uncertainty*.

In order to legitimately draw statistical or probability inferences regarding any universe, it is necessary to draw a sample from that universe. But obviously it is impossible to draw a sample from the future economic universe. The so-called ergodic axiom is the assumption that the economic future is governed by an already existing and unchanging process, so that drawing a sample from the past is the same as drawing one from the future. Frank Knight, the first to make the distinction in the context of economics, put it this way:

Business decisions, for example, deal with situations which are far too unique, generally speaking, for any sort of statistical tabulation to have any value for guidance. The conception of an objectively measurable probability or chance is simply inapplicable.

When economists close their eyes to the existence of uncertainty and advise governments to do likewise, societies are likely to leave themselves open to the disastrous consequences. For example the system of regulation of financial markets put in place after the Crash of 29 to protect against uncertainty was dismantled on the grounds economic uncertainty did not really exist, and we all know the consequences of that.

(c) Post-Keynesians have long stressed that rejecting ergodicity is arguably the central point of Keynesian economics, more fundamental than any of the policy prescriptions that come from

it. Yet many economists who consider themselves Keynesian embrace ergodicity. What does this say about how the OPE/NPE distinction relates to other divisions within economics?

The term “Keynesian” is used in two different ways and these usages relate directly to the OPE/NPE distinction. OPE found that they could take some of Keynes’ ideas and by adding assumptions make them consistent with their neoclassical economics. So there are OPE economists who are “Keynesians” in this very limited and some would say perverted sense. It is rather like calling yourself a democrat if you support one-party elections.

## 9

(9) Your ninth distinction is that OPE “treats the planet (“resources”) as a subset of the economy,” while NPE “treats the economy as a subset of the planet and of its biosphere”. This sounds fairly straightforward. It’s not the least bit technical. So how about an example to show what it means in terms of a real economic policy issue?

Because OPE treats the planet (“resources”) as a subset of the economy, it holds that environmental and ecological decisions should be treated as purely economic decisions, in other words based on market prices. The market puts a price on the future and if it is not high enough to prevent ecological disaster for future generations, then so be it. NPE, on the other hand, treats the preservation of environments and of civilization as ethical obligations.

An example of the difference is that currently an international commission is meeting to consider banning fishing and oil drilling across two million square kilometres of seas around Antarctica, in an attempt to conserve the last pristine ocean. Whereas a decision to do so is completely consistent with the “ecological economics” of NPE, it is hard to imagine it being made under the logic of OPE’s “environmental economics”.

## 10

(10) Your tenth distinction is that OPE “claims the possibility of a normative-positive distinction in a monist context,” while NPE “recognizes that the application of any conceptual framework to a real-world economic situation contains a normative or ideological dimension”. Once again, this sounds like a real mouthful.

(a) How would you explain it to a bright 14-year old?

(b) Why would you tell them it’s important?

Philosophy makes a distinction between normative and positive statements. Normative ones relate directly to human affairs. They make claims about how things ought to be or which things are good or bad, and which actions are right or wrong in a moral sense. Positive statements are purely factual as in “vegetables contain vitamins”.

Social sciences have a fundamentally and inescapably different relationship to their subject matter than do natural sciences that blurs this normative-positive distinction. There are two reasons why this is so.

First, a social-science conceptual system, unlike in the natural sciences, can alter the objects of its enquiry by becoming part of the conceptual and belief apparatus through which humans define themselves, perceive others and make choices, thereby changing the structures and

propensities of the human world. With the spread of mass higher education, this phenomenon becomes more common, pervasive and profound.

Second, unlike the natural sciences, social sciences and economics especially are ultimately a means from on high of preserving or reconstructing the basic realities that they study. Different theoretical approaches to economics present different sets of choices, real or imagined, to be chosen and acted upon by human populations at large. It can never be the case that each of these sets of choices will equally favour every group in society or every set of values. This means that it is the intrinsic nature of every approach to economic theory to favour some groups in society over others.

Consequently any attempt to block enquiry and analysis from multiple theoretical perspectives is heavily loaded with normative implications, and in effect is an ideological move.

## Conclusion

Now that we've been through this whole list, is there anything more you'd like to add by way of summing up? Anything about how non-economists can use this information to get better information from economists, perhaps? Or about how we should change the way we use economic information or arguments in framing social policy? Anything you'd like to say, really. Whatever seems most fitting as a concluding point or set of points.

Form the 1960s onwards there was a movement spreading outwards from the United States to cleanse economics departments of economists who in some way did not concur with the neoclassical orthodoxy. Because, as with Ptolemaic astronomy, there are a great many failings in that orthodoxy or what I am calling Old Paradigm Economics, there were many ways in which an economist might take issue with it and thereby be ostracized. And naturally around these various grounds for difference, economists tended to group, each becoming a separate "school", each professionally defined on the basis of their particular difference with orthodoxy, and each with members dependent on moral support from the group, and in many cases successful at establishing on the margins an institutional footing where they could at least survive professionally.

This definitional subservience to OPE was so extreme that all these various "schools" collectively became known, and willingly so, as "heterodox economists". This is understandable because the basis of each school's deviance from OPE was different, and so there was no immediately obvious basis for their association other than their "heterodox" status. But of course so long as each heterodoxy went its own way instead of coming together to offer a new paradigm there was no possibility, even in a million years, of displacing the OPE and thereby liberating humankind from its increasingly pernicious effects.

There are two ways for non-OPE economists to look at that impasse. One is that it doesn't really matter so long as their school maintains its marginal institutional footing. The other way to look at it is that it matters enormously to humanity, witness the Global Financial Crash, and more so every year as economic reality evolves. Beginning roughly fifteen years ago this second way of looking at the impasse began to become more common and even to actively motivate some non-OPE economists to at least think about the possibility of liberating economics from the OPE regime. This movement gathered steam as economists gradually became aware that theoretical pluralism was an essential part of the paradigm upon which

modern physics was built. This realization pointed to the possibility of doing something similar for economics. The *Real-World Economics Review* was and is part of that movement. I founded it with the idea not of promoting a particular school or even a group of them, but rather with the idea of providing and promoting a diverse range of windows on economic reality, and with the hope that the journal's readers would look at that reality through more than one window.

This was an idea whose time had arrived. The journal now has over 23,000 subscribers, probably more than any other academic economics journal, and a very high download rate of its papers. More important there is a growing optimism, a belief even, especially among younger economists, in the possibility of, rather than merely offering passive resistance at the margins, of fundamentally reforming the economics profession, of making the pursuit of knowledge rather than the preservation of traditional beliefs, professional hierarchies and economic interest groups its *raison d'être*. Two and a half years ago the World Economics Association was formed to create institutional focus for this goal. Already with nearly 13,000 members it is second in size only to the American Economic Association.

The OPE – NPE distinction with their respective lists is a natural outgrowth of these developments. As a RWER editor I have had prolonged first-hand familiarity with a broad spectrum of non-OPE economics. Over the years it became apparent that there were numerous substantive and methodological points that both in the main held across that spectrum and that contradicted OPE. My little paper “New Paradigm Economics” is merely their compilation.

Because economists shape both economic policy and public opinion, the ensuing struggle for dominance between OPE and NPE is, without exaggeration, of great importance to humanity's well-being. Fifteen years ago that struggle had yet to be imagined. But now there is reason to hope that the new optimism, especially of the younger New Paradigm economists, will in the next fifteen years win through.

**Contact:** [edward.fullbrook@btinternet.com](mailto:edward.fullbrook@btinternet.com)

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**SUGGESTED CITATION:**

New Paradigm Economics versus Old Paradigm Economics

Interview with Edward Fullbrook, Conducted by Paul Rosenberg”, *real-world economics review*, issue no. 66, 13 January 2014, pp. 131-143, <http://www.paecon.net/PAERreview/issue66/Fullbrook66.pdf>

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Book review

**Heikki Patomäki, *The Great Eurozone Disaster:***

***From Crisis to Global New Deal*** (London & New York: Zed Books, 2012) (co-transl. James O'Connor & Heikki Patomäki)

Magnus Ryner [King's College, London]

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The Eurozone (EZ)-Crisis arrived without virtually any warning from mainstream social science. Economists and political sociologists, working with highly idealised conceptions of 'integration', celebrated the Single Market and would, because of a priori conceptions, not attend to the generative mechanisms behind the crisis (Ryner, 2012). Drawing on a concoction consisting of the efficient market hypothesis, endogenous optimum currency area theory, and the theory of sound money – all of which in one way or another can be reduced to the deracinated neoclassical theoretical version of comparative advantage (e.g. Balassa, 1962) – mainstream economics had announced the 'end of the 'Feldstein-Horioka Puzzle' in the Eurozone (Blanchard & Giavazzi, 2003). Consequently, deficits in southern Europe was no cause of concern, presumably because liberalised financial markets were facilitating business fixed investments in vanguard industries (as opposed to, as it turned out, speculative ventures in real estate). With their Kantian dispositions, political sociologists were prone to defer to the economists, and even 'pessimistic' intergovernmentalists declared the post-Maastricht architecture a stable and 'mature' constellation (Moravcsik, 2003).

Anyone interested in understanding the causes and possible remedies of the EZ-crisis is therefore well-advised to instead turn to the promising and growing body of heterodox and critical works in economics and political economy, some of which even can make a claim to have predicted the crisis (e.g. Stockhammer, 2008). The different strands of this body of research draw, in different ways, attention to the sources of the EZ-crisis in contradictory and integral relations between production and power. We learn from this literature that increased inequalities between social classes (the falling wage-share), and regions (the concentration of high value-added production in the northwestern core of the European economy) cannot be contained within the rigid framework of the EMU. Competitive austerity and the fallacy of composition relate these social inequalities to systemic crisis. It is within this genre that Heikki Patomäki's *The Great Eurozone Disaster* makes a highly original and thought-provoking contribution.

This English translation of *Eurokriisin Anatomia: Mitä Globalisaation Jälkeen?* (Helsinki: Into), which featured on Finnish best-selling lists in 2012, is original, thought-provoking, and therefore highly recommended because of its consistent attempt to break with economism and nationalism. In short, it brings post-Keynesian considerations to global political economy and vice-versa.

The first chapters after the introduction (chapters 2-4) provide an antidote to economism by exposing the tautological reasoning of neoclassical economics (Patomäki is an accomplished commentator on philosophy of science questions [e.g. Wight & Patomäki, 2000]) and by situating the EZ-crisis in the context of American hegemonic decline and the attendant shift in the world economy towards finance-led growth since the 1970s. This period has been characterised by massive global imbalances that have been managed by highly unstable financial mechanisms, with recurrent financial crises being the consequence. Whilst the EZ

has its autonomous logic, it is ultimately part of an exceptionally deep financial crisis that started in US subprime markets in 2008.

If the previous chapters are pedagogically exceptionally well presented ground that will be familiar to many readers, the latter chapters, especially chapters 6 to 8 are the most original and controversial in the book. They form a scenario-painting exercise where Patomäki demonstrates the limits not only of neoliberal solutions (as currently offered by the so-called 'Troika'), but also of nationalist and Euro-Keynesian ones. In essence, the argument is that the imbalances that generated the crisis will prevail and eventually be activated until what Patomäki calls a 'democratic global Keynesianism' has been implemented. This is to be understood as a multileveled system, with considerable local, national and regional autonomy, but also one with substantively beefed up global governance, consisting for instance of global transaction taxes, redistributive mechanisms and a global reserve currency developed out of the embryo of Special Drawing Rights. The latter are not to be managed through inter-state relations alone but should be accountable to a global Parliament.

Anyone who thinks that this sounds utopian must confront Patomäki's argument that any solution at lower level is at best a merely kicking the can ahead a bit before the problems need to be addressed again. He also points to real concrete initiatives tending towards his vision, such as the now oft forgotten Brandt Report. Anyone familiar with debates in global political economy ought to see that there is a deeper socio-political mode of reasoning here. Patomäki is at least implicitly invoking World Systems Theory (WST) (e.g. Wallerstein, 1974; Chase-Dunn, 1999) for whom the separation of a globally integrated world-economy from a system of nationally segmented nation states is constitutive of an exploitative world system. Emancipation is only possible when this separation is overcome and political forms operate at the same level as economic forms. For WST, the abstract potential for such governance is latent in common ethical norms of world religions, and responses of crises and injustices generated by economic integration progressively give these norms ever more concrete form. It is against this backdrop that we must see the massively increased density of global governance of the last 100 years. Patomäki also does make the case, that increased density in communication has progressively improved the prospects for such cosmopolitan subjectivity.

The question is, though, whether his argument does not rely too much on idealised conceptions of communication that is part of the problem in the first place. It is a bit too close to comfort to the neo-functionalist notion of spillover of mainstream integration theory. If spillover worked, we would now be seeing interest groups and political parties demanding a pro-European solution through the EP. Instead, we are experiencing increased nationalist parochialisms and xenophobia. Commodified mass communication is above all trading in stereotyped tropes that feed on these. These are not propitious conditions for a European, let alone Global, demos. It is not that Patomäki isn't aware of the need to ground scenarios in the potential of real developments nor that he is not aware of the obstacles that nationalism poses. But arguably like in so much International Relations literature, the shadow of Mitrany (1944) looms large and assumptions are made about the integrative quality of communication as such.

There are no easy solutions, however, and if Patomäki's own case for the 'realism' of democratic global Keynesianism leaves many questions unanswered, his book is highly recommended for challenging the limits of any less ambitious solutions as well as for the sheer scale of his vision.

## References

- Balassa, Bela (1962) *The Theory of Economic Integration* (London: Allen & Unwin).
- Blanchard, Olivier & Francesco Giavazzi (2003) 'Current account deficits in the Euro area: The end of the Feldstein-Horioka Puzzle?', MIT Department of Economics Working Paper 03-05.
- Chase-Dunn, Christopher (1999) 'Globalization: A World Systems Perspective,' *Journal of World Systems Research* 5 (2), pp. 187-215.
- Mitrany, David (1944) *A Working Peace System* (Oxford: Oxford University Press).
- Moravcsik, Andrew (2003) 'What Can We Learn from the Collapse of the European Constitutional Project?', *Politische Vierteljahresschrift* 47 (2), pp. 219-41.
- Ryner, Magnus (2012) 'Orthodoxy, Heterodoxy and the Production of Knowledge about the EU,' *Millennium: Journal of International Studies* 40 (3), pp. 647-73.
- Stockhammer, Engelbert (2008) 'Some Stylized Facts on the Finance-Dominated Accumulation Regime,' *Competition and Change* 12 (2), pp. 184-202.
- Wallerstein, Immanuel (1974) 'The Rise and the Future Demise of the World Capitalist System,' *Comparative Studies in Society and History* 16 (4), pp. 387-415.
- Wight, Colin & Heikki Patomäki (2000) 'After Postpositivism: The Promise of Critical Realism,' *International Studies Quarterly* 44, pp. 213-37.

**Author contact:** [magnus.ryner@kcl.ac.uk](mailto:magnus.ryner@kcl.ac.uk)

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### SUGGESTED CITATION:

Magnus Ryner, "Book review: Heikki Patomäki, *The Great Eurozone Disaster: From Crisis to Global New Deal*", *real-world economics review*, issue no. 66, 13 January 2014, pp. 144-146,  
<http://www.paecon.net/PAEReview/issue66/Ryner66.pdf>

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## Putting money where “goodwill is” – comment on Thomas

Mayer, “[A Copernican Turn in Banking Union](#)”, RWER, issue no.65, pp.44-50

Romar Correa [University of Mumbai, India]

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It is one thing to pray for a renaissance in thinking in monetary matters, quite another to deliver a blueprint for alternative monetary arrangements. Kudos to Thomas Mayer for providing a revolutionary but closely-argued macroeconomic schema for the European Union.

One hundred percent reserve banking, also called narrow banking, harks back to centuries before the Chicago School, Professor Mayer informs us. A well-known propagator was Milton Friedman and, from a completely different perspective, Hyman Minsky embedded the institution in his model for preventing “it” happening again. The serious attention to the proposal despite its origins in competing worldviews I take as support for the vibrancy and complexity of the heterodox economics programme. In the usual format, the innovation goes with “firewalls” separating deposit-issuing banks from financial institutions. Professor Mayer’s banks, on the other hand, have a hierarchy of separate correspondences across sides in their balance sheets. The problem of floor crossing, therefore, remains. It is not clear how safe deposits will not be used to retire risky debt.

Judging by the footnotes, it seems that Professor Mayer’s impulses flow from the Austrian school. It is not difficult, therefore, to note a gap in the reasoning when it comes to Central Banks (CBs hereafter) holding government debt. By so doing, Professor Mayer claims, government money will be unbacked.

We approach the subject from the other end, the stock-flow-consistent macroeconomics pioneered by the late Wynne Godley and developed by scholars at the Jerome Levy Institute, New York. Even otherwise, the following is an important post Keynesian identity.

$$G - T \equiv S - I.$$

In words: the government deficit equals the private sector surplus. It is for the evidence to support the causal arrow flying from the right-hand side to the left through the cycle. In dynamic terms, and with the addition of an equation or two, the relation is the basis for built-in stabilization policy. It is only with the inclusion of behavioural parameters and so-called stock-flow norms that the stability properties of the system can be worked out.

In the simplest case, in the period under consideration a government deficit can be financed by fiat money:

$$\Delta H = G - T$$

In terms of our discussion, the (increment in) high-powered money is backed by the private sector surplus. Finally, banks are required to hold a proportion of their deposits as reserve requirements with the CB. That is,

$$H = \rho M$$

with  $\rho = 1$  in the case of 100% reserve banking. The sparse accounts now are:

Banks

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Assets Liabilities

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$\Delta H \Delta M$

Central Bank

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Assets Liabilities

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$\Delta H \Delta H$

The novel term in the balance sheet of Professor Mayer's CB is "goodwill" in place of  $\Delta H$  as the asset. The item is supposed to move in one direction only. However, it is not difficult to conceive, even independent of the cycle, a shrinkage in the balance sheets across the board, and the corresponding dilution of CB moral capital. For instance, since fees on items on the balance sheets above are implicitly controlled by the government, bank profits will emerge from non-cash operations.

One lesson from Glass-Steagall is that bank managers will look wistfully at the greenbacks on the other side of the regulatory fence. Secondly, customers might be not be attracted by deposits whose rate of return is dominated by other assets. Many claim that commercial banking is dying. Also, Professor Mayer believes that CBs can influence investment activity by changing premia/discounts on deposits. However, we know that bounds of zero or infinity on interest rates are necessary but not sufficient to generate/dampen growth in output and employment. Nowhere is the adage that pulling is different from pushing on a string more applicable than in matters of financial incentives. It is precisely when animal spirits are dim, for instance, that government expenditure of the appropriate scale and quality can ignite activity. Prof Mayer, furthermore, seems to suggest that CBs, through these price (dis)incentives, can move banks (up) down habitats in his balance sheets. Austrians, old and new, would frown at the presumption that organs of government possess the information required to calibrate private sector plans. Indeed, what thought to the motivation of banks to chuck it all up and go off-balance sheet? At the same time, stick, if not carrot, can be applied to government expenditure as well. The CB can decline to monetise deficits that are not the outcome of employment-generating schemes, environmentally-friendly infrastructure projects, and so on. The profession has long moved from regarding  $G$  in the macroeconomic equation as consisting of dead-end activity like digging holes in the ground and then filling them up. Post Keynesians have been writing up portmanteaux of projects not excluding social welfare schemes that have clear employment-generating and multiplier effects.

**Author contact:** [romarcorrea10@gmail.com](mailto:romarcorrea10@gmail.com)

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**SUGGESTED CITATION:**

Romar Correa, "Putting money where "goodwill is" – comment on Thomas Mayer, "A Copernican Turn in Banking Union", RWER, issue no.65, pp.44-5", *real-world economics review*, issue no. 66, 13 January 2014, pp. 148-148, <http://www.paecon.net/PAEReview/issue66/Correa66.pdf>

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