

# SOME ECONOMISTS GOT IT RIGHT

## WHO ARE THESE ECONOMISTS, ANYWAY?

### James K. Galbraith

Photos: Vincent Goutal and Olivia Leriche

*“Of course, there were exceptions to these trends: a few economists challenged the assumption of rational behavior, questioned the belief that financial markets can be trusted and pointed to the long history of financial crises that had devastating economic consequences. But they were swimming against the tide, unable to make much headway against a pervasive and, in retrospect, foolish complacency.”*

*—Paul Krugman, New York Times Magazine, September 6, 2009*

*Amen.*

While normal ecclesiastic practice places this word at the end of the prayer, on this occasion it seems right to put it up front. In two sentences, Professor Paul Krugman, Nobel Laureate in Economics for 2008 and in some ways the leading economist of our time, has summed up the failure of an entire era in economic thought, practice and policy discussion. *“A pervasive and, in retrospect, foolish complacency.”* It would be hard to pen a verdict harsher than that.

And yet, there is something odd about the role of this short paragraph in an essay of over 6,500 words. It’s a throwaway. It leads nowhere. Apart from one other half-sentence, and three passing mentions of one person, it’s the *only* discussion – in the entire essay – of those economists who got it right. They are not named. Their work is not cited. Their story remains untold. Despite having been right on the greatest economic question of a generation, they are *unpersons* in the tale.

This essay provides a survey of the unpersons. Among these, the late great Cambridge economist of Irish origin, Wynne Godley, holds a central place, having deployed his stock-flow-consistent accounting framework far in advance to demonstrate why a crisis would come. Though central, Godley was not unique: there were at least five distinct frameworks within which the dangers could be clearly identified, and at least three of these were developed within the guidelines of well-



developed – though little-known – economic theory.

Krugman’s essay is about two groups, both entrenched at what is believed to be (by themselves) the top of academic economics. Krugman calls them “saltwater” and “freshwater” economists; they tend to call themselves “new classicals” and the “new Keynesians” – although one is not classical and the other is not Keynesian. One might speak of a “Chicago School” and an “MIT School.” In truth there are no precise labels, because the differences are both secondary and obscure.

The two groups share a common perspective, a preference for thinking along similar lines. Krugman describes this well, as a “desire for an all-

encompassing, intellectually elegant approach that also gave economists a chance to show off their mathematical prowess.” Exactly so. It was in part about elegance – and in part about showing off. It was not about the economy. It was not a discussion of problems, risks, dangers, and

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policies. In consequence, the failure was shared by both groups. This is the extraordinary thing. Economics was not riven by a feud between Pangloss and Cassandra. It was all a chummy conversation between Tweedledum and Tweedledee. And if you didn’t think either Tweedle was worth much – well then, you weren’t really an economist, were you? Professor Krugman contends that Tweedledum and Tweedledee “mistook beauty for truth.” The beauty in question was the “vision of capitalism as a perfect or nearly perfect system.” To be sure, the accusation that a scientist – let alone an entire science – was seduced by beauty over truth is fairly damaging. But it’s worth asking, what exactly was beautiful about this idea?

Krugman doesn’t quite say. He does note that the mathematics used to describe the alleged perfection was “impressive-looking” – “gussied up” as he says, “with fancy equations.” It’s a telling choice of words. “Impressive-looking”? “Gussied up”? These are not terms normally used to describe the Venus de Milo.

To be sure, mathematics is beautiful – or it can be. I’m especially fond of the complex geometries generated by simple non-linear systems, and I have used these in social science teaching. A nice example is Benoit Mandelbrot’s application of multi-fractal generators to the behavior of asset prices, showing that big events – financial crises – can be expected far more frequently than one might estimate under a normal distribution. It’s simple, and beautiful. And persuasive. The clumsy algebra of the modern economics journal article is not like this. It’s more like a tedious high school problem set. The purpose one suspects is to intimidate and not to clarify. An idea that would come across as *simple-minded* in ordinary language can be made “impressive-looking” with a sufficient string of Greek symbols. And this is particularly true if the idea – that “capitalism is a perfect or nearly-perfect system” would not withstand the laugh test once stated plainly.

As it happens, the same John Maynard Keynes of whom Krugman speaks highly in his essay, had his own view of the triumph of the economists’ vision – specifically that of the first great apostle of drawing policy conclusions by deductive reasoning from first principles, that of David Ricardo over Thomas Robert Malthus. He wrote:

*“It must have been due to a complex of suitabilities in the doctrine to the environment into which it was projected. That it reached conclusions quite different from what the ordinary uninstructed person would expect added, I suppose, to its intellectual prestige. That its teaching, translated into practice, was austere and often unpalatable, lent it virtue. That it was adapted to carry a vast and*

*logical superstructure, gave it beauty. That it could explain much social injustice and apparent cruelty as an inevitable incident in the scheme of progress, and the attempt to change such things as likely on the whole to do more harm than good, commended it to authority. That it afforded a measure of justification to the free activities of the individual capitalist, attracted to it the support of the dominant social force behind authority.” (Keynes, 1936).*

Note that Keynes did not neglect the element of beauty. But he embedded this point in a much richer tapestry of opportunism, venality, and apologetics. To this day, seduction-by-deduction is known, in some corners of economics at least, as “the Ricardian Vice.”

Keynes also wrote:

*“But although the doctrine itself has remained unquestioned by orthodox economists up to a late date, its signal failure for purposes of scientific prediction has greatly impaired, in the course of time, the prestige of its practitioners. For professional economists... were apparently unmoved by the lack of correspondence between the results of their theory and the facts of observation; – a discrepancy which the ordinary man has not failed to observe...”*

Seventy-five years later the gap between official wisdom and ordinary observation remains as wide as ever. Nothing much changes; and it is interesting to ask, why not?

The reason is not that there is has been no recent work into the nature and causes of financial collapse. Such work exists. But the lines of discourse that take up these questions have been marginalized, shunted to the sidelines within academic economics. Articles that discuss these problems are relegated to secondary journals, even to newsletters and blog posts. The scholars who betray their skepticism by taking an interest in them are discouraged from academic life – or if they remain, they are sent out into the vast diaspora of lesser state universities and liberal arts colleges. Once there, they can be safely ignored.

Let us venture out into the nether wastes of economics, and attempt a brief survey of the main currents that didn’t get it wrong. My method is not comprehensive. It consists of surveying my own habitual reading, augmented by suggestions from a large list of economists – almost none of them in what are called (by themselves) the “top departments.” Many of the examples given below were volunteered, at my request, by their authors or by admirers of those authors. And numerous examples are not cited, for want of space<sup>1</sup>.

As noted earlier, I will offer five categories; the categories are my own invention. Of the first two, one is deep without being (in my view) sufficiently operational, and the other is operational, without being sufficiently deep. The remaining three strike a better balance between theoretical appreciation and practical application. All are, however, a considerable improvement over the supposed mainstream on this question.

1. I pass over the world of business economists, including Nouriel Roubini, whose methods I cannot clearly discern, and Nassim Taleb, whose nihilism in this case seems to me excessive, in suggesting that things cannot be predicted when in fact they were. I also do not deal here with grand theorists, such as Paul Davidson (2003) or Joseph Stiglitz. Both offer general reasons to expect crisis, but less on the specific causes of the present one.



**HABITUAL CASSANDRAS: THE RADICAL THEORY**

For a generation or more – as a relic of the radical movements of the 1960s, at a time when Keynesianism was King – the token dissident tolerated in many economics departments in the US has been a strand of Americanized Marxism, much of it developed in the 1970s at the University of Massachusetts-Amherst, after the radicals (Sam Bowles, Herbert Gintis, and Art MacEwan) were exiled from Harvard.

For this tradition, class struggle and power relations remain at the heart of economic analysis, and crisis is inevitable – sometime – because crisis is in the nature of capitalism. In recent work this analysis has taken on a global dimension, with nations occasionally slipping into the role traditionally performed by class. But the analysis and the outlook remain largely the same.

In 2004 the South African economist **Patrick Bond** summarized the major Marxian crisis arguments as being of two major types: one based on cut-throat competition (Brenner 2003), and another based on the over-accumulation of capital (Wood 2005 and Harvey 2005) with various qualifying views (Arrighi 2003). In his great 2007 work, *Adam Smith in Beijing*, the late Giovanni Arrighi bid to provide a defining account of the shifting patterns and paradigms of global power, and of their financial manifestations. In a paper that gives the financial history in detail, Brenner (2009) recapitulates that the crisis “manifests huge, unresolved problems in the real economy that have been literally papered over by debt for decades, as well as a financial crunch of a depth unseen in the postwar epoch.”

Still, in all of these accounts, they focus on an underlying “real economy” over which the phenomenon of debt is “papered.” This means that the radical tradition does not truly provide a theory of *financial* crisis. It is not about the collapse of markets. Theirs is, rather, an account of power relations – a “crisis of hegemony” in Arrighi’s telling, mainly pitting the United States against East Asia. In this respect, the radicals actually resemble the mainstream: for both groups finance is largely a veil over deeper forces. And thus the specific character of the impending crisis, and the way it might arrive, is not terribly important. Thus, in 2004, the crisis that Patrick Bond anticipated would be set off

by a collapse of the dollar, due to unsustainable US current account deficits and the exhaustion of the American imperial mission in Iraq. This was one crisis that might have happened, but so far has not. Actual events went quite another way: it was the failure of the Iraq war to provide a strong boost to economic growth in the United States that, in part, motivated the aggressive desupervision of housing finance and the rise of the subprime bubble. The government needed a source of growth, and if war could not be made to serve, credit would have to. And when the crisis hit, the dollar rose rather than fell, illustrating the distinction between fragile private financial markets and a sovereign currency backed by an ultra-liquid market in ultra-secure government debt.

**THE PRACTICE OF BUBBLE-DETECTION**

A second perspective seeks to identify financial bubbles – the peculiar indicia of an imminent crash. In contrast to the post-Marxian view, this approach is purely about surface facts. And it builds on a very different epistemological foundation. Where the post-Marxians see a dynamic process leading inevitably to crisis, bubble-detectors look for departures from normal. At some level, their analysis presumes that equilibrium is a possibility.

**Dean Baker** of the Center for Economic Policy Research in Washington is the pre-eminent practitioner of this craft, with a clear claim to having seen the housing bubble when most academic economists largely could not. As far back as 2002, Baker wrote:

*“If housing prices fall back in line with the overall rate price level, as they have always done in the past, it will eliminate more than \$2 trillion in paper wealth and considerably worsen the recession. The collapse of the housing bubble will also jeopardize the survival of Fannie Mae and Freddie Mac and numerous other financial institutions.”*

This prescient remark<sup>2</sup> was based on a simple method. Baker would identify economic indicators – usually a ratio of two underlying variables – that are departing sharply from their historical norms, so as to suggest a temporary and unsustainable condition. An example would be the price/earnings ratio in the stock market, say for technology stocks in the late 1990s. For the housing bubble, Baker used the price/rental

ratio in the housing market, the ratio of housing price changes to inflation, the vacancy rate, and so forth. (The extent of deviation, coupled to the scale of the housing stock, gives a measure of the scale of the bubble itself – something Baker eventually calculated at about eight trillion dollars for housing.) The word “bubble” is basically a label, applied to the out-of-normal-range rise of an asset price. There is not much more to it than that.

As noted, underlying this method is the idea that market *institutions and relationships* are generally stable, in the sense that normal values exist. That being so, the most likely thing, when a ratio of this kind departs radically from its normal ranges, is that it will return toward them eventually – and in a rush. The departure is a bubble and the rush is a crash. Those who bought high will be forced to sell low, and therefore ruined – something against which Baker warned repeatedly for six years. The method of bubble-detection has an important virtue: much of the time it actually works. But the method does not depend in a systematic way on theory; no theory tells us that the historical ratio of two variables is always, or even generally, the “equilibrium” value. Institutional relationships – the “normal” *p/e* or *price/rental* ratio – *might* change. It is not quite enough to assert, in effect, that the claims of history are eternal.

**GODLEYNES IS NEXT TO KEYNESLINES**

The work of John Maynard Keynes is linked closely to the accounting framework that we call the National Income and Product Accounts. Total product is the flow of expenditures in the economy; the change in that flow is what we call economic growth. The flow of expenditures is broken into major components: consumption, investment, government

2. As was another by Jane D’Arista, in a work based on the flow of funds (2002): “...The bursting of the mortgage bubble could unleash broader financial disruptions with deeper macroeconomic implications than the shakeout following the S&L crisis of the 1980s.”
3. As Mirowski (1991) pointed out, one may consider that in Keynes’s economics, total expenditure is the standard-of-value for which the equivalent in earlier theories was gold or labor or psychological welfare.
4.  $C+I+G+X-M=Y$ . In the standard notation, Y is income, C is consumption, I is investment, G is government spending, X is exports, M is imports, T is total tax revenue, and S is saving. The second relationship is  $(S-I) = (G-T) + (X-M)$ , where S is defined as  $Y-C-T$ . To know any two of the terms within brackets is, by definition, to know the third.

and net exports, each of them subject to somewhat separable theories about what exactly determines their behavior<sup>3</sup>.

Accounting relationships state definite facts about the world in relational terms. In particular, the national income identity (which simply states that total expenditure is the sum of its components<sup>4</sup>) implies, without need for further proof, that there is a reciprocal, offsetting relationship between public deficits and private savings. To be precise, the financial balance of the private sector (the excess of domestic saving over domestic investment) must always just equal the sum of the government budget deficit and the net export surplus. Thus increasing the public budget deficit increases net private savings (for an unchanged trade balance), and conversely: increasing net private savings increases the budget deficit.

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The late Cambridge (UK) economist **Wynne Godley** and a team at the Levy Economics Institute built a series of strategic analyses of the U.S. economy on this insight, warning repeatedly of unsustainable trends in the current account and (most of all) in the deterioration of the private financial balance (Godley, 2008). They showed that the budget surpluses of the late 1990s (and relatively small deficits in the late 2000s) corresponded to debt accumulation (investment>savings) in the private sector. They argued that the eventual cost of servicing those liabilities would force private households into financial retrenchment, which would in turn drive down activity, collapse the corresponding asset prices, and cut tax revenues. The result would drive the public budget deficits through the roof. And thus – so far as the economics are concerned – more or less precisely events came to pass.



In some respects Godley's method is similar to Baker's: an unsustainable condition probably exists when an indicative difference (or ratio) deviates far from prior values. The difference is that Godley's approach is embedded explicitly in a framework of accounts, so that there is a structured approach to figuring out what is and what is not tolerable. This does not produce a complete theory of crisis, but it is a definite move in the right direction.

For example: public sector surpluses were (not long ago) driven by private-sector debt accumulation. This raises the question, how can such accumulation be sustained and what happens when it stops? Conversely in a downturn: very large public-sector deficits are made inevitable by the private-sector's return to net saving. But how long will public policymakers, who are not accustomed to thinking about these relationships, tolerate those deficits? The question is important, since, if for political reasons they do not, the economy may collapse under the weight of "austerity policy." Thus a failure to understand the elementary accounting that Godley so strongly emphasized stands as one of the greatest dangers to recovery from the Great Crisis, both in Europe and in the United States.

On the international side, the willingness of foreigners to hold US government bonds as reserve assets creates a counterpart in the US public deficit. To put it another way, US budget deficits are inevitable so long as the world wishes to add to its reserves of Treasury bonds. But this raises another focused question: what drives the reserve asset decisions of foreign central banks? Will anything ever cause them to sell their Treasury bonds for euro assets, or anything else? By calling attention to reciprocal accounting relationships, the Godley framework very usefully focuses our attention on critical questions and key actors, on the things we know about and the things we need to know about.

Unfortunately again, policymakers rarely exhibit either trained or intuitive understanding of these issues, with the result that accounting impossibilities – such as balanced budgets alongside a continued hegemonic role for the US dollar – frequently inhabit the same space in the political mind.

#### MINSKY AND NON-LINEAR FINANCIAL DYNAMICS

The work of **Hyman Minsky** approaches the problem of financial instability from a different angle. Minsky's core insight was that *stability breeds instability*. Periods of calm, of progress, of sustained growth

render financial market participants malcontent with the normal rate of return. In search of higher returns, they seek out greater risk, making bets with greater leverage. Financial positions previously sustainable from historical cash flows – hedge positions – are replaced by those which, it is known in advance, will require refinancing at some future point. These are the speculative bets. And then there is an imperceptible transition, as speculative positions morph into positions that can only be refinanced by new borrowing on an ever-increasing scale. This is the Ponzi scheme, the end-stage, which must collapse once it is recognized to exist.

Minsky's analysis showed that capitalist financial instability is not only unavoidable, but intrinsic: instability arises from within, without requiring external disturbances or "shocks." Nor does the collapse require an underlying conflict of class interests, though one may be present. There is no such thing as an equilibrium growth path, indefinitely sustained. Short of changing the system, the public responsibility is to regulate financial behavior, limiting speculation and stretching out for as long as possible the expansionary phase of the cycle.

A strong line of descent runs from Minsky to recent work in non-linear dynamics, for example the work of Peter Albin (1998), Barkley Rosser, jr. (forthcoming) and Ping Chen (2010). A key property of non-linear systems is the appearance within them of *phase transitions*: from single equilibria, to two- four- and eight-period repeating cycles and finally to deterministic chaos. These conditions – analogous to the solid-liquid-gas phases of water and other chemicals, or the subcritical/critical phases of a nuclear reaction – are qualitatively distinct and characterized by definite boundaries. Yet the system can pass from one phase to another without the impetus of an external shock or change in the underlying model.

Thus the crossing of a boundary, we are now given to understand, is never a "new paradigm." It is merely the movement of a single integrated system from one state to another. In finance (and in many other fields as well) the regulatory problem can be seen as that of maintaining the system within a stable (and relatively desirable) phase – either hedge or speculative – and well away from the phase boundary associated with Ponzi finance and inevitable collapse.

## “In the present crisis, the vapor trails of fraud and corruption are everywhere”

It's a simple idea. But it played no role in the mainstream's thinking about the appropriate posture of policy toward financial crisis. Ping Chen (2010, epilogue) first quotes and then refutes Robert Lucas, the leading Chicago-school economist, on this point:

*“The main lesson we should take away from the EMH for policymaking purposes is the futility of trying to deal with crises and recessions by finding central bankers and regulators who can identify and puncture bubbles. If these people exist, we will not be able to afford them’. This is the Lucas impossibility theorem in crisis management. However, this impossibility theorem has ... obvious flaws. First, there are reliable methods to identify and punch asset bubbles in our theory of the viable market ... For example, sudden changes of trading volumes in Wall Street signal speculative activities by big investors and herd behavior of noise traders. The regulating agency could easily take counter-cyclic measures, such as increasing the capital reserve requirement, restricting leverage ceiling, increasing the transaction tax rate.”*

In the mainstream, insouciance and fatalism combined to justify inaction. This pattern explains the pathological willingness of some economists – Lawrence Summers was notable example in the United States – to countenance the dismantling of regulatory barriers (such as Glass-Steagall) that helped keep the system shy of the Ponzi phase. It shows up as grotesque in Alan Greenspan's public encouragement for the mass adoption of speculative mortgages. Clearly, incorporating Minsky-thought into regulatory practice would be an enormous advance. But it would still leave an open question: how exactly do we decide which regulations to adopt?

#### INSTITUTIONAL FORM AND THE NEW CRIMINOLOGY

The point of departure for work in this area is **John Kenneth Galbraith's** *magnum opus*, *The New Industrial State* (2007). A huge popular success when it appeared in 1967, this book was the target of a sustained and largely successful assault by mainstream economists, and it disappeared from view during the neoliberal revival. It represented a vast threat to their modes of thought, for it sought to replace (in part) an economics of markets with an economics of organizations – of corporations, governments, unions and other parties, with the focus on internal structures of governance, countervailing power and the efficacy of group effort toward shared objectives.

In *The Predator State* (2008), I argue that after 1970 the large American corporation was pushed into crisis by stop-go macroeconomic policies, international competition, technological change and, especially, the weakening of internal controls over the abuse of the corporate form by executive officers within the firm. In financial firms, it is precisely the weakening or corruption of controls, both internal and those imposed by external regulation, that leads toward disaster.

For this kind of work, close observation can be superior to statistics. **Gary Dymksi's** 2005 examination of sub-prime credit markets provides

an example, and demonstrates that it was very far from impossible to foresee the crisis. It was entirely sufficient, just to look:

*“... The likelihood in market after market is that potential borrowers will break into two prototypical groups: one group whose assets and position are secure ... and a second group, whose wealth levels are so low that contracts are written with the hope of extracting sufficient returns in the short run to compensate for what will inevitably be (for most) longer-term insolvency problems... The financial crisis that is familiar from Minsky's work involves the collapse of expectations and of conditions for refinancing in the formal market ... A second type of crisis, however, involves a collapse of the conditions required for financial reproduction in the informal market. .... This does not mean that these participants will cease to function or to borrow: they have no choice but to borrow and to get ever deeper into hopelessly high levels of debt. When asset exhaustion makes it impossible to renew activities, so that more time cannot be bought, then life and financial crisis can become indistinguishable.”*

Dymksi's work also noted at an early stage the class- and race-based strategies of the major banks and mortgage-originators as they laid their traps for the meager assets of the poor. It raises inevitably the question of responsibility. And this brings us to an important line of new research, focused on economic behavior and the law, and specifically on the conditions that generate epidemics of financial fraud.

In this area a key reference is **William K. Black's** (2005) systematic study of the savings and loan crisis and his development of the concept of “control fraud” – fraud committed on organizations by those who control them<sup>5</sup>. An effort to bring this to the attention of mainstream economists also exists, in the work of Akerlof and Romer (1993), itself greatly informed by Black's practical experience as an investigator and whistle-blower in the savings and loan affair.

In the present crisis, the vapor trails of fraud and corruption are everywhere: from the terms of the original mortgages, to the appraisals of the houses on which they were based, to the ratings of the securities issued against those mortgages, to gross negligence of the regulators, to the notion that the risks could be laid off by credit default swaps, a substitute for insurance that lacked the critical ingredient of a traditional insurance policy, namely loss reserves. One may say that the mortgage documents were largely counterfeits: they resembled mortgages but were not mortgages in any normal sense of that word. The counterfeits were laundered by the ratings agencies, who turned trash into triple-A rated securities. And the laundered counterfeits were fenced by commercial and industrial banks, to “marks” who were (so Michael Lewis tells us), known in the trade as “Düsseldorf.”

None of this was foreseen by mainstream economists, who generally find financial crime to be a topic beneath their dignity, and unworthy even of mention. In unraveling all this now, it is worth remembering that the resolution of the savings and loan scandal saw over a thousand industry insiders convicted and imprisoned – the largest white collar criminal prosecution in history. So far, under both Bush and Obama, fraud has been covered up, and therefore effectively condoned. The

5. There are important parallels between the study of organizational looting in advanced Western and decrepit Eastern economies, developed by Janine Wedel (2001).

intersection of economics and criminology remains a vital field for research going forward, and the civil courts will likely be the major arena where defrauded investors will attempt to secure restitution.

## CONCLUSIONS

Paul Krugman did great service by training his guns on the failures of the club of which he has been, for many years, a most distinguished member. So, I am inclined to forgive the headline writer of *The New York Times Sunday Magazine* for borrowing, almost word for word, the title of an article of mine – published nine years previously (Galbraith 2000). I nevertheless will not resist the temptation to quote my own words from back then:

*Leading active members of today's economics profession... have formed themselves into a kind of Politburo for correct economic thinking. As a general rule – as one might generally expect from a gentleman's club – this has placed them on the wrong side of every important policy issue, and not just recently but for decades. They predict disaster where none occurs. They deny the possibility of events that then happen. ... They oppose the most basic, decent and sensible reforms, while offering placebos instead. They are always surprised when something untoward (like a recession) actually occurs. And when finally they sense that some position cannot be sustained, they do not reexamine their ideas. They do not consider the possibility of a flaw in logic or theory. Rather, they simply change the subject. No one loses face, in this club, for having been wrong. No one is dis-invited from presenting papers at later annual meetings. And still less is anyone from the outside invited in.*

This remains the essential problem. As I have documented – and only in part – there is a rich and promising body of economics – theory and evidence – entirely suited to the study of financial crisis and its enormous problems. This work is significant in ways in which the entire corpus of mainstream economics – and including recent fashions like the new “behavioral economics” is not. And it brings great clarity to thinking about the implications of the Great Crisis through which we are still passing today. But where is it, inside the economics profession? Essentially, nowhere.

It is therefore pointless to continue with conversations centered on the conventional economics, futile to keep on arguing with Tweedledum and Tweedledee. The urgent need is instead to expand the academic space and the public visibility of ongoing work that is of actual value when faced with the many deep problems of economic life in our time. The urgent task is to make possible careers in those areas, and for people with those perspectives, that have been proven worthy by events. The followers of John Kenneth Galbraith, of Hyman Minsky and of Wynne Godley can claim this distinction. The task now is to increase their numbers and to reward their work with the public recognition and the academic security it deserves.

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# THE ONTOLOGY OF MONEY

## Geoffrey Ingham

Images: Frank Perrin

### INTRODUCTION: THE NATURE OF MONEY

Money is a pivotal social technology in the history of human society. Media of exchange and means of payment make possible the operation of the division of labour and the subsequent exchange of production in large-scale markets. After many years of neglect, the question of the nature of money is receiving the attention it deserves. As yet, however, it can scarcely be said that this represents an advance in understanding; unresolved problems are being rediscovered and old errors restated. Fundamentally different answers to the question of the ontology of money have endured for at least two millennia and continue to inform the current debate in Economy and Society. Notwithstanding the differences, it is possible to discern a common problem in most critiques. They fail to understand that money is a pure symbol of abstract value measured by its own scale. As many before them, they confuse the scale with the actual instrument. Some search for the value of money in the value of a commodity, others are confounded by myriad representations of what Knapp (1973) [1924] called the ‘valuableness’ that is identified by a single money of account. The abstract quality of valuableness is given a more precise substantive expression as purchasing power, at any point in time, by the arbitrary construction of a price index. But, as relative prices change through a radically uncertain future, this power is provisional. In Mirowski’s memorable phrase, society’s problem ‘is to find some means to maintain the working fiction of a monetary standard’ (1991: 579). The really difficult question is to understand the ways in which this is accomplished, or not as the case may be.

### THEORIES OF MONEY

In the most elementary terms, there are two distinct and incompatible theories of the origins, development and nature of money<sup>1</sup>. On the one hand, money is said to have first appeared spontaneously in the course of market exchange. Here money is identified with its commodity form. It emerges as a ‘medium of exchange’ that acts as a ‘universal equivalent’ – that is to say, as the commodity against which all others can be valued and exchanged. From the outset, it is important to note that the important distinction between simple barter exchange and a market is not observed in this approach. Strictly speaking, a market is a system of multilateral exchanges in which bids and offers, priced in a money of account, can in principle produce a single price for a uniform good (White 1990). Bilateral exchanges, or barter, need not, and routinely do not, produce a single price in this way – although neoclassical economic theory has tried, but failed, to demonstrate this outcome. Consequently, I have argued that simple barter exchange cannot produce a single stable price for a commodity that would enable it to act as universal equivalent (measure of value, or money of account) (Ingham 2004). That is to say, a genuine market presupposes the existence of a money of account in which demand and supply can be expressed in prices. In other words, money of account is logically anterior to the market (Ingham 2004; Aglietta and Orléan 1998).

<sup>1</sup> It is apparent that the terms of the dispute have a scientific and ideological import that has a much wider resonance than the particular question of money, which, perhaps, accounts to some extent for the persistence of the antinomies (Ingham 2005: xi–xiii).

