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Public debt tipping point studies

ignore how exchange rate changes may create a financial meltdown*

Robin Pope** and Reinhard Selten*** [Bonn University, Germany]

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Abstract

In studies concluding that public debt may hamper GDP growth, the debt tipping effects are estimated as if there were a single world currency. This means that such studies ignore the likely biggest cause of changes in growth rates, namely damage from exchange rate liquidity shocks because we do not live in the fairyland of a single world currency. The conclusions of these studies are accordingly invalid. They deflect attention from a prime danger, namely an exchange-rate-precipitated global meltdown – a danger of the repetition of events of 80 years ago.

These studies are misleading in other respects too. Their estimates of growth determinants conflate the differential growth effects of government expenditures with those of tax concessions and uncollected taxes as contributors to government debt. The conflation entices adherents to see all increases in government debt as arising from excessive expenditures, so that in the current Greek-euro crisis, Greece's real problem, namely tax evasion, is missed, and harmful policies of austerity and depreciation, are proposed that leave the real problem of tax evasion unaddressed.

Debt tipping point studies also fail to allow for the increase in wastefulness of private production. This is despite the fact that over the last 40 years, there have been private activities, including key segments of the financial and the pharmaceutical industries, whose expansion has damaged overall health and growth.

The upshot is misdirected policy analysis and advice. In a global downturn policy should instead be directed to adequate employment-generating fiscal stimulus, to extracting from the well-to-do adequate taxes, to averting further damage from exchange rate liquidity shock by creating a single world currency, and to ensuring that for profit activities in the pharmaceutical and financial industries are adequately regulated, and where this is infeasible, shut down and replaced with fiscally stimulated productive activities.

Key words: exchange rates, employment multipliers, private sector inefficiency, central bank cooperation, central bank conflict, public debt, tipping points, uncertainty, financial sector, Hitler, pharmaceutical sector, World War II, Korean War, fiscal stimulus
JEL: E6, F31, G01, H62, I18

* The conceptualisation and analysis of the damage from massive exchange rates movements, of public sector wastage in the pharmaceutical and financial sectors, and their combination with other matters to draw this paper's conclusions are those of Robin Pope, who wrote all drafts. Reinhard Selten contributed greatly to the accuracy of many of the successive drafts, and to indicating where issues needed elaboration to be understandable by the general reader. Reinhard Selten in addition contributed the information on the Korean War being the fiscal stimulus that restored US employment that had plummeted in the US demobilisation following World War II. We thank Barkley Rosser and an anonymous referee of this journal for highly valued improvements, Geoff Bertram, Richard Cooper, Hilmar Kopper, Gerd Gigerenzer, Wolf-Dieter Ludwig, Veit Köster, Nathan Sheets and Daniel Stelter for background information; Veit Köster for proofing, Jamie Morgan for copy editing; Pulikesh Naidu for exceptional ingenuity and resourcefulness in locating pertinent references and data, and Jacinta Murunga and Maria Vintulkina for their help in these respects also.

** Center for European Integration Studies and Experimental Economics Laboratory, Bonn University
Address: Walter Flex Str 3, 53113 Bonn, Germany
Tel +49-228-731887, 49-228-446 2880, +49 151 124 070 19 Faxes +49-228-73 4936, 49-228-446 2881
http://www.zei.de/zei_english/mitarbeiter/pope.htm <http://www.bonneconlab.uni-bonn.de/econlab/>
Email: Robin.Pope@uni-bonn.de

*** Center for Rationality in the Light of Experimental Economics and Experimental Economics Laboratory, Bonn University

Some economists, e.g. Burton Abrams (2011), argue that the US 2009 fiscal stimulus package may have reduced the country's GDP. They point to wastefulness in government activities and fear that any concomitant rise in public debt may have pushed the debt to GDP ratio above its "tipping point", and into a region where extra government debt damages growth. Their view fuels Republican resistance to raising the US federal government debt level even when such a default would have extreme consequences.¹ The tipping point belief fuels the propensity of ratings agencies to downgrade the US and other countries on the basis of its government debt level being at such a tipping point.² Related beliefs underlie the Maastricht Treaty's limit on the government debt to GDP ratio for members of the euro, and contribute to Germany's reluctance to offer a substantial fiscal stimulus package to Portugal, Ireland Greece and Spain.

The government debt tipping point estimates stem from the analytical approach of influential economists who subjugate the understanding of reality to the confines of tractable algebraic models of maximising agents. The pertinence of such models to science and policy rests or falls on the appropriateness of the model assumptions. Modellers have an ethical duty to avoid shoddy thinking and to be frank enough about their assumptions. Models based on inappropriate assumptions are bad science, and can pervert decision-making. The global economy is already suffering from such bad science perverting decision-making. "Quants" (financial mathematicians) failed to be frank enough about some excessively optimistic assumptions underlying their models. The resultant false confidence in these models aided in exploding the derivatives market in the context of an altogether excessively leveraged financial sector and an absence of adequate regulation of derivatives.³

It is vital to avert a similar misuse of tipping point studies based on a failure to recognize that their underlying assumptions are inappropriate. The approach assumes away: 1) exchange rate movements, 2) most of the economic and employment ramifications of government debt, and 3) private sector waste. It is vital to avert a similar misuse of tipping point studies through shoddy thinking and a nonchalant failure amongst influential economists to alert policy makers to the inappropriate assumptions on which these studies are based. In assuming away these key matters, tipping point studies divert policymakers from risks of damage that exchange rate changes could wreak. The damage could be far more catastrophic than that which occurred in the aftermath of the disorderly collapse of Lehman Brothers on 15th September 2008.

Below Part 1 itemises the inappropriate conceptual framework and assumptions underlying tipping point studies. Part 2 identifies the misuse of the US war years in the most cited debt tipping point study, that of Reinhart and Rogoff (2010). Their study misses the actual

¹ See e.g. David Cowan (2011).

² See e.g. the 5th August 2011 US government's downgrade to AA+ by ratings agency McGraw-Hill Cos and the threat of a further downgrade purely on the basis of the debt tipping point presumption, Detrixe February 9, 2012.

³ The false confidence arose because "quants" shifted from mathematically rigorous models when the entities and relations in them were uninterpreted algebraic formalisms. They shifted to having themselves employed in the academic and commercial financial sector without admitting and alerting others that once these algebraic formalisms receive financial sector denotations, the assumptions required understate the risks of applying the models, including the risks of generating a global meltdown. On this deceptive use of formal models and its contribution to the current global financial crisis, see for instance Humbolt University financial mathematician Hans Föllmer's 2009 careful explication in *Fokus*, David Colander et al (2009) and other output of the Dahlem Group's Economic Modeling project such as its 2009 "Mathematics, Methods, and Modern Economics".

direction of causation, from the demobilisation (withdrawal of military fiscal stimulus) reduced growth and higher debt. Part 2 reveals that the US only regained its pre 1930s employment level with the succession of fiscal stimuli from World War II and the sequel Korean War. Part 3 concerns the damage caused by exchange rate changes. It itemises the six principal false arguments economists invoke and it highlights the shoddy use of data that results in economists missing the extreme damage caused by big exchange rate changes. It illustrates the gulf between their conception of exchange rates changes as either benevolent or harmless with six decisive historical instances of the devastation caused by exchange rate movements. Part 4 summarises economists' blind eye to evidence, thereby highlighting a responsibility to start acknowledging the damage caused by exchange rate changes. Economists bear such responsibility since they entice their governments to maintain the distinct currencies introduced in the nationalistic fervour of national central banks, instituted in many countries in early 1914. Part 5 indicates the different class of tipping point estimates needed for understanding and sound policy. Part 6 examines one aspect of such estimates, namely the need to allow for private sector wastage in the 40-year bubbles of the finance and prescription drugs sectors. Part 7 traces the interwar years following the burst of a financial sector bubble, with nationalistic exchange rate depreciations wrecking global trade and capital flows. It traces how Hitler's bigger, earlier employment fiscal stimulus restored Germany's unemployment to its pre-depression level eight years earlier than did the US's belated armaments fiscal stimuli. Part 8 outlines two measures to avert a repetition of the tragedies of the 1930s and first half of the 1940s: 1) replace wasteful private sector bubble components with a socially desirable mix of government expenditures and taxes; and 2) institute a single world currency. Part 9 concludes.

1. The faulty conceptual framework

Debt tipping point fears stem from econometric estimates that are mis-specified because the underlying analytical approach is naively aggregative. Its inappropriate conceptual framework and assumptions miss the main causal chains impacting on growth.

1.1. The single currency assumption.

First and foremost, none of the tipping point studies includes as an explanatory variable the likely prime driver of reductions and reversals in economic growth, namely damage to growth caused by exchange rate shocks. The approach computes econometric coefficients as if governments and firms operated in a fantasy world in which there always had been and always will be a single world currency.

1.2. The single multiplier assumption for all components of debt

Tipping point estimates assume that there is no need to decompose aggregate debt to get meaningful econometric multiplier estimates, and no need to separate output from employment multipliers. This would only be true if every component in every stage of the cycle had the same multiplier.

But it is fundamental to decompose by the stage of the business cycle. Apart from easing bottlenecks, the stimulus multipliers must be zero at full capacity. But many sub-components of government expenditure have substantial multipliers when unemployment is considerable. Second it is essential to distinguish between a tax cut stimulus and a government expenditure

stimulus. Government expenditure multipliers typically have more stable and bigger expansionary effects than tax cuts. This is because tax cuts can be saved not spent. Indeed tax cuts may be primarily saved in situations like the present in which the overleveraged corporate and household sectors are deleveraging, Koo (2003, 2009, 2011). Third, the stimuli from different components of government expenditures vary dramatically over time and are known to have radically different multiplier effects rendering it basic to solid econometric estimation to decompose in this respect. Fourth, in economic depressions, unemployment can damage society and risk democracy. Thus, output multipliers are partially beside the point. What is key are employment multipliers. As has been uncomfortably salient since the DotCom bubble burst, output can grow with minimal employment growth, a “jobless recovery”, that is output and employment multipliers can be very different.

In summary, the quantitative causal impacts of the different components of debt on output and employment are radically different. These radical differences moreover have been known for around forty years. Yet none of these four forms of decomposition occurs in tipping point studies such as those undertaken by Carmen Reinhart and Kenneth Rogoff (2010), Mehmet Canner, Thomas Grennes and Fritz Koehler-Geib (2010), Manmohan Kumar and Jaejoon Woo (2010). To have these radically different multipliers collapsed, along with changes in interest rates, into a catch-all term, “government debt”, is shoddy econometrics – ignoring differences discovered some forty years ago as regards effects on output. This leaves entirely unattended the vital policy issue of employment multipliers.

1.3. Private sector waste

A third inappropriate assumption in tipping point studies is a constant (zero) level of private sector waste. But private sector bubbles characterise some eras, and are largely absent in others. None of these tipping point studies measure the rising wastefulness of private production over the last 40 years. In developed countries, this wastage includes components of the financial and pharmaceutical industries that are not merely unproductive, but aggressively cancerous in their impact on health and economic well-being.

1.4. Overall

When the likely principal factor yielding big changes in growth is omitted, and when the industrial scale wastage of resources in cancerous bubble components of the private sector are ignored, tipping point inferences are unwarranted. Such inferences rather deflect economists from serious policy issues. One serious issue is the danger that a severe exchange rate liquidity shock would generate a financial meltdown, not merely a three-day liquidity freeze as occurred after Lehman Brothers collapsed on 15th September 2008. Another serious issue is what should be done to remove waste in the financial and pharmaceutical sectors.

2. War Data

In inferring a point beyond which more government debt reduces US growth, Reinhart and Rogoff (2010) deduce tipping point once the government debt to GDP ratio reaches 90%. However, their estimate is made over data from multiple countries. For only 2.3% of Reinhardt and Rogoff's US observations was the US government debt to GDP ratio above 90%, and as Randy Wray and Yeva Nersisyan (2011, p134) further demonstrate, these

observations spring essentially from the slowdown in the US at the beginning of the demobilisation after World War II. Indeed the US took 6 years to build up enough productive output after the war ended early in 1945 to replace the fiscal stimulus of armaments (that accounts for the lion's share of the doubling of US real GDP between 1939 and 1944). In fact GDP and debt had essentially and unsatisfactorily reached a plateau by 1949. It was only with the fiscal stimulus of the Korean War, beginning mid-1950, that US GDP rose above its level in the last full war year, 1944, and debt declined below 90%.

Tipping point theories are about government debt *causing* changes in GDP. It is vital not to confuse them with the reverse, with theories of how changes in GDP cause changes in government debt. Such a reverse causal flow is invariably present, since reductions in GDP other things being equal, cause an increase in government debt (due to reduced taxes received and more government expenditures needed, e.g. for helping the unemployed). Care, not careless use of data, is therefore required to disentangle these two causal chains.

World War II's government fiscal stimuli (armaments build up not covered by tax hikes) is an unambiguous instance of the *reverse causation*, namely of a GDP expansion – without a comparable escalation of tax rates – *causing* a rise in government debt, as is the sequel demobilisation episode (withdrawal of this fiscal stimulus). In broad brush, World War II expenditure was comprised primarily of spending on personnel and munitions in a US that entered the war suffering severe unemployment. There was little change in tax scale and the combination likely had the following effects. The previously unemployed personnel spent essentially all their income boosting the income of other previously unemployed suppliers of their needs, with big fiscal multipliers yielding tax receipts in excess of the personnel incomes paid by the US government. The munitions industry also employed previously unemployed people and to this extent had like multiplier and tax effects. But munitions have too low an embodied labour content so that expenditures on munitions result in an overall increase in the government deficit. Demobilisation got rid of the contribution to the government deficit from munitions so that the government deficit might have shrunk except for the fact that the previously employed military personnel are now mainly unemployed, sending a negative output and tax stimulus through the economy to such an extent that there is a rising government deficit until substantial numbers of the demobilised locate civilian employment. See Table 1.

Table 1: Reverse Causal Chains to those of Debt Tipping Theories for Wartime US and its Sequel Demobilisation

Real US GDP (\$ billion) and Public Debt / GDP

World War II Armaments Stimulus						Demobilisation			Plateau		Korean War Stimulus	
1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
1072	1166	1365	1617	1882	2034	2011	1791	1775	1853	1843	2004	2159
65%	70%	61%	61%	81%	101%	124%	129%	112%	101%	103%	96%	83%

Sources: <http://www.bea.gov/national/>

http://www.usgovernmentspending.com/downchart_gs.php?year=1950_2015&units=p&state=US&chart=H0-total&local=s

It would be patently false to interpret the World War II demobilisation contraction in US GDP as having any causal connection whatsoever to a US government debt tipping point. It was rather a case of a normal post-war demobilisation depression – the typical drop in growth caused by the withdrawal of the fiscal stimulus of payment for armaments and military

personnel. By cutting government the taxes earned previously from war industries, their employees, and those in the military, in these years immediately following on from World War II, demobilisation damaged US GDP growth and raised US government debt. It is of course impossible to blame demobilisation depressions on government debt; it is similarly impossible to invoke Reinhart and Rogoff's tipping point econometric estimates at a threshold of 90% as having any pertinence for the current US debt situation. It is perverse – a false inference regarding direction of causation – to propose that these data points supply evidence for a US tipping point theory. Rather these years are *prima facie* evidence of reduced economic growth from lack of a big enough and rapid enough fiscal stimulus package to replace the globally destructive mass armaments fiscal stimulus that ends abruptly at the end of any war. Peaceable fiscal stimuli such as the GI bill that provided funding for college (or high school or vocational) education for returning World War II veterans (commonly referred to as [G.I.s](#)) as well as one year of unemployment compensation and some additional benefits while helpful, were inadequate. The full recovery came only with another wartime fiscal stimulus, that of the Korean War.

Although the flaw of including the Second World War and its sequel the Korean War is absent from some other tipping point studies, these studies also lack contemporary relevance. This is because this entire genre of studies suffers other serious flaws.

3. Damage caused by substantial exchange rate movements

The prime flaw is that government debt tipping studies are conducted as if there were a single world currency and thus fail to allow for the exchange rate damage wreaked by unpredictable massive exchange rate changes. The exclusion stems from widely held views amongst economists that changes in exchange rates are benevolent or at least non-damaging. The widely held view among central bankers and academic economists, including Reinhart and Rogoff, is that in omitting the fact of multiple unpredictably massively realigning currencies, they are not omitting an impediment to growth – not omitting a principal cause of reduced and negative growth.

Real world exporters, importers, borrowers and lenders remain flabbergasted that any policy influential economist can hold such a view, when it is so patently in conflict with the stylised facts of the massive damage that substantial exchange rate movements cause. This entire section concerns damage caused by exchange rates and how mainstream economics misses all the damage through shoddy arguments. Any serious grappling with the global financial crisis and its future risks pertaining to the Euro (through its higher than average publicly indebted members – and to the US from contagion effects) requires that economists enter the real world.

Entering the real world requires recognition of the scope for actual or feared substantial exchange rate movements to generate a global meltdown, as occurred in the early 1930s. A financial shock makes it difficult enough to maintain capital flows under any conditions. Rolling over debt and continuing other forms of inter-country lending becomes increasingly costly for borrowers since under an adverse shock. Such shocks create additional demands for currencies in which most international debt is denominated (nowadays US dollars and yen). These currencies in which the international debt is denominated start appreciating rapidly as many borrowers find themselves denied permission to rollover their debts and have to get the foreign currency to repay in full or go bankrupt. The appreciation of these

currencies against the currencies of the ultimate lenders accelerates the repayment difficulties of the lenders. On top of suddenly having to repay the principal, to repay it the lenders have to find more by the amount of the appreciation. When the appreciation is substantial, this renders rolling over exceedingly difficult – and repayment of the principal when the roll-over is refused as is typical in shocks, quite out of the question. Lenders recognise how depreciations of the borrowers' currencies increase the likelihood of default, and impose exchange rate risk premia on lending to residents in countries deemed likely to depreciate their currencies. When the risk of depreciation gets big enough international borrowing is essentially extinguished, as was Germany's fate in 1931 – and many another borrowing country, such as Australia. These risks of depreciations are ever present in emergencies. It is hard for governments to make their promises believable enough to the lenders in advance, when lenders are already jittery.⁴ Lenders to borrowers in another currency face risks piled on risks piled on risks:

- (i) risks of non-repayments because economic conditions are bad,
- (ii) these risks are escalated by the borrower's country engineering a beggar-thy-neighbour depreciation in the hope that this will boost exports and employment – a depreciation that may preclude its borrowers repaying foreign debt (as the repayment interest charges have risen by the depreciation)
- (iii) both risks are escalated by trade barriers and depreciations in third countries, all of which indirectly limit the borrower's scope to make export earnings with which to repay the debt.

This triple tier of risks from actual and feared exchange rate changes can first freeze inter-currency block capital flows and then their trade flows. This global meltdown of capital and (to a large extent) trade flows occurred only 80 years ago.

A like melt-down of capital flows would have happened recently if nationalistic central banks had failed to be sufficiently cooperative in using central bank swaps offered by the US Treasury and Federal Reserve. Mercifully it did not happen in the crucial twelve months beginning in December 2007, Allan and Moessner (2010). There was merely a three-day freeze when the US Fed failed to understand the ramifications of not having a US taxpayers' guarantee, or of organising an alternative taxpayer backed takeover of Lehman Brothers.

But the situation remains ultra-dangerous. Many central banks are far less cooperative now than three years ago. Further, the exchange rate rescue during 2008, as detailed in Part 4, happened despite total ignorance amongst the central bankers of its exchange rate ramifications. The currency swaps among central banks that rescued the system over 2008 were organised to bring to a close the system by which the US Fed was bailing out foreign banks before US politicians discovered that this was what they were doing (see Part 4). The world financial system is exceedingly unsafe while central bankers, educated by economic academe, remain blind to how exchange rate changes could freeze inter-country lending, as they did in the 1930s – when nobody knew who would or would not go off gold, nor when.

⁴ To see how hard it is in an emergency to establish credibility, consider Germany in the early 1930s. Germany suffered the fate of massive withdrawal of loans from the US despite not depreciating against the US dollar in its effort to keep the foreign loans flowing – instead facing a massive appreciation of its currency against the US dollar (when that country left the gold standard). The US lenders however could never be sure whether the German government would follow the UK in 1931 when it left gold and depreciated against the US dollar. As it happened, Germany did not follow this depreciation route in an attempt to boost employment in exports but instead followed the more successful employment route of building up armaments, as discussed later in this paper.

Their blindness results in closed economy modelling of the crisis in terms of Libor spreads in a single currency, e.g. Sengupta and Tan (2008), Taylor and Williams (2008). The blindness springs from faulty partial analyses of what exchange rate movements cause, combined with simplistic modelling, and supported by selective use of data.

3.1. Selective use of beggar-thy-neighbour depreciations

One such combination yields the conclusion that deliberately engineered exchange rate liquidity shocks are beneficially equilibrating as in Mundell (1961). The conclusion stems from the selective use of beginning and end period data of a country smashed by a massive exchange rate depreciation, followed by its ultra-low GDP growing for a few years more rapidly than its neighbours. The selective short-term perspective praises any transient beggar thy neighbour effects that are spotted as if they must be beneficent equilibrations, when accounting identities across the set of countries preclude such a conclusion, Pope (2009a). The praisers rarely take a long enough perspective to notice that the devastated country that depreciated typically never recovers its comparative GDP ranking.

Today the country being unwisely pushed toward a depreciation, from the typical unwarranted use of simplistic models and selective examples, is Greece.⁵ This follows from the false allegation that her government debt arises from "lack of competitiveness", e.g. Hans Werner Sinn (2011). Greece's high level of government debt does not arise from lack of competitiveness. Nor does it arise from big government expenditures requiring an austerity programme. As Yannis Monogios of Greece's Centre of Planning and Economic Research itemises, Greek government expenditures are modest by euro standards. It is Greece's collection of taxes from the wealthy self-employed that is dismal, way below the standards of other euro countries, Monogios (2011).

Such tax evasion cannot be cured by increasing competitiveness, or by depreciating, or by austerity. Nor can fiscal transfers cure such tax evasion, much as transfers are desirable. Nor can tax evasion be cured by interest forgiveness, much as such forgiveness is desirable.⁶ But there are numerous hitherto untried ways for Germany (and others) to assist Greece in reducing tax evasion by its wealthy, including three that would aid Germany in: 1) collecting taxes from her own wealthy tax evaders, 2) fulfilling her own Maastricht Treaty debt limit obligations, and 3) reversing her dramatic increase in inequality over the last decade.⁷

⁵ Greece, for instance should appreciate – not depreciate – to gain competitiveness, if we took say Japan as the example. Japan's trade balance rose massively in tandem with her appreciations for decades. This however is as arbitrarily selective and ignoring all the other complexities and interactions and associated conflicting interests of capital and trade flows. A laboratory experiment avoiding some of these misleading simplicities, reported in section 8.2 below, indicates that in real world complexity a single world currency is better for countries maintaining competitiveness.

⁶ Interest forgiveness is doubly desirable when (see the last paragraph of section 3.2), the euro bloc as a whole failed to install sensible protective measures against government interest costs rising *unduly* through withdrawal of foreign hot money flows.

⁷ First, Germany and Greece could together do what many governments have been threatening for over a decade but never done (presumably since too many friends of politicians would be discovered). This is to have their nationals' secret bank accounts accessed by their tax officers to collect unpaid taxes. A sizable country can get such access with threat of non-bank clearance with Swiss banks. A second avenue is adopting Sweden's publicly available tax records for all citizens. A third avenue is Denmark's culture of reporting on tax evaders in contrast to that of Greeks and Germans who only report thieves of physical items from private houses. A fourth avenue is luxury-graded import duties and sales taxes, Kakwani (1983). This avenue would penalise German exporters of luxury goods such as Mercedes Benz, since the wealthy Greek non-taxpayers have a marked propensity to import these.

Greece illustrates the error discussed in section 1.2 above, faulty policy analysis and advice by failing to decompose debt into its expenditure and tax components. A focus on *total* Greek debt – without decomposing it to notice that the faulty component is wealthy tax evaders – has resulted in many economists making the euro a scapegoat. With rose-tinted selective optimism unconnected to the real world issue of how to extract taxes from the wealthy self-employed – they see a beggar-thy-neighbour depreciation as the panacea, and through their misdiagnosis of where the problem lies, endanger the euro.

3.2. Selective use of sovereign debt burden

Selectivity underlies the widespread view that multiple currencies are good because they avoid paying higher interest rates on government debt. According to proponents of this view such as Paul Krugman, countries with their own separate currency are immune from sovereign debt risk premia: the peripheral Eurozone countries facing interest rates on rolling-over their debt have salvation at their doorsteps by exiting the euro zone.

First, if you look around the world you see that the big determining factor for interest rates isn't the level of government debt but whether a government borrows in its own currency. Japan is much more deeply in debt than Italy, but the interest rate on long-term Japanese bonds is only about 1 percent to Italy's 7 percent. Britain's fiscal prospects look worse than Spain's, but Britain can borrow at just a bit over 2 percent, while Spain is paying almost 6 percent.

What has happened, it turns out, is that by going on the euro, Spain and Italy in effect reduced themselves to the status of third-world countries that have to borrow in someone else's currency, with all the loss of flexibility that implies. In particular, since euro-area countries can't print money even in an emergency, they're subject to funding disruptions in a way that nations that kept their own currencies aren't — and the result is what you see right now. America, which borrows in dollars, doesn't have that problem. [Krugman, November 12-13, 2011]

A false reality is constructed by selecting special events at special times in particular countries, and ignoring the complexities of debt in a world with multiple currencies. The actual reality is that countries issuing their own currency are also at the mercy of the carry trade ("hot" cross- country money flows), and also of nasty exchange rate liquidity shocks adding to their government debt. Two examples suffice.

First, contrary to Krugman, Britain never has been safe from a sharp rise in its sovereign debt simply because it has its own £. To realise this, recall that Britain's central bank, the Bank of England on Black Wednesday in September 1992 lost £3.3billion, a loss that caused the UK government debt to jump up 12% virtually in a day! British government debt was at the mercy of speculators; George Soros and others suddenly unpredictably attacking the currency. British government debt was at the mercy of other central banks. On Black Wednesday Germany's Bundesbank showed no mercy and failed to intervene to support the Pound and rescue British taxpayers from this massive hike in government debt. British government debt could not have had this 1992 overnight jump of 12% had there been a single world currency.

Second Krugman should have considered his own country the US, which has its own currency, the greenback. The US government debt burden could rise overnight by more than the 12% that the UK suffered on Black Wednesday. US Treasury officials realising this

routinely rush to China to try to avoid a catastrophic rise in the interest paid on its government debt by wholesale cessation of Chinese purchases of its debt.⁸

Governments cannot avoid the tragic consequences for their central banks of unfavourable exchange rate changes causing government debt to leap.⁹ Avoiding this requires a single world currency. However, governments can avoid the parlous position of the US and the higher interest rates now being suffered by peripheral eurozone countries. They can avoid it by requiring financial institutions operating in their country to hold a suitable proportion of their own government debt. Alternatively, the European central bank could impose reserve requirements on banks, of which a proportion must reflect the sovereign debt of the regions in which they do business. This simple procedure was in force in Australia in the "good old days" when central banks regulated commercial banks, in ways now replaced with price incentives.¹⁰ Indeed, there is a panoply of instruments that in the non-neoliberal past governments have used to limit the interest paid on their debt, and to limit the risk of hot money speculative attacks raising that interest rate. Dropping them was a function of neoliberalist naivety. It would be common-sense to either reintroduce them or create new regulations/instruments that would serve the same purpose. Richard Koo (2011) notes one simple means for Italy and Spain to skip rising interest rates on their sovereign debt: within the Euro area only residents of that country can buy its debt. As he observes, this stops the big Spanish insurance bodies buying German instead of Spanish debt.

3.3. Blindness to interest rates raised by depreciation risk premia

Other economists have a better grasp of history, and would see it as preposterous to view one's own currency as the means of keeping government debt interest rates manageable. But many of these still favour multiple currencies, declaring exchange rate changes beneficently equilibrating. Thus, Reinhart and Rogoff (2004 p.28), praise the massive exchange rate changes engineered by Australia's central bank as beneficently equilibrating. The issue however is, beneficent for whom?

Over the decades since the early 1980s when it floated and adopted a policy of a wildly gyrating exchange rates, Australia, has been a net borrower from overseas. It has had a solid economic performance and democratic stability. Yet from its first central bank decision to unexpectedly depreciate, its exchange rate risk premium jumped. In other words, its businesses, that through its banks had borrowed overseas massively, faced overnight a jump in interest rates – overnight as could be seen from the jump in the pertinent interbank borrowing rate.

⁸ Whether US Treasury can avoid this catastrophe remains to be seen given the black comedy between US factions concentrating on the capital account and the vociferous trade war campaigns of US factions focussing on its export and import competing sectors. The US Treasury seeks Chinese purchase of its debt, something that increases the value of the US dollar, while the US export lobby, supported by many US politicians and Ben Bernanke, the Chair of the US Federal Reserve, wants the US dollar depreciated. The associated inflammatory speeches, summarised aptly by the media with titles such as "Bernanke defends Fed monetary policy, blames China for currency tensions", endanger international relations in general, and in particular risk China spiting the US by abruptly ending purchase of any US Treasuries.

⁹ This vulnerability to devastation of government debt from exchange rate changes remains even under the textbook example of Paul Samuelson in which government debt is exclusively held by nationals. Having separate currencies imposes on central banks the risk of losses from exchange rate changes that increase that countries' government debt.

¹⁰ However price incentives require years of fiddling to discover the right incentive, and the incentive needs further fiddling as conditions change, rendering quantitative orders more appropriate.

Australia (like New Zealand) has faced exchange rate interest rate risk premia relative to other rich democracies pushing its interest rates 4 to 10 times above those of other rich democracies. Reinhart and Rogoff might thus be interpreted as declaring that Australian businessmen benefit from paying 10 times what German and US businessmen pay in interest on their loans. Small wonder business people involved in international trade deem that economists who praise volatile exchange rates lack connection with reality.

Like most economists, Reinhart and Rogoff seem to be unaware of the actualities of borrowers suffering higher interest rates because of exchange rate uncertainty. That higher interest rate is termed the (depreciation) exchange rate interest rate risk premia. This lack of awareness can be inferred from the international economics text of Maurice Obstfeld and Kenneth Rogoff (1997). The text is an essential pre-requisite for an education as an international macroeconomist. Uncertainty is introduced, only about half way through the text, and then as if there were a single world currency for traders in goods, services and capital. The costs of exchange rate uncertainty are left out, including the higher interest rates resulting from exchange rate risk premia suffered by borrowers. They have to be left out to allow the graduate student to grapple with tractable maximising problems within expected utility theory (that itself is risk-free as regards experiences of agents in chronological time, Pope (1985), Pope and Selten (2010/2011). The damage to international economic policy from economics graduates being diverted to non-real world problems of imaginary maximising agents is further explored in Pope and Selten (2011a).

The higher interest rates arising from exchange rate risk premia are a major component in the borrowing costs of businesses that primarily borrow overseas under US dollar denominated contracts. Businesses started borrowing extensively in this way in numerous countries, developed and developing since the early 1970s initiated a need to recycle OPEC petro dollars. These loans have carried depreciation risk premia ever since the nasty shocks of the doubling of the US dollar in the early 1980s sent many businesses bankrupt.

Businesses borrowing include those located in Australia and New Zealand. The Australian and New Zealand dollar are ultra-volatile relative to the US dollar, and so is the concomitant depreciation risk premia. These businesses pay interest charges that are not by 1%, not by 10%, not by 100%, but, since the early 1880s, frequently 4 to 10 times that paid by many rivals without these businesses' real sector activity being discernibly more risky than that of their competitors in Germany, the US, Japan and so forth. See e.g. Hawkesby, Smith and Tether (2000), Douglas and Bartels (2002).

3.4. Blindness to the ramifications of admitting that exchange rate movements are unpredictable

This massive interest surcharge might conceivably be a price worth paying if the beneficent equilibrating effects of exchange rates outweighed these costs. If exchange rates equilibrate so beneficently as to outweigh costs like higher interest rates, there must be fundamental supply and demand factors that have massively desirable impacts, and zero depreciation risk premia on interest rates. However, as surveys from the early 1980s, up to those in this millennium such as Charles Engel, Mark Nelson, and Kenneth West (2007) note, forty years of econometrics has failed to discover any out of sample equilibrating fundamentals whatsoever – unless the sample points are extended beyond policy relevant time spans (something predictable within three years). In turn, this leaves unpredictable any country's depreciation risk premium.

In short, all exchange rate changes and thus all the often massive exchange rate risk premia piled on interest rates, are unpredicted. No pertinent supply-demand fundamentals have been discovered – not the trade balance, not government debt, not private debt, not inflation rates Beneficial equilibration is resoundingly empirically disconfirmed.

3.5. False correlation arguments

Confronted with this disconfirmation, some economists switch to the empirically false statement that exchange rate changes do not need independent analysis since they are correlated with inflation, e.g. Qian, Reinhart and Rogoff (2010). Consider the two most recent major exchange rate crises affecting much of the world, that of South East Asia in 1997 and that of the abrupt rise in the US dollar before sufficiently widespread central banks swaps were initiated in late 2008. Both occurred in periods of low or low and falling inflation, and caused drastic damage. In short the arguments that exchange rate and inflation changes correlate to such an extent that it is superfluous to study exchange rates, and the associated implication that exchange rate changes cause no more damage than inflation and can be studied as if there were a single world currency, is wishful thinking.

3.6. Use of irrelevant price relativities

On other occasions the same economists declare that there is no need to study exchange rate changes since these are harmless. Their reasoning is that even after massive unpredicted exchange rate liquidity shocks, the relative consumer price indices of countries change little, e.g. Rogoff (2001). This is to focus on the wrong price relativities. Consumer price indices comprise non-traded goods. What exchange rate changes do is to jolt international goods, services and capital flows, and to massively and arbitrarily redistribute international wealth.

In goods and services, the pertinent price relativities are between competing local and foreign traded goods prices. Once the focus shifts to these, the damage becomes apparent. To give but one example, depreciations have wiped out much or all of the import competing manufacturing sectors of many OECD countries, Pope (1981, 1985a, 1986, 1987, 1992); Pope/Selten (2002); Sheets (1993: Ch.1). Thereby these depreciations are responsible for part of the damaging structural upward shift in the unemployment rate in advanced economies. This began occurring in the early 1970s, and slowed growth in many advanced countries in the later 1970s, the 1980s and in some also in the 1990s.

Equally important is how exchange rate changes cause shocks, changes in capital flows and changes in wealth.

A focus on consumer price indices ignores how exchange rate movements randomly, arbitrarily, inefficiently:

- shift wealth between countries,
- send businesses and governments broke,
- generate massive losses for taxpayers, and
- divert scarce high talent away from the real sector into the foreign exchange component of the financial sector whose services would be irrelevant without variable exchange rates.

3.7. Examples of the devastation caused by exchange rate movements

A few examples paint the picture of these unpredictable nasty shocks caused by exchange rate changes. Those selected are from the period after the demise of the Bretton Woods pact for exchange rate stability, and the concomitant demise of steady growth in rich democracies.

Example 1

There was the tripling of the price of oil twice in the 1970s as Arab retaliation against the US for siding with Israel in the Sinai war. This resulted in a massive transfer in wealth to those in the OPEC cartel, who, unable to instantly spend it all, delegated it to US banks who chose to lend out these billions in US dollars (petro-dollars loans). These exchange-rate unhedged petro dollar loans continued into the 1980s, since the redistribution of wealth was too vast for OPEC countries to spend it all in less than a decade. The petro dollars were recycled primarily on a short term (three month roll-over basis), a most profitable way of issuing the loans from the viewpoint of the US banks. In a retrospective understatement, Paul Volcker observes in Volcker and Gyohten (1993) that it is unclear that such short-term loans were in the general interest. Rapid rollover debts are unmanageable for borrowers if either interest rates or exchange rates shift adversely and unpredictably. The upshot was that the unpredicted doubling of the US currency's value between 1982 and 1985, doubled rollover debt interest repayments for most borrowers outside the US. The doubled rollover debt repayments created extreme hardship even in advanced economies, and sent much of the Third World into bankruptcy. The decision was, with IMF assistance, not to save the real economies in the first and third worlds, but the New York financial sector.

Example 2

In the early 1990s, the UK central bank and taxpayers suffered the catastrophic Black Wednesday pound depreciation of 1992.

Example 3

The 1997 East Asian crisis made for devastating depreciations that wrecked economies that had been declared as model in their behaviour by the IMF a few months earlier.

Example 4

The East Asian crisis aided in the collapse of the rouble the next year and meant that a systemically important hedge fund required a bailout (Long Term Capital Management), as detailed in the *New York Times* and in Paul Davidson (2007). Without swift action of the chair of the US Federal Reserve Board Alan Greenspan to enable a fairly smooth collapse of this giant hedge fund, the entire world risked the sort of financial implosion actually experienced about a decade later.

Example 5

The abrupt rise in the US dollar followed the collapse of the dotcom bubble and thus the collapse of the scope for international borrowers to rollover their US debt. This abrupt rise of the US dollar put giant multinational real sector firms like Pasminco into bankruptcy. It also caught the Australian Treasury, whose interest swap deals had been premised on the Australian dollar rising, when in fact the dotcom liquidity crisis meant that instead it was the US dollar that rose dramatically.

Example 6

In the recent global financial crisis that began in late 2007 and that is far from reliably over, there was a narrowly averted global financial and real sector meltdown. It was averted

through inter-country cooperation, central bank currency swaps that stopped the rise in the value of the US dollar (that many key currencies faced by the time of Lehman's disorganised collapse), because debts denominated in US dollars could no longer be rolled over. Without these central bank swaps there would otherwise have been an unmanageable soaring in the value of the US dollar.

4. Blindness to exchange rate damage

None of the damage from exchange rate changes listed in any of the above six examples is in the vision of the average economist. It is unsurprising, therefore, that economists – even those who engineered the stabilisation of the value of the US dollar in the US Federal Reserve – missed the economic salvation generated by the central bank swaps. Indeed the US Federal Reserve missed the exchange rate signals of the beginnings of the crisis on account of the endemic closed economy modelling practised by central banks. Thereby they lost almost two years of opportunities for commencing compensatory action.

The US dollar started appreciating markedly from late 2005 as difficulties were experienced with house mortgage repayments, resulting in reduced scope for foreign firms to rollover their US debt, much of which was US dollar denominated. But the causes of this rise in the demand of US dollars went unremarked largely by the US Federal Reserve Board. Its staffers instead used only closed economy indicators. These yield an onset date almost two years later, too late for gentler remedial action. Thus, the onset of this millennium's financial crisis is dated by the US Federal Reserve Board's New York staffers Michael Flemming and Nicholas Klagge (2010) as only beginning in early August 2007, when interbank lending contracted sharply; the contraction followed the release of information that key hedge funds of a big foreign bank were in trouble.

In response, by December 2007, in conjunction with the US Treasury, Ben Bernanke had instituted TAF, the Term Auction Facility, to aid US banks, and those foreign banks with enough deposits/collateral in the US. To help foreign banks ineligible for TAF, and to reduce the use of US taxpayer money to help eligible foreign banks, at essentially the same time, mid-December, with the consent of the US Treasury, the chair of the US Federal Reserve Board negotiated swap agreements with the European Central Bank and the Swiss National Bank, and successively raised the amounts. Compared to late 2005, by mid-2008, the US dollar had already soared 30% against the euro and some other key currencies as increasingly borrowers were unable to rollover their international debts that were mainly denominated in US dollars. The measures were thus insufficient initially to help foreign borrowers, but began to be effective in reversing the US dollar shortage.

Within a month of the collapse of Lehman Brothers in September 2008, yet more foreign banks located in many countries were knocking at the US Federal Reserve Board door for help. Ben Bernanke expanded the dollars available through the swaps agreement by nearly a factor of 10, including by brokering swap deals with the central banks of most of the developed world, and soon after, with some in the third world. The upshot was a removal of the US dollar shortage - of an allowed reversal of exchange rates to their pre-crisis level within a couple of months. These central bank swap agreements thus averted something far worse than the unpredicted doubling in the value of the US dollar that occurred in the early 1980s. But the US Federal Reserve Board averted this exchange rate rise catastrophe

accidentally in its efforts to have foreign banks stop pressing it for liquidity at the cost of US taxpayers.

The US Federal Reserve Board felt it must be an impartial supplier to US and foreign banks of liquidity in the emergency since the foreign banks threatened that otherwise New York would lose its status as an international financial centre. Ben Bernanke, however, could anticipate the political ire that would erupt four years later from freedom of information revelations of US taxpayers bailing out foreign banks. For further details, see Pope and Selten (2011a and 2011b). TAF (available to some foreign banks with US subsidiaries) and central bank swaps (available in due course to most foreign banks) removed this exchange rate pressure during the height of the crisis. Within a month of the Lehman Brother collapse, in the case of the euro, and for some other currencies by early 2009, the swaps had resulted in a reversion in the value of the US dollar to its pre-crisis level.

The salvation brought about by averting a drastic rise in the US dollar is pivotal. This salvation, this averted exchange catastrophe, should not be sidestepped as it has been in nearly all analyses – by inquiring (in a closed economy setting ignoring exchange rates!) whether these central bank swaps damped interest spreads, and like questions! Massive sectoral and inter-country damage arises from these exchange rate changes themselves. The fundamental issue is how the central bank swaps cooperatively moved exchange rates in the critical crisis months, and how quickly many central banks reverted afterwards to uncooperative beggar thy neighbour depreciations.¹¹ As the foremost cause of massive damage in international flows of goods, services and capital,¹² *unpredictable* exchange rate changes arising from central bank conflicts need to gain centre stage before any debt tipping estimate is informative. Further, future exchange rate changes also affect growth. But as detailed in our central bank conflict cooperation theory, these will remain largely unpredictable. This is due to the extreme difficulties in predicting the personal and political interactions underlying central bank cooperation and conflict. This inherent exchange rate unpredictability in turn puts limits on how informative econometric tipping estimates could ever become.

5. Needed: a different class of tipping point estimates

Debt tipping point estimates are time-wise and sector-wise too aggregative. Government expenditures need separation by category on account of their differential multipliers, and inclusion along with government debt, since each category of government expenditure operates with a different lag and through different channels. Econometrically estimated multipliers for categories of government spending include the effects of wastage, so that it would be double counting to consider a reduction for wastage (for public sector inefficiency). Econometrically estimated multipliers may need adjustment for the state of the cycle also. The multipliers will be smaller in a boom if they crowd out private investment and expenditure.

¹¹ Thus as the crisis receded, Linda Goldberg, Craig Kennedy and Jason Miu detail how many central banks selected less competitive rates at which to provide the US dollars available by the swap arrangements, while the teams of Joshua Aizenman and others, note that many countries in due course depreciated against the US dollar despite still having central bank swap facilities. Naohiko Baba (2008) and Baba, Frank Packer, and Teppei Nagano (2009) detail the turmoil in forward exchange rate markets from borrowers being unable to roll over their debts in the wake of the financial crisis.

¹² Other factors impinging on growth such as housing and credit cycles are in comparison to exchange rates, predictable. Further these other factors are far steadier per period of time in their progressions up and down than are exchange rates. Models assessing the effectiveness of central bank swaps typically omit the exchange rate as a determinant as if there were not a set of central banks doing the swaps!

Currently the reverse seems the situation. US commercial banks are reluctant to reduce their stratospherically high free reserves and lend to the private sector. When the US Federal Reserve Board fails to force massive lending on these commercial banks, the alternative may not be efficient private sector investment and spending, but total waste.

6. Allowance for private sector wastage

The question must be asked about what private activities are being crowded out in each decade. Are they communally benevolent or communally destructive ones? Over the last forty years of neo-liberalism, in advanced economies, the biggest firms in the pharmaceutical and the finance industries have far excelled in profits, as measured for instance by those reported in the Fortune 500 top companies, and other measures.¹³ Yet in these two industries, they have had such a high proportion of unproductive communally damaging output as to be classified as primarily bubble activities. Indeed bubble is perhaps too kind a metaphor. A more apt metaphor might be to classify this proportion of their activities as a cancer, as a malignant tumour.

6.1. The finance bubble

The bubble nature of much of the growth in the finance industry will be familiar to economists, the readers of this journal, and thus needs little detailing. This is because its bubble nature became apparent in the aftermath of the disorderly collapse of Lehman Brothers in September 2008. Alan Greenspan authorised the rescue package devised by the New York Fed's William McDonough that averted the disorderly collapse of the giant hedge fund Long Term Capital Management in 1998. Had he still been at the helm in 2008, it is just conceivable he could have kept the financial sector bubble going up to today, so that many readers might doubt its bubble nature.¹⁴

Prior to the collapse of Lehman Brothers, there was already an eerie parallelism between the 1920s economic difficulties of real economies while the private financial sector bubbled, and the jobless US "recovery" from the bursting of the Dotcom bubble in the form of an acceleration of its private financial sector bubble. But those who pointed this out, or who earlier pointed out the inefficacies and dangers of Long Term Capital Management's arbitrage calculations, the even more fanciful nature of Enron's fancy derivatives, the frauds (going beyond mere danger) involved in many credit default swaps, were silenced by the Financial Round Table's lobbying power. It parallels how the lobbying power of those holding prescription drug patents silences the frauds, the lives lost and the inefficacies in the usage of

¹³ Public Citizen (2003), Angell (2004), Nelson (2008), Mijuk (2011), Philippon and Ariell (2008, 2009), Rhodes and Stelter (2011, 2012), Stelter (2012).

¹⁴ Whiles conceivable, he might well have failed. On its being conceivable, Greenspan might not have tightened interest rates as did his successor Ben Bernanke, prior to the crisis, a tightening that started the unwinding as investment banks and others leveraged on average 30 fold and many far more than 30-fold, could not afford even a minute interest tightening. Whether Greenspan would have avoided the explosion of the financial sector unwinding on other accounts before he could organise orderly institutional collapses as indeed Bernanke had done for several institutions prior to Lehman's collapse. His inability to organise it related to his reluctance to have US taxpayers underpin Lehman's purchase by a UK bank when the UK Financial Authority insisted on such a guarantee for it to approve the purchase. Charles Ferguson (2009) details Bernanke's unawareness of the international bankruptcy law ramifications of allowing Lehman's disorderly collapse. Whiles Greenspan was likely equally unaware of these, Greenspan was so close (in many respects too close) to the parties involved, that he would have in a generalised manner understood better the extreme dangers in such a collapse, and conceivably engineered the taxpayer guarantee from either the US or from the British authorities.

most patent drugs and vilifies those raising these issues. Until the collapse of Lehman Brothers, in its forty build-up years, those seeking to get the wastage excised from the private financial sector, faced censure, vilification and worse. The market never does anything seriously wrong. The government sector is where all substantial wastage lies was the prevailing view.

The damage from the finance bubble of the last 40 years cannot be estimated yet, since it is unclear what the future will bring to either the real or the financial sector in the US or in any other country. But if we use information provided by John Boyd and Amanda Heitz (2011) on the cost of a typical financial crisis in the last few decades, it will take the US alone a payback period of at least 53 years, and possibly up to double that. The collapse of the 1920s financial bubble destroyed the highly integrated world capital market to such an extent that risk spreads (a prime measure of integration) have remained higher this millennium than in gold standard days.

The collapse of that private sector finance bubble thereby destroyed the last chance of Germany being able to meet its reparations payments with German democratic consent, as it made the war reparations transfers dependent on continued US loans, whose hot money loans component collapsed soon after, as Keynes in due course appreciated as a risk. The rise of Hitler may be partially attributed to unreasonable reparations, as Keynes predicted in 1919,¹⁵ and partially to the private sector financial bubble giving a false impression of Germany's reparations capacity. The evaporation of the US hot money inflows (aided by fears that the German mark would be depreciated), precipitated the German banking crisis of 1931, Muget Adalet (2003, 2005), and added to Germany's already dangerously high level of unemployment.¹⁶

Furthermore Kepa Ormazabal (2008) furnishes telling evidence that, but for the US *private* financial sector operating against the interests of the industrial sectors in Germany, the US, the UK and France, Germany's unmanageable war reparations would have been dropped in the mid 1920s in exchange for the US forgiving the UK and France the massive debts to the US that they had accumulated before the US entered World War I. What the UK and France needed was gold (foreign exchange) to repay their wartime-accumulated debts to the US. Such tripartite debt forgiveness would have been to the massive benefit of the real sectors in all four countries, the UK, France, Germany and the US. However, this did not happen. Instead the potential real sector profits were skimmed off in what in the end proved a vain effort to have three of the countries repay their war debts, and some of what was skimmed off was wasted in a 1920s financial private sector bubble.¹⁷

¹⁵ See e.g. Keynes (1920).

¹⁶ Ohlin contended that Germany could borrow overseas to meet the reparations. Keynes (1929, p7), warned that Germany's international borrowing opportunities from the US would dry up in a crisis – as indeed happened in 1931 with the conjunction of high German unemployment and the US banking crisis – and that if these dried up, Germany's domestic savings could not then sustain the exports required for Germany to keep to the Dawes plan reparations schedule. On Keynes' 1929 debate series with Ohlin in the *Economic Journal* on this, see Ormazabal (2008) and Geoff Bertram (2009).

¹⁷ The US financial sector had been booming from 1915 since France and Germany borrowed heavily from the US before she entered World War I. That war's end might have led to a normal contraction of the US financial sector. Instead, the US private financial sector ballooned into a bubble, importantly through loans to Germany in the 1920s. In the 1920s, there was discussion of forgiveness of Germany's reparations with concomitant forgiveness by the US of British and French loans. But US private sector financial interests prevailed over such proposals, and in prevailing, consigned to export surplus competitions with each other the debtor-to-the US countries of France and the UK, and like fierce export competition to the traded goods sectors of Germany and the US. The loans to Germany can be deemed to have a significant bubble component in the sense of being

6.2. The prescription drugs bubble

In virtually every western country, through patent laws, taxpayers offer almost free to private firms new drugs invented through university research funds. Taxpayers then contribute heavily to the commercial trialling of these publicly funded discoveries, and their write-ups in medical journals since a good deal of this comes also from government research grants. Tax payers contribute then heavily to – in some countries 100%) – purchase of the patented drugs prescribed by clinicians. Taxpayers contribute to the medical publications and other information supplied to clinicians by the firms who control both clinicians' initial education on drugs and their updating courses for continued medical certification. In addition to all these contributions, taxpayers encourage the patent medicines industry with generous tax deductions on its "innovative investment", and in many countries taxpayers forego normal sales taxes and import duties on its patented products, deeming them a merit good superior to food that often faces some taxes.

The upshot of this commercially driven boom in sales of patent medicines is typically false advice to clinicians on what to prescribe, and as the UK Royal College of Physicians (2010) determined, a situation that prevents people from making healthier choices. There has been a wholesale distortion from making the environmental and lifestyle changes, that can enhance health. Instead of making these changes, pill popping expensive newly patented drugs, of limited efficacy and marked adverse side effects, has become the prevailing approach to health problems.¹⁸ Concomitantly there has been a corruption of medical journals and academe into publishing pseudo objective clinical trials and assessments of these patented products. The corruption is detailed by the International Committee of Medical Editors in their reform rally of 2001,¹⁹ and more comprehensively by former *British Medical Journal* editor, Richard Smith (2010). There have been like scandals as regards medical devices.²⁰

Itemisations of the waste to human health and citizen's budgets date back in journals to the 1990s. Three books presenting more comprehensive accounts of this medical disaster are those of Abramson (2004), Angel (2004) and the former director of the Integrity in Science Project, Merrill Goozner (2004). Each year since, such is the extent of the calamity of the prescription drugs bubble, multiple journal articles and several new books appear on its extent with suggested remedies, including statistical literacy education for clinicians and patients.²¹ Proposed remedies also include barring the currently standard practice of publishing data from that subset of the clinical trial patients in which the drug seemed to work well, and hiding unpublished virtually all the bad results of the trials, something that has turned evidence-based medicine into a black joke.²² Last year's reform proposals for creating better doctors include Berlin's Max Planck Institute on Human Development, Gerd Gigerenzer, and Oxford's National Knowledge Institute, J.A. Gray Muir, Gigerenzer and Muir (2011). Last year's reform

into activities that had low likelihoods of enabling Germany to fulfil its reparations repayments obligations if economic conditions deteriorated markedly, Ormazabal (2008). This has analogies to US housing loans in the last couple of decades having a large cancerous, bubble component, namely those made to borrowers with lowish repayment likelihoods if economic conditions deteriorated.

¹⁸ Abramson (2004), Blech (2009), Pope (2009b), Weuve et al (2012), Smith (2012).

¹⁹ This was published jointly by the editors on 13 September 2001, in an attempt to avoid any of them being victimised by withdrawal of promotional support by pharmaceutical firms. It can thus be found in the top English-speaking medical journals on that date including in *The New England Medical Journal*, *The Lancet*, *The Journal of the American Medical Association*.

²⁰ See e.g. Gigerenzer, Mata and Frank (2009, 2010), Dorschner (2010) and Sage, Huet and Rosnebot (2012, and Reuters (2012).

²¹ See e.g. Monahan (2008) and Gigerenzer and Galesic (2012)

²² See e.g. Wieseler B, McGauran N, Kaiser T. (2010); and Loder and Godlee (2010)

proposals for reducing medical conflicts of interest also include those of top figures in Germany's medical establishment, namely Mainz University's Klaus Lieb, the German Network for Evidence-based medicine's David Klemperer, and the President of the German Doctors' Pharmaceutical Commission, Wolfgang-Dieter Ludwig.²³

But at present, giving good advice to patients and reducing conflict of interest is an uphill battle. Faculty nonchalantly allow their name to be put on ghost written articles by firms to acquire promotion, with payment for their "editorial time" in considering the offer. If the faculty member is eminent enough, for instance on one of the infiltrated supposedly independent health government advisory boards, the payment can be very substantial for such "editorial time". The US Senate's 2010 publication *Ghostwriting in Medical Literature*, would like to get such side payments and the ghost-writing itself eliminated. In this report Senator Grassley provides case studies of how ghost-writing results in biased reports on drugs that should never have been approved, as top medical journal editors later admit. But the journal editors admit this only after the journal has made its mass profit from overpriced reprints of the article sold to the firm, and the firm itself has netted the patent holder blockbuster profits at the cost of the rest of the community, and killed numerous takers of the drug. Reforming medical faculty continue to document the private sector waste and damage to health from ghost writing as they have for decades, e.g. Goetszche et al (2009), Lacasse and Leo (2010) and Fugh-Bermann (2010), and some medical schools, embarrassed by publicity of the deaths resulting from biased papers published by their faculty, are beginning to tighten standards. But for the limited number of schools attempting to tighten, policing of any bar on ghost-writing, would require formidable courage.

Outside academe the corruption and waste from the prescription drugs bubble is on an even larger scale. News continues to surface from whistle blowers and from non-firm funded research of discarded and withheld evidence on damaging effects of drugs, their lack of efficacy, their exorbitant cost and fraudulent billings of health insurers and governments.²⁴ The criminal fines imposed in the law-suits render the pharmaceutical industry the biggest lawbreaker in the US. But as commentators observe, the fines, while in the billions of dollars, are trivial relative to sales on the blockbuster patented drugs eventually withdrawn in light of the deaths caused and their dubious efficacy.²⁵

Fresh reform packages continue to be boldly proposed. But to date none has succeeded in substantially denting the wastage. Heads of regulatory bodies exposing malpractice and seeking to instill safety/transparency/objectivity find themselves out of a job. (Vogel, 2010) Being a health minister while honouring the mandate to care for citizens' health and pocketbooks is parlous. This was discovered by Horst Seehofer when, as Germany's Health Minister, Seehofer had constructed a "positive" list. The list excluded the ineffective, dangerous exorbitantly expensive prescription drugs for which the German public health insurers currently pay. His positive list however was shredded. At a celebratory birthday party for the head of the patented drugs lobby, Seehofer's undersecretary presented to its head as his gift, the list shredded. Seehofer himself presumably was not invited to the party. See Huber (1997). On the shredding Seehofer then gave this interview:

²³ Klieb, Klemperer and Ludwig (2011).

²⁴ See e.g. ElBoghdady (2011), Feeley and Reitman (2011), Fox (2011), Gabler (2011), German (2011), Kaiser (2011), Serafino and Kitmura (2011), Sharp (2011), Leuty (2011), Glenmullen (2012). Feeley, Fisk and Voraceos (2012), Sell (2012), Johnson (2012).

²⁵ Feeley (2011a), Feeley (2011b), Feeley, Yasiejko and Milford (2011), Feeley and Voreacos (2011), Feeley and Fisk (2011), Gabler (2011), Meier (2011), Seward (2011), Associated Press (2011), Feeley (2012), Johnson (2012), Lawrence (2012).

Reporter:

Does that mean that the pharma lobby was so strong that the government (reform) policy had to be withdrawn?

Horst Seehofer:

Yes. That is the case since 30 years till now. Meaningful structural changes toward a more social market economy in the German public health sector are not possible because of the resistance of confederated lobbying.

Reporter:

It cannot be that the industry is stronger than government policy. In the end government policy should say No!

Horst Seehofer:

I cannot contradict you.

English translation.

The German language broadcast is available on:

<http://www.youtube.com/watch?v=DCy1D1HGeeA> as uploaded 27 September 2008 by Germany's Organisation for Truth (die Wahrheit)

As Germany's Organisation for Truth said (in German) in its caption to the translated video clip above, "here Seehofer acknowledges that the confederated lobby is stronger than the people's government representative." A like reform-minded successor as Germany's Minister for Health, Ulla Schmidt, similarly discovered Big Pharma's greater strength, Huber (1997), Weber (2003).

Indeed being a health minister seeking to reduce the wastage is one of the most unenviable posts for any aspiring politician, Sturtz (2011). At the first hint of an ineffective drug with dangerous side effects losing its taxpayer subsidy, or being banned or not approved, the patented drugs lobby promptly discovers a patient ready to appear on television declaring that the drug about to be banned (or not yet approved) has saved her life, and what politician can cope with being portrayed as so heartless? The blackmail is the threat to withdraw commercial sponsorship of prescription drug trials. The threat is real. Commercially sponsored trials would virtually vanish if objective scientific standards were imposed on the trials, their write-ups in medical journals, and their subsequent prescription rate. Commercially sponsored trials, as the firms openly admit, are marketing exercises via the doctors and patients involved in them. Yet firms present them as the innovative engine of the entire economy and the bringer of health, and provoke inter-country rivalry to get more approved, Edney (2011), Harris (2011).

The marketing entices governments, the clinicians and public to ignore the evidence detailed by the UK Royal College of Physicians, and innumerable reform-minded medical researchers, that these patented drugs are perverting healthy choices and are excessively costly. The marketing entices all to ignore the fact that taxpayer funds lie behind the discovery of essentially all drugs – including that tiny proportion of drugs that have efficacy and sufficiently modest adverse effects to warrant their use. That tiny proportion may be around 0.01 of all ever approved, and thus an even more minute proportion of new patented drugs. How tiny the proportion is, might be judged by the matter that in 1995, Berlin's General Medical Council

proposed publishing a positive list of the 600 out of over 50,000 drugs for which German public health insurers paid. The list was not published, since the German prescription drugs lobby argued that so doing would infringe free competition, and threatened to sue that Council's head personally for millions if the list were published – and won a law suit to that effect against the Germany's public health insurers a year later – Huber (1997).²⁶

US reformers, such as the Center of Medical Consumers and Public Citizen, fight valiantly to have withdrawn prescription drugs that should never have been approved. They often succeed. But the victories are almost merely Pyrrhic. The withdrawals occur typically only after the firm has enjoyed about ten years of mega profits, and finds that its rising toll of lawsuits over deaths caused by the drug are reducing the profitability anyway. The law-suits lodged by relatives and patients, and other evidence of the pill's adverse effects transitorily alert the public that there is one bad pill, but fail to give the public that this bad pill is no exception, rather the norm.

In this respect the US reformers are way behind the German ones in documenting the extent of the problem, in documenting through construction of positive lists, the minute proportion of good prescription drugs. It might be that under US freedom of information acts the US reformers could construct a positive list to form an overall view of the problem by hiring some of the army of Germans who have constructed positive lists. It is unclear that these Germans could be sued under German law for producing positive lists for a foreign country (even if the same drugs are sold in both countries).

However it is dubious whether a published positive list would *by itself* improve health and end taxpayers contributing to ineffective, dangerous, exorbitantly priced patented drugs. After all, the decades of German reformers constructing positive lists ends with each new list constructed being shredded. The latest shredding was 2010. BigPharma helped in a decision not to open this Pandora's box, but instead to accept a cut of 17% in the price of all old (not new) drugs. It seems plausible that even if a positive list were published in the US, BigPharma would persuade the US government to keep on having Medicare and Medicaid pay for their ineffective, dangerous, exorbitantly priced patented drugs.

A positive list *acted on*, as under the NHS (the UK National Health System) is a big step forward. It is however not enough, as the UK Royal College of physicians bemoaned in 2010. The list is neither stringent enough, nor is it feasible with firms lobbying to get health research and treatment beneficially focussed. Further, the UK's positive list is being steadily eroded by factors such as the current British government's "cancer fund" to side-step the NHS's veto on stratospherically ineffective cancer drugs essentially unchecked for their adverse effects.

How do we end taxpayers contributing by direct subsidies, indirect subsidies and other measures to such demerit goods, as may be around 99% of prescription drugs in Germany and the US? How do we rescue government budgets from their escalating prescription drugs out-payments? Pope forthcoming presents the scope for a winning reform coalition that beneficially re-deploys the armies currently employed in commercial drug trials and the even larger armies currently employed by pharmaceutical firms as detailers (persuading clinicians,

²⁶ This is analogous to the law-suit now under way in the US that its country's Food and Drug Administration is infringing the free speech of the patent drugs firms. It allegedly infringes free speech by attempting to bar what it deems misleading and life-endangering advertising to clinicians and to the public at large for many patent drugs. It might be thought that these German insurers should have won the case because the patented pills industry is very far from perfect competition and countervailing power by the health insurers would be highly desirable.

some by talking, some with small financial inducements, others with massive ones, to prescribe the firm's set of patent drugs).

7. The interwar years following the private finance sector bubble

The damage from the 1920s private sector financial bubble did not end with that bubble starting to burst in 1929. The 1930s indicate that the waste from unproductive private sector financial expansion could be followed by over a decade of damage from exchange rate floats, by the freezing up of international capital and trade flows (such that even today, international capital market are less integrated than early last century), and the risk of jobs-generating dictators gaining power. A grand world war could reduce the payback period down from half a century to about a mere decade. Employment in the two big countries most devastated by the 1929 financial markets crash, the US and Germany, was restored by redistribution of income away from the very rich, and by preparations for, and participation in, a world war.

As regards the US, Robert Gordon and Robert Krenn (2010), however, document that it was only 18 months before Pearl Harbour (almost mid 1940) that armaments build-up became a massive fiscal stimulus in the US, citing reports such as the below:

“National Defense has become the dominant economic and social force in the United States today. It has created a new industry – armament – the ramifications of which will reach into every phase of our business life, and bring increased employment, higher payrolls, widening demands for machinery, and the construction of new factories.” *Business Week* June 22, 1940

The result of delayed and inadequate fiscal stimulus was that in 1939, in the US the number unemployed was still around 6 times that of 1929, whereas by then Hitler had reduced Germany's number of unemployed to 1/10th of its 1929 level. See Tables 2 and 3. Indeed it can be seen from these two tables that the US only reduced its number of persons unemployed below what it was in 1929 by 1943. With demobilisation (fiscal stimulus withdrawal), by 1946, the US rapidly suffered a trebling in its number of unemployed.

Table 2 Hitler elected 1933
thousands unemployed

	US	Germany
1929	1,550	1,899
1930	4,340	3,076
1931	8,020	4,520
1932	12,060	5,575
1933	12,830	4,804
1934	11,340	2,718
1935	10,610	2,151
1936	9,030	593
1937	7,700	912
1938	10,390	429
1939	9,480	119

Table 3 War then Demobilisation
thousands unemployed

	US
war	
1940	8,120
1941	5,560
1942	2,660
1943	1,070
1944	670
demobilisation	
	US
1945	1,040
1946	2,270

Sources: <http://www.dhm.de/lemo/objekte/statistik/arbeits11b/index.html>;
<http://www.census.gov/statab/hist/HS-29.pdf>

8. Averting a collapse like that of the interwar years

Economists may aid in averting a repetition of this war rescue 1930s scenario with concomitant dictatorship risks as in Keynes' 1920 forecast of the rise of Hitler. This danger is not entirely absent today when some countries are suffering extreme unemployment rates. Economists may aid in averting such a repetition if they include in their analyses major stylised facts such as:

- the pre-eminent role of fiscal, not monetary, stimuli in the US finally recovering its real GDP before its 1929 financial crash
- the risk of job-creating dictators arising,
- how wasteful private sector bubbles (cancers) damage growth, health, law and democracy
- the damage that exchange rate movements cause, and
- the danger of a global meltdown in inter-currency bloc capital and trade flows if central banks fail to cooperate in the (historically extraordinary) manner in which

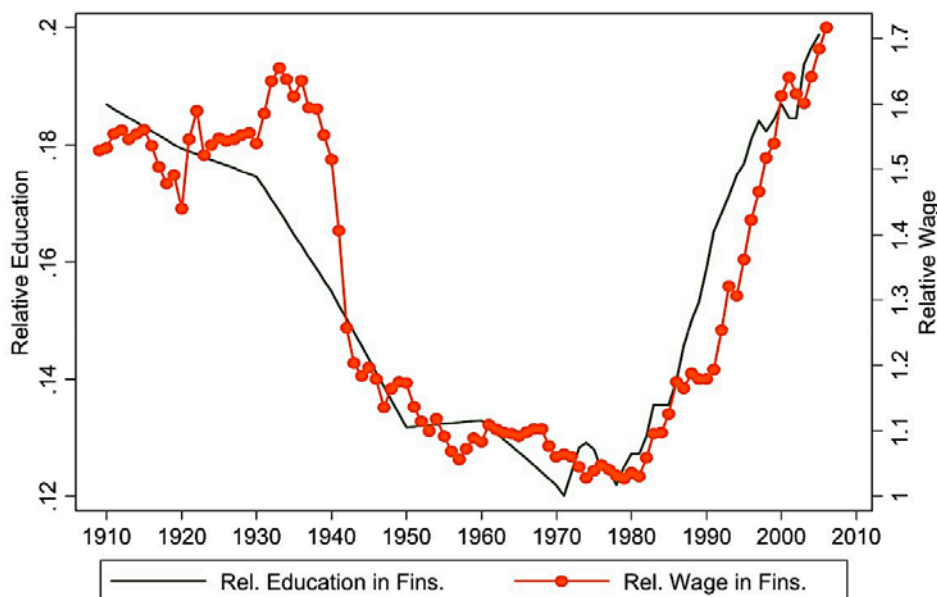
8.1. Excisions plus replacement stimuli

As regards the stylised facts of private sector wastage, new regulations should surgically and quickly prick the bubbles – promptly excising the malignant tumours in the finance and pharmaceuticals sectors. In a round table discussion at Vallendar Business School's Campus for Finance New Year's Conference 2011, upper echelon financiers including, Brady Dougan (heading Credit Swiss), agreed that the finance sector remains overblown three years after signs of the crisis emerged. The sector needs to contract, they suggested, to a half or a quarter of its current size (though others outside the sector, arguably with a more objective perspective, see a bigger drop required).

At the same conference, on the matter of a drop in inflated bankers' salaries, Axel Weber, since nominated as the incoming CEO of UBS, noted in answer to a question from Robin Pope, that it took a good 7 years after the 1929 crash for US bankers' salaries to start falling toward levels more comparable with their revealed productivity. In discerning bankers' productivity, Thomas Philippon and Ariell Reshef (2008, 2009) take the conservative benchmark that banker's actual productivity corresponds to others with comparable education and employment risks in each year between 1906 and 2006,²⁷ Figure 1.

²⁷ This is conservative as excessive bankers' salaries generate copycat excessive salaries in the upper echelons of the rest of the economy. For the key graph arising from Philippon and Reshef's data, and associated analysis of the banking sector's future, see David Rhodes and Daniel Stelter (2012) and Stelter (2012).

Figure 1: Relative Wage and Education in the Financial Industry



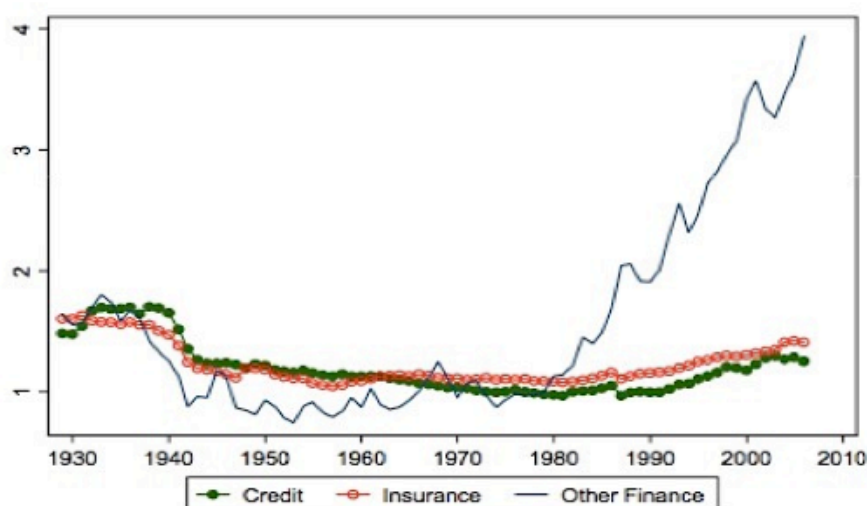
Notes: Fins. includes finance and insurance. Our concept of education is the share of employees with (strictly) more than high school education. Education (1910-2005) is computed from U.S. Census data, and from the Current Population Survey. Relative education is the difference in educated shares between Finance (Fins.) and the Non Farm Private sector. Wages (1909-2006) are computed from the Industry Accounts of the U.S., Kuznets (1941) and Martin (1939). The relative wage is the ratio of wages in Finance (Fins.) to Non Farm Private wages.

Source Phillippon and Reshef 2008, p48.

From Figure 1, it can be seen that at the beginning of the 1920s financial bubble, bankers' incomes jumped to be dramatically excessive, and kept escalating relatively until the US banking crises of 1931. By 1931 bankers' salaries were above their productivity by 30%, and took many years to decline at all significantly, only becoming non-excessive by 1945. The excess payments to those in the banking sector in the more recent financial bubble have been even more extreme. Payments were by 2007, 40% above productivity in the financial sector overall.

In the lead component of the financial sector, salaries were in excess of productivity by many multiples of this. See Figure 2 where it can be seen that the engine of inflated salaries is the category "other" (investment banking – Lehman Brothers, Goldman Sachs and so forth). From the beginning of the 1980s, this category rose first and created the contagion throughout the finance sector (and through the upper echelons in the real economy). In this other (investment banking) category, salaries were comparable to non-farm jobs in the real economy in 1980, but had risen to be 350% of their productivity by 2007.

Figure 2: Wages of Financial Subsectors (1926-2006).



Notes: Ratio of average wage per full time equivalent in the sector to average wage in the non farm private sector. Source: Author's Calculations and Annual Industry Accounts of the United States.

Source: Phillippon and Reshef 2008, p49.

The private financial sector in the 1930s and first half of the 1940s demonstrated how wastefully slowly it shrinks its own bubble level salaries. To judge from what happened in the prior 1920s financial bubble, taxpayers might need to wait almost 15 years for the excessive banking incomes and the ultra-excessive investment banking incomes to substantially evaporate. Transferring talent out of the financial bubble sector into societally valuable avenues is occurring, enhancing national productivity, Tett (2009), but more transfers are needed.²⁸ It is wasteful for governments to delay the private financial sector rationalisation and continue to permit as tax deductions salaries up to 350% of their efficiency. Governments can then afford salaries for financial regulators comparable to the salaries of those being regulated, ending practises such as the regulated providing lucrative sequel jobs in exchange for soft regulation.

Note that as regards the financial sector, it is not merely outside commentators who recognise that bankers' rewards have been excessive and that this private sector bubble constitutes a waste termed by some, including Paul Krugman (2008) and the *Financial Times'* Martin Wolf (2010), a great big Ponzi scheme. The scale of the waste is likewise recognised and admitted publicly by the very upper echelons of private finance, implicitly begging for regulation to reign in their destructive anti-social activities with an orderly shrinkage and redeployment of talent.

A comparable, or arguably more drastic, trimming of the patented prescriptions drugs industry is needed to enhance healthy choices. Pharmaceuticals however are far more complex and emotional than loans – even more emotional than loans for owner-occupied houses that risk foreclosures. Pharmaceuticals concern health and physical suffering, perceptions of life and death and commitments of health insurers on aids to citizens till death. Better regulations and better-enforced regulations of for-profit activities in much of this sector could succeed for a country populated by omniscient rational maximisers who care only for the good of their fellow humans. No country however has such a population, and while well into this millennium,

²⁸ Transferring talent out of the prescription drugs sector bubble has almost yet to begin, such are its continuing stratospheric salaries.

there has been progressive de-regulation of the financial sector, the same years have seen heroic highly varied efforts at better regulating patented for profit drugs trials and promotions. These have failed to achieve any enduring success, or even prevent a worsening of the wholesale distortion of people's choices away from healthy ones. A quite different approach is needed.

In summary, downsizing the cancerous components of the private sector financial and pharmaceutical sectors can ease the current taxpayers' burden of permitting as tax deductions the inefficient upper echelon compensation packages. When the financial bubble burst in 1929, it took until the end of World War II for the stratospheric salaries of bankers to decline back to what other white collar workers earned, Phillippon and Reshef (2008), Stelter (2012). Governments should not for the next 15 years continue to allow exorbitant payroll deductions to naturally evaporate.

Excising the cancerous components of the private sector would leave a vacuum, a wound of unemployment and non-education on healthy choices. The 1930s reveals that it is dangerous to wait for productive private sector activities to fill the vacuum that is left by this excision. It would be safer to adopt fiscal stimulus packages enhancing financially disinterested research, health, infrastructure, education, and the environment.²⁹

It is unsafe and unproductive to fill the vacuum as in the 1930s – with armaments. Governments moreover are often too timid to undertake such socially and globally productive public sector investments. Governments have an excessive tendency to believe that they cannot get re-elected if they attempt to solve unemployment by long term badly needed productive investments – that the population only endorses government expenditure on arms, the only exception to small government granted by neoliberalism. This fear is exaggerated, and can be false, as Glenn Withers and David Throsby (2001) discovered. They interviewed Australian voters on which government programmes they sought to have expanded and which contracted, in each case showing them the implied increase or decrease in their taxes to keep the budget deficit stable. Voters wanted an increase in spending on the environment, health and some forms of education and expressed willingness to pay for it. Voters at the same time wanted a decrease in military expenditures.³⁰

Socially and globally productive fiscal stimuli and reduced bubble sector salaries, are not the only policies needed to aid growth and health. These are aided by a democratic law-abiding society in which government is not hijacked by bubble sectors and others through an excessive concentration of wealth. In such countries one reason that government debt rises is simply because the upper echelons have such tax loopholes, being so in control of the government, as to pay no taxes.

Wealth should via tax be re-appropriated from the upper 1/4 of 1% who amassed most of the income gains over the last 40 bubble years. This is even admitted (stressing it is their personal view, not that of their employer), as the appropriate remedy by some top echelon bankers, e.g. Andreas Schmitz at the Vallendar Business School's Campus for Finance New Years' 2012 Conference. He did so after first presenting the financial sector view on wicked government sector debts, in answer to a question from Robin Pope. The wealth re-

²⁹It will be safer yet if all non-environmental forms of fiscal stimuli are devised with an eye for not further damaging the environment as it is endangered through past growth from unprecedented population growth and other factors.

³⁰ See also Withers and Edwards (2001).

appropriation has three advantages: 1) justice as the remaining 99.75% ought not pay interest on government debt arising from private sector bubble wealth not yet spent, 2) restoring a cohesive democratic society with laws less manipulated by the campaign contributions and lobbying power of private bubble components, 3) boosting private sector aggregate demand without raising its indebtedness when in fact the overwhelming amount of the current debt overhang is corporate plus household debt, not government debt.³¹ Boosting aggregate demand is pressing when otherwise the deleveraging private sector may need to save for the next fifteen years to return to viable debt levels, if the interwar years and Japan's experience in the last two decades delineate the damage of private sector deleveraging, Koo (2011). See also Rhodes and Stelter (2011).

8.2. Exchange rates

As regards the stylised facts on exchange rates, the horrors of the 1930s floats led to the Bretton Woods Agreement. Since that agreement's breakdown, a gulf has arisen between the real business sector suffering the horrors of exchange rate changes as in the 1930s, and academic economists who have become increasingly distanced from the real world, increasingly mesmerised by algebraic derivations. The gulf has arisen because the effects of exchange rate changes, in their multiple real and financial sector ramifications, are quite beyond the scope of algebraic and econometric techniques. This can be seen from the five glaring examples given earlier in this paper of disasters from exchange rate changes that are outside the average economist's vision.

These complexities can be captured to a greater degree in highly complex laboratory experiments. Such experiments can allow for the effects of personalities and their dynamic interactions, for the multiple different sorts of private and public sector agents involved in exchange rate determination. The experimental method avoids the necessity of making unrealistic behavioural assumptions for the sake of tractability such as maximising expected utility agents.

Complex experiments point to better macroeconomic management, with a statistically significant improvement in the maintenance of international competitiveness, with a single world currency, Pope, Selten, Kube and von Hagen (2008), Pope, Selten, Kaiser, Kube and von Hagen 2012. A single world currency can end the current risks to the US from switches in demand away from its currency to alternative currencies, the actual major risk for the US debt hampering the country's growth. The single world currency can in addition end economists making *unconscious* beggar-thy-neighbour exchange rate proposals that endanger economic cooperation, Pope (2009a).

The benefits from a single currency were recognised in the cases for currency unions of Courchene (1999), Courchene and Harris (1999), Grubel (1999), Grimes et al. (2000, 2001), Rose (2004) and Cooper (1984, 2006). They were also recognized in the cases made for a single world currency made in the wake of the East European and Asian currency crises of the late 1990s by numerous financiers, economists, politicians and journalists and journals, by the *Economist*, by Mundell (2003), by Bonpanasse (2006), by Teichrib (2008), by the Russian prime minister in his currency speech at the G8 meetings of (Media Resources) 2009, by the International Monetary Fund (IMF)'s Strategy, Policy and Review Department under

³¹ Rhodes and Stelter (2011). This paper in addition furnishes a computation of a one-time financial wealth tax to get debt reduction to what the authors deem a viable 180% debt to GDP ratio in key countries.

Duttagupta et. al in its *Reserve Accumulation and International Monetary Stability of 2010*, and by the United Nations Conference on Trade and Development in its *Trade and Development Report 2010*. The benefits from a single currency also connect to the proposal for a world central bank forwarded by Peter Turkson and Mario Toso (2011) for consideration at last year's G20 conference, at which, dangerously, exchange rate cooperation – let alone the security of a single world currency – did not get even the degree of attention it had two years earlier.

9. Conclusions

Benefits from introducing a single currency and from shedding the bubble (cancerous) components of private sector prescription drugs and financial instruments offer ways of inducing growth. These ways have solid evidence to back them. This is in contrast to divining tipping points in government debt based on miss-specified estimating equations. They are mis-specified in that they ignore three of the biggest dents in growth over the last forty years, those from drastic unpredicted exchange rate jumps, and from the bubble components of the prescription and financial sectors.

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Author contact: Robin.Pope@uni-bonn.de

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Science and Support: The Struggle for Mastery in Economics

Patrick Spread [United Kingdom]

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Abstract

The scenario for shifting the mainstream of economic theory from the neoclassical model to an alternative under the arrangements for the World Economics Association contrasts sharply with the conventional view of theory change through the methodical testing of hypotheses. This article suggests that the two approaches are both part of a process of intellectual support-bargaining involving the construction of theories by theory groups to advance their interests. A brief account of the theory of support and money-bargaining is provided, with particular reference to its significance for scientific method, the peer review process, and the 'herd instinct.' Under the theory, institutionalisation is used to strengthen bargaining positions through the use of hierarchies and money budgets. The ascendancy of neoclassical economics is understood in terms of institutional strength. It is understood as an outcome of intellectual support-bargaining in an isolated and insulated theory group advancing specific interests. Neoclassical theory has protected itself through the development of a methodology that emphasises the importance of its supposed strength in forecasting and minimises the significance of the weakness of its assumptions. The establishment of a new mainstream is seen as dependent on the emergence of a new and realistic theory of economic activity. The theory of support-bargaining and money-bargaining offers an alternative.

Keywords: Neoclassical; institutions; support-bargaining; scientific method; methodology; peer

Introduction

The conventional view of the pursuit of scientific knowledge, natural or social, is that the scientist observes phenomena, forms hypotheses about the regularities of the observed behaviour and designs tests to see whether the results of the tests are consistent with the hypotheses. The tests, and all data relating to them, are recorded in detail, so that other scientists can repeat the tests and confirm or refute any identified consistencies. With consistent evidence from this process in support of hypotheses, other scientists are expected to accept the hypotheses as proven. They become part of an assembled store of knowledge.

In the natural sciences, many of the phenomena of interest lend themselves readily to this procedure. They are stable, so they can be used in repeated tests (Spread, 1984, pp. 3-8). It is also possible to control fairly precisely, at least in a laboratory, for factors such as temperature and air pressure that might affect results. In the social sciences the phenomena of interest are not commonly so well suited to such testing. They may be ephemeral and are invariably encountered in settings of extensive 'noise' – other factors that cannot be controlled but which potentially have a significant influence on the outcomes observed. While the nature of the phenomena in the social sciences frequently makes the application of scientific method particularly difficult, the difficulties are not confined to the social sciences. Much natural science deals with obscure phenomena. Climatologists must deal with many potential causative factors. But even when the phenomena at issue do not lend themselves readily to it, it is still reckoned that the observation-hypothesis-testing-consistency-confirmation process should be followed as far as possible.

The complications relating to this 'established view' are not important here. What is important is that there is a well-trodden and well-accepted path that leads to the sort of knowledge that inspires the most confidence in its truth in great numbers of people.

In contrast, Fullbrook's (2010a) paper on 'How to bring economics into the 3rd millennium by 2020' describes a major economic institution, the American Economic Association (AEA), protecting neoclassical theory through the weight of its numbers and its control of five academic journals. The AEA is presented as the leader of a number of institutions committed to the maintenance of neoclassical economic theory. The movement has 'generals' and 'middle ranks.' It is presented as a tribe or cult. Fullbrook (2010a, p. 95) quotes a comment of James Galbraith:

The neoclassical trick is to insist that all "real economists" adhere to an arcane and limited set of techniques. The focus on conformity, on a bizarre hierarchy of journals, the dominance of the AEA at the annual meetings, all serve to define who is in the tribe, and their rank. Mainstream economics . . . is defined by who accepts the discipline of the cult.

Mainstream economic theory is cultivated and protected by a particular group, including particular institutions, which use it to sustain their ascendancy. The remedy, according to Fullbrook (2010a, p. 97), is to take advantage of the identified weaknesses of the established order – its nationalistic character and its old fashioned means of disseminating information – and bring about defections to a new organisation (2010a, p. 102):

Despite their atomist ideology, economists are, even more than most academics, herd animals. The site of a global organization larger than the AEA and with more subscribers to its journals will split the old herd, making the new one, with all its inherent diversity, economics' new mainstream.

The implicit analogy is with a political autocracy exercising power over a people, with a rival revolutionary group seeking to split the autocracy and take power. It is a struggle for mastery in economics analogous to the old struggle amongst the nation states for power in Europe. The way to bring about the downfall of political autocracy is to form a revolutionary force and confront the rulers at their weakest points. The way to bring down the AEA is to form a new international association.

Fullbrook's account could scarcely be more at odds with the conventional view of the advance of knowledge and understanding. On the one hand, scientists pursue the truth by subjecting their hypotheses to rigorous testing designed to root out misconceptions; on the other hand institutions compete for the adherence of economists and achieve success when their numbers are greater than those of other institutions. This paper suggests that the two contrasting approaches can be understood as different facets of intellectual support-bargaining. Both the conventional approach and the political approach to learning are part of intellectual support-bargaining. The purpose of both is to assemble support, for it is support that determines what effectively constitutes knowledge or truth. Theory-making is, furthermore, conceived as motivated by interest. One of the interests pursued is the truth about the world, because in knowing the truth we are potentially better able to arrange affairs to our advantage – that is, the advantage of the human race, but possibly also a more factional advantage. The use of scientific method has been devised to take us closer to the truth. But truth is only one of the interests that are pursued through intellectual support-bargaining. People also have interests in advancing the cause of their social group. Some will want to advance an individualist interest – individual freedom and reward for effort. Others will want to advance communal interests – compassion and equality. People also have interests in employment, careers and incomes. Some will aspire to be 'generals' of their tribe. Letto-Gillies (2008, p. 15) writes: 'All our authors need to use their reputation as published authors to access the next even greener field: the luscious field of academic jobs, promotions, grants

allocation.' Fullbrook (2010b) describes his encounter with the opulent high end academia of France's 'grandes ecoles', where he first presented his proposals for change. The pursuit of truth is tempered by other considerations of interest. Truth may be so elusive and so unrewarding a quarry as to be abandoned or neglected in preference for more tangible interests. Fullbrook (2010a) describes the competition for intellectual ascendancy, which is as much a part of intellectual support-bargaining as the pursuit of truth. What comes to be understood as truth depends as much on the assembly of support as on the testing of hypotheses. The latter is itself a means of assembling support amongst a certain type of participant in the support-bargaining process – those with a primary interest in establishing realistic explanations of the functioning of the world and human society.

Intellectual support-bargaining

Intellectual support-bargaining is part of a larger theory of support-bargaining as a socio-political process described in earlier work.¹ In brief, support-bargaining derives from a human sense of insecurity, which causes individuals to seek the support of their associates. Individuals adapt their opinions and behaviour to acquire the support of those around them. Groups form through support-seeking. The 'bargaining' element arises because individuals, whilst they seek support, want also to retain as much as possible of their own individual interest and inclination. They concede in opinion and behaviour only so much as seems necessary to gain the support they need. 'Democratic' systems of government can be understood as formal support-bargaining systems, using electoral structures to involve many people in the support-bargaining that determines governance. Intellectual support-bargaining is concerned with the creation of theories and ideas about society for the advancement of interest. The support assembled around theories and ideas can be applied also in political support-bargaining – the support-bargaining directly concerned with governance. So the theories developed have a direct bearing on political processes. Intellectual support-bargaining is carried on across society, but in its purest and most intense form it is carried on in institutions of learning. The creation of theory is inseparable from the theory groups that create it. Theories reflect the interests of the theory groups that create them.

The pursuit of interest involves the development of strength in support-bargaining. The major way of developing this strength is through organisation. Organisation permits the activities of a group to be focused through a hierarchy on purposes defined by leaders. The bargaining strength of organisations arises also because of their use of money budgets. The power deriving from support is supplemented in organisations through their capacity for money-bargaining. The concept of organisations includes institutions, in the sense of supervisory or representative organisations like the Bank of England or the American Economic Association, and institutions such as universities or the Church of England. Universities, as organisations,

¹ The main account is Spread, 2008, *Support-Bargaining: The Mechanics of Democracy Revealed*. Chapter 10 is specifically concerned with Intellectual Support-Bargaining. An earlier work, *A Theory of Support and Money Bargaining* (Spread, 1984), shows the theory in a formative stage, and describes academic work connected with it. *Getting It Right: Economics and the Security of Support* (Spread, 2004) deals mainly with economic aspects of the theory. An article, 'Situation as Determinant of Selection and Valuation', dealing with the effects of support-bargaining on consumer choice, was published in March 2011 in the Cambridge Journal of Economics. The article notes the potential link of the group formation arising from support-bargaining with the process of natural selection. This link is developed in a further work, provisionally titled *Survival of the Sociable: How support-bargaining allowed humans to survive and prosper* (Spread, Forthcoming). Three articles have been submitted to the *World Economics Journal*: 'Companies and Markets: Economic Theories of the Firm and a Concept of Companies as Bargaining Agencies'; 'Comparative Advantage and the Format of Companies'; and 'Adam Smith: Neoclassical or Money-Bargaining?'

focus the activities of their members on purposes defined by their leaders. They also operate money budgets, enabling them to pay their members for the services they render through the institution. On this understanding, Fullbrook (2010a) is identifying the institutional power of the AEA in sustaining the focus of academic economists on the neoclassical model. The 'generals' command; others follow, in their institutional affiliations, with varying degrees of authority, and enjoy the benefits, including pecuniary benefits, attendant on membership of organisations with strong bargaining positions.

The focus effect has meant that some universities have become identified with particular approaches to economics. Backhouse (2002, p. 316) records that in the last quarter of the twentieth century Chicago was the centre of orthodox free market economics, while Yale, Harvard and MIT were centres of orthodox Keynesianism. Austrian economics was centred in New York and Auburn universities. Nevertheless, Backhouse records that, 'The variety of the American university system was vital.' He concludes (2002, p. 307), 'If economics has become Americanized, there is a sense in which this is because the American academic system has been so large, so wealthy and so open to international influences.' Volume of support and the power of money have given American academics ascendancy in economics. The absorption of international influences is probably to some degree a reflection of the pulling power of money. In terms of intellectual support-bargaining, these developments exemplify the development of institutional bargaining position.

However, the full importance of institutional bargaining strength only becomes apparent when it is recognised that the ascendancy is built on the most insecure theoretical foundations. If the theory were solid, the institutional strength would not be particularly apparent; but when it is recognised that the theory is flimsy, the overwhelming importance of institutional strength becomes apparent. In the former case, the theory would be sustained by the kind of support that is attracted by demonstrations of scientific truth; in the latter case, it is the advantages of adherence to strong bargaining agencies that assemble the support necessary to sustain the theory.

Fullbrook (2010a) identifies the AEA as the 'enemy', and identifies its national character as an important weakness. The 'struggle for mastery in economics' then takes on the character of a struggle between nations. Support is attracted to the revolutionary flag for nationalistic as well as intellectual reasons. Flags flutter more bravely in a nationalist breeze than in intellectual wind. Neoclassical theory has already fought one successful campaign against Marxism and the Soviet Union. Lee's (2007) article on the dominance of mainstream economics in British universities makes it plain, however, that the neoclassical theory group is multinational. 'Economics' is still neoclassical theory in many British universities. Lee (2007, p. 322) notes a specific association of mainstream economic theory in Britain with 'the pro-market ideology adopted by the Thatcher, Major and Blair administrations since 1980.' Theory groups help to assemble support for political movements, and at the same time political movements help to sustain theory groups that reflect their values.

Scientific method and support-bargaining

Support-bargaining explains the scientific method outlined at the start of this paper as the response of scientists to an implicit awareness of the engagement of everyone in support-bargaining and of its likely consequences for the pursuit of truth. People are likely to be distracted from the pursuit of truth by their need for support. People will gain support by

producing theories that advance factional or personal interests in their community. Scientific method counteracts this tendency by prescribing tests and the replication of tests, so that several agents confirm results. The process is clearly intended to eliminate the possible distortions brought about by the support-seeking of any one agent. Scientific method requires that tests are meticulously recorded, so that they can be reproduced.

Of course, if the testers are all conditioned to observe and understand by reference to the same paradigm (cf Kuhn, 1970) or research programme (cf Lakatos, 1978), there will be distortion arising from group affiliation. Each individual tester will observe and interpret in accordance with the common preconception, which is at the same time the common interest. Scientific method is designed to eliminate the influence of preconceptions and generate knowledge that is mind-independent. But in practice knowledge can never be mind-independent. We have knowledge only in our minds and the nature of our minds will stamp itself on our knowledge. Support-bargaining takes as a psychological starting point the inclinations of our minds to seek security in the support of others.

Scientific testing cannot be understood in terms of the testing of a single hypothesis or a related group of hypotheses. The results of testing must be consistent with the hypotheses tested, but they must also be consistent with everything else that has become known through the exercise of scientific method. Consistency is the critical concern. The greater the range of phenomena that a theory can explain with consistency, the more likely it is to be a valid representation of mind-independent reality. This may be understood both as a single agent seeing consistency in the explanations of a great range of phenomena through a single theory, and also multiple agents seeing consistency across the range. Many agents seeing consistency in the explanations of a single theory across a wide range of phenomena will suggest that the theory is valid. Natural scientists require that results of tests are consistent over the whole of natural science. Social scientists tend to confine themselves to consistency within particular theory groups, where the rules of scientific method are adapted to the limitations of the phenomena. In some cases, the criteria for consistency are adapted within the theory group to ensure that it is not discredited.

Peer review and support-bargaining

Fullbrook (2010a, p. 95) sees the control of major economic journals by the AEA as a means by which its control of developments in economic theory is exercised. In the context of intellectual support-bargaining, peer review permits the theory group to vet what is proposed for publication. Reviewers are the immediate contact of the individual with the theory group. Ietto-Gillies (2008, p. 12) notes that individuals may be required, as a condition of acceptance – that is, as a condition of receiving the support of the group – to modify their paper. If they do not do so, the theory group rejects the paper. Proposers will normally concede to reviewers to get the support they need. They may add references on the suggestion of the reviewers, in order, effectively, to assemble support from the theory group. Ietto-Gillies notes, 'In extreme cases the paper may be damaged by the author's attempts to fit in comments by successive referees and indeed by adding bogus references in the attempt to ingratiate editors and reviewers...' The individual subordinates himself or herself to the group in order to get the required support. The bargaining position of proposers is weakened by the importance of publication to academic advancement, the time delays involved in moving from journal to journal, the frequently limited options for placing a specialist paper, and the large number of submissions that compete for the favour of editors.

This understanding of the process in terms of intellectual support-bargaining explains also the weakness of the system in accommodation of ground-breaking work (Letto-Gillies, 2008, p. 16; 2011, p. 8). These are papers that have no established theory-group. Unless they conform to the interests of the existing theory-group whose members are asked to review, they are likely to be rejected. This means not simply that ground-breaking work is likely to be rejected; it means, more importantly, that it will not be written. As a strategy for advancement, scholars are well-advised to stick with established theory groups (Letto-Gillies, 2008, p. 16). In economics, that means staying close to neoclassical theory. Lee (2007, pp. 322-3) describes how the mainstream economic theory group in Britain has been able to establish control of standards and criteria for 'quality' research in such a way as to ensure its continued ascendancy. Straying out of the mainstream means that research is more likely to be identified as of secondary quality, and its authors will not be so readily eligible for promotion as those who work in the mainstream.

The intellectual effort required to take on a new theory, or a new way of thinking, also constitutes an impediment to acceptance. As Letto-Gillies (2008, p. 12) notes, decisions on some submissions will be made on the basis of a quick read through. Most of the papers rejected following this screening will be of poor quality. But novelty may at first be difficult to comprehend. 'When refereeing, the reviewers will read a paper with the mind frame of the paradigm they are working under; what is presented to them may appear as strange, unusual, not properly researched; it may be something presented in a new and untried language or framework' (2008, p. 16). Careful attention is required. It may even be necessary to undertake background reading. Given the high risk of fruitless effort, the unpaid workload is likely to be unacceptable.

The herd instinct

Fullbrook (2010a, p. 102), in the quotation above on page 3, refers to the AEA and neoclassical economists as 'the old herd.' References to 'the herd instinct' are fairly common in academic literature but its nature is never specified. The phenomenon is easily understood in terms of support-bargaining. An individual advances an idea that looks likely to advance the interests of himself, or herself, and his or her associates. The idea is taken up within the group and, since the group is seen to be advancing, others join the group. People all go in one direction with the one idea. The group members convince each other that the idea is the answer they have all been looking for. Then some event occurs that casts doubt on the idea. A rival individual puts forward an alternative idea, and gains support. People begin to move away from the first idea and edge towards the second. At a certain point, the erosion of support erodes the confidence of the old group, and a trickle of defections becomes a torrent. The new group gains confidence from the build-up of its support. The new group, with the new idea, becomes ascendant. People move with the herd because it gives a sense of security, whatever the status of the herd ideas. The course of events, favourable or unfavourable to a particular idea, can influence the way support moves. To stem the ebb and flow that is associated with the herd instinct, a herd has to be corralled in an institution, so that its members have institutional incentives to stick with the herd idea. Through institutionalisation the life of an idea can be prolonged way beyond what science or the course of events suggest to outsiders is appropriate.

References to 'the herd instinct' have become common in recent years in the context of the behaviour of stock exchanges. Groups form amongst stock market investors with certain

ideas about how markets will behave. Mutual support within the group gives rise to confidence that the ideas can only be right, and shares are bid up on the strength of the idea. Then events show the ideas to be less than wholly valid, and support for the relevant shares is lost. This pattern of behaviour can be seen in the '.com boom' and subsequent 'bust' at the turn of the century. The confidence of investors in the idea that economists had developed mathematical techniques of pricing securities so that all risks were covered, coupled with confidence in free markets that forestalled regulatory intervention, probably played a part in the heavy investment in high-risk securities in the period before the financial crisis of 2007-9. What appears as the herd instinct is a consequence of support-bargaining.

Common theory

The association of theories with the groups that hold them gives rise to the idea of a common theory – a theory developed by common people for their own guidance in the conduct of their lives. It can, of course, immediately be questioned whether it is appropriate to regard the varied and disorganised jumble of ideas and beliefs that is characteristic of popular thought as amounting to a 'theory.' Even common theories might be too great a stretch. But if it is accepted that theories are inseparable from theory groups, then it has to be accepted that people form theories. At the most basic level, and hence most widespread, and hence most worthy of the name 'common theory', there are ideas about the passage of time, about distance, the nature of objects, the nature of humans, and the nature of existence, that are held broadly in common by humans and which have enabled them to survive. Many of the elements of common theory appear to be built into language. We communicate on the basis of common ideas which are embedded in language. Different language groups will then have different common theories, except in so far as different languages incorporate the same elements of theoretical understanding. Many do probably incorporate the same or very similar understanding of those basic ideas regarding time, space, the existence of objects and the nature of people.

The common theory then constitutes a basic 'world view' for all humans, including scholars seeking to develop more refined theories about issues relating to human interests in general or to factional interests. Everyone unavoidably uses this common theory or world view, if only on account of the necessity of expressing themselves in language. Some explicitly acknowledge that they will draw on it. Simon (1957, p. 198) writes,

Lacking the kinds of empirical knowledge of the decisional processes that will be required for a definitive theory, the hard facts of the actual world can, at the present stage, enter the theory only in a relatively unsystematic and unrigorous way. But none of us is completely innocent of acquaintance with the gross characteristics of human choice, or the broad features of the environment in which this choice takes place. I shall feel free to call on this common experience as a source of the hypotheses needed for the theory about the nature of man and his world.

In other words, Simon sees in common experience readymade hypotheses about the nature of the world which he is at liberty to draw on. It is, in effect, an acknowledgement of the necessity of drawing on an established common theory. The argument here is that everyone does it. Even Friedman in his article on methodology (1953, pp. 8-10, 40) acknowledges the overriding importance of 'experience' in the evaluation of theory. Ruccio (2003, p. 42) and Guala (2006, p. F320) criticise Lawson (1997; 2003; 2004) for his appeals to common knowledge in his exposition of the importance of ontology. But if our basic ideas about 'being'

are part of the common theory, Lawson can hardly avoid appeal to common theory when he discusses 'being.' Common theory constitutes the basic world view for Lawson, as for everyone else.²

Economic theorists draw copiously on the common knowledge of what goes on amongst traders, consumers and manufacturers. They draw informally on the buying and selling, the calculations of income and profit, the uncertainty and preferences that surround everyday deliberations. Yet at the same time they deny common theory any part in the neoclassical model. The neoclassical model is conceived very distinctly as a means of eliminating the misconceptions that hold sway amongst ordinary people. It purports to show that what seems right in common theory is not right in reason. The pursuit of individual self-interest, rather than personal benevolence, advances communal interest. The neoclassical model exalts reason above the emotionalism that is seen as dominating the ideas and actions of ordinary people.

Even the common theory of less than common people is rejected. Henderson (2001, p. 82; see also Spread, 2008, pp. 350-52) dismisses ideas on economics put forward by non-economists as 'do-it-yourself' economics and continues:

...what is in question here is not just 'popular economic fallacies', the uninstructed beliefs of ordinary and unimportant people. These same ideas are held with equal conviction, and expressed in much the same language, by political leaders, top civil servants, chief executives of businesses, general secretaries of trade unions, well-known journalists and commentators, religious leaders, senior judges and eminent professors – as also by economists themselves, in uninstructed or unguarded moments.

The ideas not just of common people, but of distinguished people, in their areas of practical expertise, are dismissed as of no significance. Henderson clearly regards himself as representative of the mainstream economic theory group and displays the self-assurance of a member of a group accustomed to the copious support of his peers. But notably, there are apparently times when economists cannot prevent themselves from expressing common theory. Neoclassical economics only makes sense within the theory group, where neoclassical economists assure each other that it makes sense. Let out on their own, economists may 'go native' with the common theory.

Retention of the neoclassical model

By reference to common theory, neoclassical economics makes no sense at all. Most obviously, it has no understanding of spatial issues and the problems of distance. It has no understanding of companies (Spread, Submitted WEJ 2012 (1)). It provides only the most rudimentary account of consumer behaviour. It assumes standardised homogeneous products. It assumes that everyone knows everything they need to know about all transactions, including future circumstances. It has no concept of infrastructure or communal action. It is conceived as a mathematical model and its components are shaped for purposes of mathematical manipulation. Hennings (1986, p. 240) writes, 'Just as the theory of consumer behaviour was thinned out to a minimal set of assumptions required to derive downward-sloping demand schedules, so the theory of producer behaviour was pared down to a minimal set of assumptions that would allow upward sloping supply schedules to be

² For a further account of common theory as a world view, see Spread, Forthcoming, Chapter 8: Common Theory and Personification.

derived.' 'Consumers' and 'producers' in neoclassical theory behave as they are required to behave by the mathematical exigencies of the model. Which means they are not consumers or producers at all, but figments of analytical convenience. It would be possible to define tests in accordance with scientific method whereby it could be determined whether distance has no relevance to economic transactions, but the operative tests are those of the common theory. We can see that overcoming distance costs money, time, effort and resources. Similarly, common theory tells us that firms do more than can be represented by a production function. Because of the fantastic nature of its basic model, economic theory and economists attract popular ridicule, recorded, for example, by Fullbrook (2010a, pp. 90-2), and before the financial crisis of 2007-9 by Hodgson (1988, pp. xi-xii) and Lawson (1997, p. xii, 3). It attracts also a great deal of sober criticism from both heterodox and neoclassical scholars (Lawson, 2003, pp. 8-11).

The retention of unreasonable and even fantastical beliefs is not rare amongst humans. They arise because the primary requirement is not for truth, but for support. As remarked in *Support-Bargaining* (Spread, 2008, p. 13), we can do without truth, but we cannot do without support. So long as an idea can attract support, it will be sustained. Ideas will attract support so long as they advance interests. The reasons for the longevity of neoclassical theory must first be sought in the interests it accommodates.

There is, first of all, its accommodation of an almost purely intellectual interest in study, with the understanding that the study is carried on in the pursuit of truth. The engagement is consistent with the highest principles of intellectual endeavour in western society. The origins of the western intellectual tradition in studies regarding the nature of deity has brought an assumption that the way to 'truth' is to insulate the cleverest people from everyday concerns and have them study texts that are regarded as sources of enlightenment. In an ecclesiastical context this is entirely appropriate, since the texts to be studied were regarded as deriving from divine inspiration. In economics, mathematics seemed to offer the best alternative to divine revelation. The idea of an objective, absolute truth, in accordance with the ecclesiastic concept of knowledge, was retained. Insulation from everyday concerns meant the development of an isolated theory group pursuing the truth using such means as were available to it within the institutional confines that were established. Outsiders, the common people, accustomed to looking with some awe on the researches of their institutions of higher learning, have assumed, at least until the present wave of ridicule, that something useful was being produced. As has been seen, the world within the institutions of higher learning accommodates other interests, besides the pursuit of truth, in the form of careers, incomes and prestigious positions at the head of academic hierarchies.

Besides the insulation deriving from institutionalisation, neoclassical theory has enjoyed the natural insulation provided by mathematics. Mediaeval theologians insulated themselves as theory makers from ordinary people through their use of Latin; neoclassical economists have escaped criticism from persons outside the theory group by claiming that those who do not understand mathematics are unqualified to comment. To a considerable extent, such is the status of mathematics, outsiders have accepted this claim. The success of mathematics in explaining the workings of the natural world has suggested that the application of mathematics to economic affairs might produce valuable results. The use of mathematics in economics developed with particular rapidity in the latter half of the twentieth century, increasing the isolation and insulation of the study of economics. Arguably, the trend towards mathematics represents a growing awareness of the weak conceptual foundations of the subject. A theory group expressing its ideas in plain language invites comment from

outsiders; expressing ideas in mathematical terms ensures that comment will be largely confined to those within the theory group.

The advance of interest through neoclassical economics has not been confined purely to the interests of those engaged in the theory group. The nineteenth century saw the start of the era of the common man. The elite classes of Europe felt threatened by the growing numbers of people and the advance of socialism and democracy. Economic theory provided a justification for keeping the state at bay. John Stuart Mill (1848) wrote in his *Principles of Political Economy*, 'Laissez-faire, in short, should be the general practice: every departure from it, unless required by some great good, is a certain evil.' As the century progressed, neoclassical economics gave mathematical expression to the merits of letting be – the exclusion of the state from economic affairs. In the twentieth century the confrontation between individual freedom and the omniscient state brought long-running conflict, both physical and ideological. Neoclassical theory played a prominent role in sustaining the creed of individualism. In the era of the Cold War, any dissent from neoclassical theory could be designated 'socialist' or even 'communist.' As the theory group behind capitalism, neoclassical economists celebrated ideological victory, or, as they would claim, vindication of their mathematical model, with the collapse of the Soviet Union in 1990.

The argument that neoclassical theory was sustained by interest rather than the pure force of its arguments is apparent in the compromises that were made within the theory group to ensure that it was sustained. Bruni and Sugden (2007) provide a detailed account of the compromises and subterfuges adopted to sustain a mathematical model that would give the ostensibly objective confirmation of the merits of individual enterprise that its creators saw would attract support. Marshall, who dominated economic theory from his position at Cambridge University for much of the first half of the twentieth century, was not above subterfuge. Hennings (1986, p. 230) writes, on the simplifications of 'his prolix and sometimes intricate analysis',

Marshall's hostility to those who, like Wieser (1884) or Wicksteed (1888), sought to base the cost concept on subjective evaluations with the help of the notion of opportunity costs, his decision to hide the general equilibrium framework of his theory behind partial equilibrium analyses and a rich tapestry of realistic empirical detail, and his penchant to minimize and even obfuscate theoretical differences no doubt invited such simplifications.

Neoclassical economists claim a rigour of analysis that sets them apart and above other social scientists, but close inspection of the claim reveals that it is hardly justified. Considerations relating to the assembly of support and the advance of interest have influenced the understanding of what can be accepted as rigorous within the theory group. Neoclassical economics, more than anything else, is a triumph of intellectual support-bargaining.

Development of neoclassical theory

The need for adjustments to the basic neoclassical model was apparent even to economists. It is hardly an exaggeration to say that, with the basic contours of the neoclassical model established in the late nineteenth century, economists spent the twentieth century trying to put it right. The model has been the subject of long-running discussions regarding its relevance to the real world, and how it might be adapted to make it more realistic. The discussions have been confined largely within the neoclassical theory group, since they are directed not so

much at illuminating the processes of the real world as reconciling the model as far as possible with the real world. They have been model-focused rather than focused on explaining the real world. With this programme, the theory group has been able to maintain its seclusion. The members have also been able to sustain their support for a model that, for outsiders, strains credulity.

The modifications and supplements have included those relating to asymmetric information, public goods, externalities, companies, consumer choice, market failure, rational expectations, transaction and contracting costs, information management, economic rent, the role of entrepreneurs, 'characteristics' of products, uncertainty and risk, demand deficiencies, and stock market behaviour. Distinguished careers have been built through work on these subjects. Couched in the vocabulary of neoclassical theory, and commonly formulated in mathematical terms, the basic commonplace is not apparent. The observations of the real world to which the modifications relate are such as are largely taken for granted outside the neoclassical theory group. It is their inconsistency with the neoclassical model that makes them matters of concern within the theory group. Only within the neoclassical theory group, for example, is it regarded as remarkable that sellers know more than buyers about their products, and may take advantage of their superior information. Even John Maynard Keynes's *General Theory* (1936) makes sense only as a corrective to the assumption of the neoclassical theory group that economic systems move to equilibrium at full employment. The commonplace becomes complex in the process of reconciling it with the neoclassical model. letto-Gillies (2008, p. 14), on the basis of work by Campanario (1998a, p. 195), notes that, 'Obscurity of the text seems to correlate highly and positively with acceptance into highly-rated journals.' Straightforward conditions of the real world are made complex in the attempt to reconcile them with a model that designedly misrepresents the real world for analytical convenience.

'Market failure' in particular has become a catch-all explanation for the many misalignments of neoclassical theory with observed behaviour. The neoclassical concept of a 'market' is impossible in practical terms, so any study of real-world markets by reference to the neoclassical model will necessarily conclude that the reality has fallen short of, or 'failed', the theory. 'Market failure' arises because 'markets' in the neoclassical sense do not exist. It is like describing a camel as an ugly consequence of 'unicorn failure'; or describing humans as having 'fallen from grace.' The implicit suggestion in all this process of modification is that the basic model is subject only to localised dysfunction. But in total the modifications confirm that neoclassical economics merits the ridicule it receives.

Forecasting and Prescription

Support for the neoclassical model has also been sustained because it so readily answers the social requirement for information about the future. Societies commonly have some recognised source of predictions about the future, whether it be an 'oracle', a 'soothsayer', astrologers or the entrails of a goat. In terms of support-bargaining, this agreed predictive function serves to sustain support within the social group and gives it confidence. Neoclassical theory offers a particularly sophisticated response to the requirement, well-attuned to a scientifically minded and educated populace. It is couched in mathematical terms. If mathematical patterns are strongly established, then there is no difficulty in extrapolating them into the future. Economists have fixed themselves firmly in the social

'establishment' by providing forecasts about future events, supposedly based on scientific analysis.

Economists have also been dependable sources of prescriptions, or at least a prescription, for the well-being of society. The idea of '*laissez-faire*' and 'free markets' is associated above with factional interest. But it is invariably presented as conducive to the health of society as a whole. Neoclassical theory implies that free competition will 'optimise' the allocation of resources in society. Few would want to reject a course of action that will bring such advantage to society. The diagnosis 'market failure' carries within itself the appropriate remedy: the institution of functional markets. 'Free markets' constitute a ready prescription for all times, all places and all spheres of economic activity. Economists have fulfilled an important social role by having always to hand an appropriate remedy for whatever problems arise.

Protecting the neoclassical model

Neoclassical economists have tried to adapt their model to closer consistency with the real world. But the underlying weakness of the model under any sort of scientific scrutiny has not been overcome. Some writers have expressed concern that a study that makes claims to scientific status ignores all scientific evidence of deficiencies. Latsis (1976, p. 11), for example, writes, 'The crucial question is the following: Is all awkward evidence to be regarded as either unreliable or reconcilable or can it serve a serious critical role?'

The main response of neoclassical economists to this lack of scientific credibility has been the creation of a distinct methodology for economics that specifically exempts it from the normal demands of scientific method and permits it to claim scientific validity on its own terms. Scientific method, as suggested above, is designed to divorce support seeking, as distinct from the pursuit of truth, as far as possible from the process of theory formation. Economic methodology, by contrast, is designed to protect the neoclassical model from the withdrawal of support that would seemingly follow necessarily from any moderately serious application of scientific method. Economic methodology is designed to protect rather than to test.

One form of protection is the argument that in societies there are so many contributory causal factors to any event that it is generally impossible to apply scientific method. Methodology based on this understanding pre-dates neoclassical economics. John Stuart Mill (1836) argued that, because of the multiplicity of causes, it was necessary to employ an *a priori* method. In this method, the laws governing relationships between various economic causes and effects are first identified, and their consequences are then investigated by deduction. Scientific 'testing' is used to check the deductions, but conclusions cannot be drawn from the testing, because of the inevitable presence of disturbing but unidentified causes (Hausman, 2008). Hausman remarks that, 'In defending a view of economics as in this way inexact and employing the method *a priori*, Mill was able to reconcile his empiricism and his commitment to Ricardo's economics.' Hausman further remarks, 'Mill's methodological views dominated the mainstream of economic theory for well over a century.' In a 1992 paper he (Hausman, 1992) argues that current methodological practice closely resembles Mill's methodology, despite the fact that few economists would explicitly defend it.

One of the most influential modern works on economic methodology argues that assumptions are irrelevant to the validity of a theory; rather success in forecasting, or prediction, is the

critical determinant of viability. It thus discounts precisely the weakness of neoclassical theory and emphasises the methodological importance of its supposed strength. It is by way of being a 'purpose built' methodology. It is a methodology constructed within the theory group to sustain and protect the interests of the theory group. Hausman (2008) remarks on Friedman's (1953) theory:

Philosophically reflective economists proposed several ways to replace the old-fashioned Millian view with a more up-to-date methodology that would continue to justify much of current practice...By far the most influential of these was Milton Friedman's contribution in his 1953 essay, 'The Methodology of Positive Economics.' This essay has had an enormous influence, far more than any other work on methodology.

Hausman (2008) recognises explicitly that neoclassical economists did not seek a methodology that would isolate the truth, but a methodology that would 'justify much of current practice.' It cannot be regarded as a scientific methodology, since it is designed to provide the results that are desired. Neoclassical economists have nurtured Friedman's 'methodology' as a protection against criticism on grounds of realism. As Hodgson (1988, p. 30) remarks, 'Neoclassical theorists have repeated these arguments to great effect within the profession, especially in rebutting the view that a good or valid theory must have realistic assumptions.' Hausman (2008) notes that some assumptions are also predictions. For example: 'firms maximise their profits.' He notes also that Friedman takes a narrow view of the predictions that are to be deemed relevant. He concludes:

So economists can simply ignore the disquieting findings of surveys. They can ignore the fact that people do not always prefer larger bundles of commodities to smaller bundles of commodities. They need not be troubled that some of their models suppose that all agents know the prices of all present and future commodities in all markets. All that matters is whether the predictions concerning market phenomena turn out to be correct. And since anomalous market outcomes could be due to any number of uncontrolled causal factors, while experiments are difficult to carry out, it turns out that economists need not worry about ever encountering evidence that would disconfirm fundamental theory. Detailed models may be confirmed or disconfirmed, but fundamental theory is safe. In this way one can understand how Friedman's methodology, which appears to justify the eclectic and pragmatic view that economists should use any model that appears to 'work' regardless of how absurd or unreasonable its assumptions might appear, has been put in service of a rigid theoretical orthodoxy.

Friedman's methodological theory is as absurd as the model it protects – Hodgson (1988, p. 50) refers to 'The scandal of this affair...' It provides a good example of how a theory can be protected within an institutionalised theory group by weight of support when it answers the interests of the group.

It is worth noting that economic forecasting is as much subject to compromise and subterfuge as the neoclassical model. Lawson (1997, p. 5) remarks that, '...economists frequently employ methods, practices and techniques of enquiry and modes of inference, that are inconsistent with the theoretical perspectives on method which they claim to draw upon.' Econometric forecasting is cited as the paradigm example (Lawson, 1997, p. 6). Lawson comments:

When their models are used to forecast unobserved (typically future) states of the economy, econometricians repeatedly make *ad hoc* revisions to estimated parameter

values, or introduce 'add on' factors, in order to generate results that are 'sensible' or 'believable', thereby contravening what Lucas designates the 'theory of economic policy' (Lucas, 1976).'

A forecast is then an assessment by the forecaster of a likely outcome, veneered with mathematical method. The confined nature of neoclassical theory making and the esoteric nature of mathematical tools mean that the profession finds itself free to make its own rules about what is scientifically, mathematically and ethically acceptable. It adopts practices which command support in the theory group, which are inevitably the practices which the group finds advantageous to itself.

Lawson (2003, p. 18) links forecasting failures with the absurdity of the neoclassical model in the following comment:

It is not only the case that modern economics mostly fails as a predictive and explanatory endeavour. It is also evident, and equally remarkable, that the mainstream project's theories are everywhere couched in terms of constructs that are absurd fictions, and acknowledged as such.

What if a pharmaceutical company were purveying products that had behind them only such quality of science, and such ethical tolerance, as is displayed in neoclassical economic theory? Hausman (2008) defends economic theory against the charge that it has made no progress in prediction with the comment, 'For example, contemporary economists are much better at pricing stock options than economists were even a generation ago.' The financial crisis of 2007-9 teaches the painful lesson that disregard for scientific principle can be toxic. Fullbrook's (2010, pp. 92-4) account of the responses of neoclassical economists to the crisis suggests that they intend to carry on in much the same way. The lesson has not been learnt.

The way to change

Fullbrook (2010, p. 97) suggests that the weaknesses of the AEA lie in its nationalist identity and its old-fashioned business model. He suggests, in the quotation above on page 3, that an organisation with an international identity and a business model based on the internet will bring defections from the AEA sphere of influence and create a new mainstream of theory.

Institutions, however, as has been suggested above, build bargaining strength both through the use of hierarchies and the use of money budgets. Backhouse (2002, p. 307) remarks that one reason for American ascendancy in economic theory is the wealth of the American university system. The 'pursuit of truth' to which academia is presumed to be committed implies that incomes, careers, etc. are not relevant considerations in academic debate, and consequently it seems irrelevant and offensive to suggest that they affect the work of scholars. But in the context of support-bargaining, where interests are a recognised focus of concern and institutions establish bargaining strength, it is not possible to ignore the important interest of everyone in providing themselves with the material necessities of life. The cohesion of American academia around neoclassical economics, such as it is (bearing in mind Backhouse's (2002) reference to diversity), probably owes much to the institutional careers that can be made by working with the neoclassical model. Lee's (2007) article on economics in British universities clearly associates advancement in academic economics with adherence to the neoclassical model.

This has an important bearing on the process of change. It implies that a new mainstream will be difficult to establish unless scholars see that careers can be made in the new theory. The institutional strength that sustains neoclassical theory depends on finance. It is then a precondition of change that those responsible for the funding of institutions, for appointments and for research grants recognise the importance of the new theory and ensure that it is funded. The new theory has to be institutionalised in universities around the world. The new arrangements of the WEA described by Fullbrook (2010a) will help to develop new theory and provide inducements for the herd to move away from its neoclassical commitments, but the critical migration is likely to occur only when the necessities of life are seen as deriving from the new theory rather than the old.

What is needed, then, is a theory that justifies the intellectual and financial commitment necessary for change to come about. Judging from earlier work (e.g. Fullbrook, 2004), Fullbrook would probably agree that, more fundamental than the institutional considerations, is the development of a realistic alternative to neoclassical theory. Fullbrook (2010a, p. 101) recognises in his 2010 article that, while pluralism in theory making is important, the displacement of neoclassical economics, '...will require a new cohesion of underlying economic ideas other than the neoclassical ones and which heterodox schools will in the main accept and, even more importantly, which their members will become in the practice of relating to their particular school of thought as they currently do with neoclassical ideas.' A unified theory is required, implying a unified theory group. Heterodox schools need to abandon their dependence on the neoclassical school, even if only as a 'sparring partner.'

Unification is only likely to be achieved if a theory is developed that is clearly and demonstrably realistic. Natural scientists achieve high levels of agreed consistency across many phenomena because their theory is always strictly related to reality. Something similar has to be the objective in social science. Each can construct his or her own fantasies, but there is only one reality, and a focus on realism provides the best chance of forming a unified theory group with a single theory. Furthermore, the more realistic, the more secure. It was noted above that support-bargaining, including intellectual support-bargaining, is motivated by concern for the security that derives from being amongst supportive colleagues. The security of realism provides the best prospect of assembling and sustaining support.

Realistic, in terms of support-bargaining, means theory that passes tests involving, as far as possible, the elimination of the effects of support-bargaining on what is accepted as 'known.' Scientific method implicitly aims to eliminate support-bargaining effects arising from the pursuit of support for interests other than the interest in truth. Knowing the dynamics of support-bargaining, it is possible to check hypotheses for the effects of support-bargaining. Thus, for example, phenomena must be seen and interpreted consistently by different theory groups. Any particular theory group will see and interpret by reference to its own interests and ideas. If many theory groups see and interpret in the same way, the probability rises that they are seeing and interpreting phenomena in the way that they are, independent of the observing minds. This process of cross-checking must include the common theory group, since for all its idiosyncrasies, it has sustained the human race. At the least, sharp departures from common theory have to be justified. This is the equivalent of repetitive testing in natural scientific method – it eliminates, or at least reduces, the risk of contamination of observations and interpretations by individual or group interests, incorporated in theoretical preconceptions, and the desire to assemble support around those interests. The widest ranging viewpoint, the common theory, is important to the assessment of the consistency of the multiple observations and interpretations.

This concept of methodology based on support-bargaining is consistent with the prevailing view that we can have no absolute knowledge. All our knowledge is mind-dependent, because we store knowledge in our minds. Where the phenomena permit, natural scientific testing is applicable as most likely to eliminate adverse effects of support-bargaining. But the nature of the phenomena of the social sciences is such that it is often impossible to apply strict scientific method. The understanding of support-bargaining assists in distinguishing the consequences of the desire to assemble support from realistic accounts of the phenomena at issue.

This methodological commitment means a complete break with neoclassical theory. Neoclassical theory fails most immediately the test of consistent observation and interpretation by different theory groups. It makes sense only to those within the neoclassical theory group. The financial crisis has caused outsiders to look more closely at the model that underlies the diagnoses, predictions and prescriptions of neoclassical economics. The reactions range from concern to consternation. It is clearly a creation of intellectual support-bargaining within an isolated and insulated group, advancing certain interests, and presented as scientific to attract support. Nelson and Winter (1982, pp. 405-6) comment on this isolation: 'One consequence of this linguistic and conceptual isolation is that economics today is quite cut off from its sister social sciences...For their part, scholars in the other social sciences tend to take a relatively hostile view of economic theory because they find it simply an unbelievable characterization of what is going on, inconsistent with what they themselves know.'

This is good reason for heterodox economists to end their use of neoclassical theory as primary reference. To the extent that heterodox theory derives from or depends on neoclassical theory, it is necessarily open to question, and must suffer from any demise of neoclassical theory. In so far as heterodox theory depends on the neoclassical model, it cannot provide an alternative theory. Neoclassical theorists have a point when they respond to heterodox criticism by acknowledging the weaknesses of the model but insisting that criticism goes only so far; what is needed, and what they might heed, is an alternative. As has been seen, a major function of theory in support-bargaining is to provide a sense of intellectual security. Criticism breaks down theory groups and reduces security. Before neoclassical theorists will leave the security of their group, they have to be offered a theory that can provide comparable security.

The theory of support-bargaining and money-bargaining offers an alternative. This paper may prompt the community to investigate whether it merits support as an accurate representation of the dynamics of human society and an accurate explanation of observed social phenomena. Beyond that, if it is found to merit support, there is much communal work to be done in reassessing social phenomena around the world in detail in the light of the new theory. Experience indicates that the theory can reveal new aspects of a wide range of social activity, not least the intellectual processes of theory formation.

The arrangements adopted for the World Economics Association (WEA) and its associated journals, the *World Economic Journal* and *Economic Thought*, provide a valuable framework for the development of new theory. They provide a forum for open intellectual support-bargaining, without the opportunities (or with much more limited opportunities) for the imposition of an 'orthodox' line by referees and editors, and for the rejection of dissenting opinion. Ietto-Gillies (2008, p. 18) notes that an open review system for academic papers would intensify the social aspect of research: 'These open debates should be positively

encouraged as a way of developing research; they are a way of recognizing that research is a social activity and the interaction of various researchers can aid progress.' Equally importantly, the system gives positive encouragement for new thinking, and is consequently likely to stimulate individual writers to think and write new thoughts.

Support-bargaining, including intellectual support-bargaining, involves not only cooperation between individual and group, but competition. As noted above, individuals must have support, but they want it as much as possible on their own terms. Individuals will want the support of referees, and will want the agreed improvements that referees can provide. But they will also want to retain as much of their content as possible against any impositions of referees. The arrangements of the WEA may be seen as improving the bargaining position of individual writers. Instead of dealing with just two or three reviewers, and finding himself or herself strongly obliged to accept their recommendations, the individual under the WEA system has more reviewers from whom to seek support, with a correspondingly greater chance of getting the necessary support. There is a greater chance that some among the reviewers will see the validity of novel theory than that one or two selected referees will see beyond their preconceptions.

Given the importance of observation and interpretation by multiple agents, the open process is clearly conducive to the emergence of truth. But it is not infallible. Support-bargaining makes plain that what is accepted as truth is what the group says is the truth. It discounts any claims that the objective can be reached. Nevertheless, if theory groups adjust their understanding in the light of the dynamics of support-bargaining, there is a chance that what is accepted as truth will not be far from the real thing.

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Is economics a science? Should economics be rigorous?

Paul Davidson [Journal of Post Keynesian Economics, USA]

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Many mainstream economists (e.g., Lucas, Cochrane) claim that the characteristics of a “science” require rigor, consistency, and mathematics. So if economics is to be a science it must display these characteristics. Paul Samuelson has added the claim that economists must accept the ergodic axiom in their models in their pursuit of economics as a science on par with physics, astronomy, and chemistry. Efficient market theory possesses all these characteristics. So how is it possible that efficient market theorists did not foresee the financial crisis that started in 2008?

Whether they declare themselves Monetarists, Rational Expectation theorists, Neoclassical Synthesis [Old] Keynesians or New Keynesians, the backbone of their mainstream theories is the efficient market analysis where the future can be known. For “Old” and “New” Keynesians the only thing that prevents efficient markets operating in the short run is the presumption of fixity in nominal wages and prices. [Thus, these “Keynesians” urge government action only because, as John Williamson is always telling me, they are too impatient to wait for the long run.]

To stimulate discussion, I wish to address two aspects of these mainstream economists universal beliefs. The first involves a discussion of the difference between a nonergodic stochastic process and an ergodic stochastic process for “knowing” the future. The second and related aspect involves the use of the deductive axiomatic logical analysis and mathematics by mainstream economists to glorify efficient market theory and the Arrow-Debreu-Walrasian general equilibrium or dynamic general equilibrium as the only way to do real world economics.

For example, to “prove” markets are efficient and the use of the Ricardian equivalence theorem to show that fiscal stimulus policies are useless— at least in the long run— requires the presumption that the economic system is “ergodic”.

Efficient market theory, Arrow-Debreu models, Ricardian equivalence, etc. require the households, business enterprises, and politicians to possess a significant correct and accurate message of things that are going to happen in the future if they are to make efficient (optimal) decisions today.

Why? Because time is a device that prevents everything from happening at once. Thus decisions made today usually require significant time to elapse before the payoff of the decision occurs. This is true not only for decisions involving investment projects by entrepreneurs, but also for most consumer decisions, such as the purchase of an auto or an ipad, or even a decision as to what restaurant to go to get a good meal for dinner. [How many of us have sometimes been disappointed in the meal we ordered at the restaurant?]

The message of efficient markets, Arrow-Debreu, Ricardian equivalence, etc. is inapplicable to the world of experience because in the real world, households do not have any significantly reliable information about the future, and neither do budgetary policy makers, nor entrepreneurs. The erroneous message based on the assumption of people having significantly reliable knowledge about the future is the result of accepting bad axioms as the

basis for mainstream theory. It is not the fault of using the deductive method, rigor, and mathematics *per se*. So do not blame the messenger for the message!

The ergodic axiom

First, let us take up the ergodic – nonergodic stochastic process distinction. Paul Samuelson [1969] has written that if economists hope to move economics from “the realm of history” into “the realm of science” they must impose the “ergodic hypothesis” on their theory¹. In other words Nobel Prize Winner Paul Samuelson has made the ergodic axiom the *sine qua non* for the scientific method in economics. Lucas and Sargent [1981] have also claimed the principle behind the ergodic axiom is the only scientific method of doing economics.

Following Samuelson’s lead, most economists (e.g., Cochrane, Stiglitz, Mankiw, M. Friedman, Scholes, etc) and economic textbook writers either implicitly or explicitly have assumed that observable economic events are generated by an ergodic stochastic process.

But not Keynes! Keynes [1936, p. 16] suggested the way to understand why classical economic theory (e.g., efficient market theory) is not relevant to the world of experience, when he noted that old economic thinkers were “like Euclidean geometers in a non-Euclidean world who discover that apparent parallel line collide, rebuke these lines for not keeping straight. 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”. Keynes developed a theory that is more general than classical and mainstream economic theory because it is based on fewer restrictive fundamental axioms². The fewer the number of underlying axioms, the more general the theory. The most important classical axiom Keynes eliminated in his general theory³ is the *ergodic axiom*.

This ergodic axiom assumes the economic future is already predetermined⁴. The economy is governed by an existing ergodic stochastic process. One merely has to calculate probability distributions regarding future prices and output to draw significant and reliable statistical inferences [information] about the future. Once self-interested decision makers have reliable information about the future, their actions on free markets will optimally allocate resources into those activities that will have the highest possible future returns thereby assuring global prosperity.

1. P. A. Samuelson,[1969] “Classical and Neoclassical Theory” in *Monetary Theory*, edited by R.W. Clower (Penguin Books,, London) p.12.

2. Keynes [1936, p. 3] stated that the classical economics fundamental axioms are applicable to a “special case....[that] happen[s] not to be those of the economic society in which we live with the result that its teaching is misleading and disastrous if we attempt to apply it to fact of experience”. This “special case” statement is even more applicable today, given the economic austerity discussions in Washington, the UK, Euroland, etc, and the export-led growth , i.e., mercantilist, policies pursued by nations such as China who are still enjoying an “economic miracle” in an otherwise depressed global economy.

3. Two other axioms that Keynes rejected are 1. Money is neutral (at least in the long run) so that changes in the quantity of money do not affect real outcomes, and 2. Gross substitution is ubiquitous and therefore liquid assets are good substitutes for real capital goods. (See Davidson , 2009).

4. Consequently, government action today can only delay, but not change the long run optimal solution already predetermined by free markets.

In order to draw any statistical (probabilistic risk) inferences regarding any universe, however, one should draw a sample from that universe. Since drawing a sample from the future economic universe is impossible, the *ergodic axiom* presumes that the economic future is governed by an already existing unchanging ergodic stochastic process. Consequently, a sample drawn from the past is equivalent to a sample drawn from the future. In other words, calculating the probability distribution from past statistical data sample is presumed to be the same as calculating the risks from a sample drawn from the future.⁵ This ergodic axiom is an essential foundation for all the complex risk management computer models developed by the “quants” on Wall Street. If the economy is nonergodic, however, then *these computer models are weapons of math destruction* [For deterministic models, the “ordering axiom” plays the same role as the ergodic axiom in stochastic models.]

For a technical explanation of the difference between ergodic and nonergodic stochastic processes one should read my book, *The Keynes Solution: The Path To Global Economic Prosperity* [Davidson (2009)] . For our discussion here we merely need note that, in essence, the ergodic axiom imposes the condition that the future is already predetermined by existing parameters (market fundamentals). Consequently the future can be reliably forecasted by analyzing past and current market data to obtain the probability distribution governing future events. In other words, if future events are assumed to be generated by an ergodic stochastic process (to use the language of mathematical statisticians), then the future is predetermined and can be discovered today by the proper statistical probability analysis of past and today's data regarding market “fundamentals”. If the system is nonergodic, calculated past and current probability distributions do not provide any statistically reliable estimates regarding the probability of future events.

New Keynesians such as Stiglitz accept the ergodic axiom as the basis of the economic system but then add additional ad hoc assumptions to try to tame this presumed knowledge of the future approach to better reflect what they believe is reality. Stiglitz, for example, in his asymmetric information theory assumes that some market participants cannot make the proper statistical calculations because they do not perceive the correct information about the future. In other words, Stiglitz imposes the asymmetric information condition that there are some decision makers who act while lacking the correct information about the (presumed to exist today) probability distribution of future events. Consequently these decision makers (speculative fools?) misread the future and thereby mess up the beauty of the efficient market system.

Nobel prize winner Robert Lucas [1981, p. 287] has boasted that the mainstream theory axioms are “artificial, abstract, patently unreal”. Like Nobel Laureate Samuelson, Lucas insists such unreal assumptions are the only scientific method of doing economics. Lucas insists that “Progress in economic thinking means getting better and better abstract, analogue models, not better verbal observations about the real world” [Lucas, 1981, p. 276]. The rationale underlying this argument is that these unrealistic assumptions make the problem more tractable and, with the aid of a computer, the analyst can then predict the future. Never mind that the prediction might be disastrously wrong.

In the introduction to his book *Against The Gods*, a treatise that deals with the questions of relevance of risk management techniques on Wall Street, Peter L. Bernstein [1996, p. 6] writes:

5. This is equivalent to thinking that drawing the sample of heights from a pygmy tribe in Africa is equivalent to drawing a sample of Swedish citizens' height.

“The story that I have to tell is marked all the way through by a persistent tension between those who assert that the best decisions are based on quantification and numbers, determined by the [statistical] patterns of the past, and those who based their decisions on more subjective degrees of belief about the uncertain future. This is a controversy that has never been resolved . . . to what degree should we rely on the patterns of the past to tell us what the future will be like?”

One would hope that the empirical evidence of the collapse of those “masters of the economic universe “ that have dominate Wall Street machinations for the last three decades has at least created doubt regarding the applicability of the ergodic axiom to our economic world. Even Alan Greenspan in testimony before Congress in October 2008 seems to be having second thoughts although he still has not completely changed his tune. Keynes’s ideas and Soros’s reflexivity concept support Bernstein’s latter group.

Samuelson, Lucas and others adopted the ergodic axiom because they want economics to be in the same class as the “hard sciences” such as physics or astronomy. For example the science of astronomy is based on the presumption of an ergodic stochastic process that governs the movement of all the heavenly bodies from the moment of the “Big Bang” to the day the universe ends. Accordingly probability analysis using past measurements of the movements of heavenly bodies permit astronomers to predict future solar eclipses within a few seconds of when they actually occur. Nothing Congress, the President of the United States, the United Nations, or environmentalists can do will alter the predetermined dates and time for future eclipses. For example, Congress cannot pass a law outlawing solar eclipses in order to provide more sunshine and thereby enhance crop production. In an ergodic world, all future events are already predetermined and beyond change by human action today. The future movement of the heavenly bodies can be known by anyone who has measured past movements and projected these movements into the future. There are no speculative fools, who suffering from asymmetric information, think Mars is going to crash into the earth.

George Soros has explained why the efficient market theory is not applicable to real world financial markets with a slightly different terminology than Keynes but conceptually in the same way. Soros (2008) wrote: “we must abandon the prevailing [efficient market] theory of market. behavior. ” Soros states that there is a direct connection “between market prices and the underlying reality [that] I [Soros] call reflexivity”.

What is this reflexivity? In a letter to the Editor published in the March 15-21, 1997 issue of *The Economist* Soros objects to Paul Samuelson insistence on requiring the ergodic axiom to make economics a science. Soros argues the ergodic hypothesis does not permit “the reflexive interaction between participants’ thinking and the actual state of affairs” that characterizes real world financial markets. In other words, the way people think about the market today can affect and alter the future path the market takes; the future is not predetermined. Soros’s concept of reflexivity, therefore, is the equivalent of Keynes’s rejection of the ergodic axiom⁶. Reflexivity means peoples thoughts and actions *create* the future, while

6. In place of the rejected ergodic axiom Keynes argued that when crucial economic decisions had to be made, decision makers could not merely assume that the future can be reduced to quantifiable risks calculated from already existing market data. Instead they depended on “animal spirits” since most animals do not know how to calculate the moments around the mean!

For decisions that involved potential large spending outflows or possible large income inflows that span a significant length of time, people “know” that they do not know what the future will be. They do know that for these important decisions, making a mistake about the future can be very costly and therefore

mainstream economists presume the future has already been predetermined and can be discovered by analyzing today's market fundamentals.

Non euclidean economic theory

In creating a "NonEuclidean" economic theory to explain why these unemployment "collisions" occur in the world of experience, Keynes uses the logical deductive method but he had to deny ("throw over") the relevance of several classical axioms for understanding the real world. The classical ergodic axiom which assumes that the future is known and can be calculated as the statistical shadow of the past was one of the most important classical assertions that Keynes rejected.

Keynes's general theory is a deductive method of analysis. Keynes's concept of uncertainty about the economic future requires the economic system to be generated by a nonergodic stochastic process. At the time of his writing *The General Theory*, Keynes did not know of the ergodic stochastic theory that was being developed by the Moscow School of Probability in the 1930s. Nevertheless in his criticism of Tinbergen's [econometric] method, Keynes [1939] wrote⁷ that Tinbergen's method is not valid for any economic forecasting because economic data "are not homogeneous" over time. Non homogeneity is a sufficient condition for nonergodicity.

Taleb's Black Swan concept attempts to explain market crashes as an event lying in the far off tail of an ergodic probability distribution. It should be noted that Knight's vision of uncertainty and Taleb's Black Swan concept are both based on the ergodic presumption for the economy. Taleb's Black Swan is an already predetermined outcome but the Black Swan event is so far out in the tail of the ergodic probability distribution that its occurrence is so rare that it is never likely to be observed— except in the long run when we will all be dead. Similarly Knight's applied his uncertainty concept to an event that is "in a high degree unique"⁸ and hence so far out in the distribution as to be observed perhaps only once in several lifetimes.

For Keynes, as well as for Soros, the belief that intelligent people "know" that they cannot know the future is an essential element in understanding the operation of our economic world. For decisions that involved potential large spending outflows or possible large income inflows that span a significant length of time, people "know" that they do not know what the future will be. They do know, however, that for these important decisions, making a mistake about the future can be very costly and therefore sometimes putting off a commitment today in order to remain liquid maybe the most judicious decision possible.

Our modern capitalist society has attempted to create an arrangement that will provide people with some control over their uncertain economic destinies. In capitalist economies the use of money and legally binding money contracts to organize production, sales and purchases of goods and services permits individuals to have some control over their future cash inflows

sometimes putting off a commitment by maintaining liquidity today may be the most judicious decision possible.

7. J. M. Keynes [1939], "Professor Tinbergen's Method" *Economic Journal*, 49, reprinted in *The Collected Writings of John Maynard Keynes* vol. 14, edited by D. Moggridge [Macmillan, London, 1973].

8. F. Knight, (1921), *Risk, Uncertainty and Profit* (Houghton Mifflin, New York) p.233

and outflows and therefore some control of their monetary economic future. It also enables other parties (business firms) to engage in money sales contracts with the legal promise of current and future cash inflows sufficient to meet the business firms' costs of production and generate a profit.

Households and business entrepreneurs willingly enter into money contracts because each party thinks it is in their best self-interest to fulfill the terms of the contractual agreement. If, because of some unforeseen event, either party to a contract finds itself unable or unwilling to meet its contractual commitments, then the judicial branch of the government will enforce the contract and require the defaulting party to either meet its contractual obligations or pay a sum of money sufficient to reimburse the other party for damages and losses incurred. Thus, as the biographer of Keynes, Lord Robert Skidelsky has noted, for Keynes "injustice is a matter of uncertainty, justice a matter of contractual predictability". In other words, by entering into contractual arrangements people assure themselves a measure of predictability in terms of their contractual cash inflows and outflows, even in a world of uncertainty.

Uncertainty, money contracts and liquidity

In their book, Arrow and Hahn (1971, pp. 256-7 emphasis added) wrote:

"The terms in which contracts are made matter. In particular, if money is the goods in terms of which contracts are made, then the prices of goods in terms of money are of special significance. This is not the case if we consider an economy without a past or future. . . . *If a serious monetary theory comes to be written, the fact that contracts are made in terms of money will be of considerable importance*".

Yet all mainstream models including the Arrow-Debreu model assumes people enter into "real contracts" i.e., they "know" the future real outcome with at least actuarial certainty of any contract they sign today. Thus intelligent mainstream economists such as Arrow and Hahn in emphasizing the importance of money contracts cannot help but let their common sense intervene in their view of the economy – to the detriment of their logical consistency with their general equilibrium (Arrow-Debreu-Walrasian) model.

Keynes's liquidity theory provides what Arrow and Hahn call "A serious monetary theory" for domestic and international transactions as a way of coping with an uncertain future.

Money is that thing that government decides will settle all legal money contractual obligations. An individual is said to be liquid if he/she can meet all contractual obligations as they come due. For business firms and households the maintenance of one's liquid status is of prime importance if bankruptcy is to be avoided. In our world, bankruptcy is the economic equivalent to a walk to the gallows. Maintaining one's liquidity permits a person or business firm to avoid the gallows of bankruptcy. [Yet as my good Monetarist friend Alan Meltzer has often told me "bankruptcies are good for the health of the capitalist system."]

Thus, liquidity is at the center of the operations of our monetary economy and therefore financial markets that are well organized and *orderly* permit decision makers to maintain liquidity in case some unforeseen future event should make it otherwise impossible to meet a future money contractual obligation unless they can readily sell a liquid asset for money in an orderly market system.

Keynes provided a NEW way of economic thinking to explain the operations of a monetary economy where entrepreneurs enter into nominal contracts in order to organize production and exchange activities. *The sanctity of money contracts is the essence of the capitalist system and Keynes's liquidity analysis*⁹.

In Keynes's analysis, liquidity, i.e., the ability to meet one's money contractual commitments domestically and internationally becomes an essential foundation for understanding the operation of our entrepreneurial economy. The primary function of well-organized and orderly financial and exchange rate markets is to provide liquidity so that holders of financial assets traded on such markets "know" they can make a fast exit and liquify their portfolio at a price close to the previous market price at any time they fear something bad may happen in the uncertain future. With sufficient liquidity, one can always meet one's money contractual commitments no matter what. The maintenance of one's liquid position is of prime importance if default and bankruptcy is to be avoided.

Once it is recognized that in a money using entrepreneurial economy decision makers "know" that the future is uncertain (in the nonergodic sense) and can be created in ways not even all decision makers understand, then the demand for liquidity as a security blanket to meet unforeseen possible dire net cash flow problems becomes paramount in decision makers' plans

In our uncertain economic world, by entering into forward money contracts, decision makers gain some control over their future cash inflows and outflows. If market participants think the future is more uncertain than it was yesterday, then they will try today to reduce cash outflow commitments for goods and services (save more) in order to increase their liquidity position. Faced with this reduction in market demand, businesses will reduce hiring of workers.

Blaming the messenger for the mainstream message

If the future is nonergodic, then mainstream economic theory is creating a completely artificial world remote from reality since the theory requires the ergodic axiom. Keynes [1936, p. 192] noted that classical theorists "offers us the supreme intellectual achievement, unattainable by weaker spirits, of adopting a hypothetical world remote from experience as though it were the world of experience and then lived in it consistently".

Mainstream economists are not wrong in the need for rigor in economic theorizing. It is not rigor and the use of mathematics *per se* that creates the useless economic models that make mainstream economists look so poorly. Rigor means that the only valid claims are logical deductions from specified assumptions [i.e., axioms]. Consistency and rigor are features of any deductive approach, which draws conclusions from a group of axioms – and whose empirical relevance depends entirely on the validity of the axioms.

Keynes applied rigor to his general theory – but only after he threw out three classical axioms that he felt had no empirical justification. So Keynes required induction in developing his theory to check on the validity of the axioms. Accordingly Keynes did not develop a

9. The first question for theorists, therefore, is: why are all production and exchange agreements – whether between entities in the same common currency area or between entities in nations that use different monies, sealed with contracts denominated in a specific money? Why are people in the world of experience not like the people of mainstream economic theory, where all contracts are in real terms?

completely artificial world. Unfortunately Paul Samuelson, who grasped for the Keynes mantle immediately after the Second World War, ignored Keynes general theory. As I point out in my book *The Keynes Solution; The Path to Global Economic Prosperity*, Samuelson has admitted that he found the General Theory “unpalatable” and incomprehensible. Samuelson said he merely assumed that the Keynes analysis was simply a Walrasian system with fixity of wages and prices. In so doing Samuelson aborted the Keynes revolution.

Since biblical times humans have tried to understand the world about them and what caused things that humans observed to happen. In general the human mind believes that there must be a cause for any event we observe.

For most of the history of mankind, it was believed that the design of God or the Gods was the cause of anything that happened in the world of experience. Beginning in the 17th century, however, philosophers believed that explanations of events that one observed could be developed on the basis of reasoning of the mind rather than religious belief. This was the beginning of the intellectual movement historians call The Enlightenment or The Age of Reason where order and regularity was seen to come from the human analysis of observed phenomena. The power of reason was not in the possession of truth, but in the acquisition of truth.

Any understanding of the world as humans perceive it will always be the creation of the human mind. Reasoning involves the mind creating a deductive theory to explain what people observe happening about them (using inductive views). For example, Sir Isaac Newton saw an apple fall from the bough of a tree to the ground. Newton explained why apples always fall to the ground by the theory of gravity.

A theory is the way humans describe real world observations on the basis of a model that starts with a few axioms (hopefully based on inductive reasoning from the world of experience). An axiom is an assumption accepted as a universal truth that does not need to be proved. From this axiomatic foundation, the theorist uses the laws of logic to deduce conclusions that explain what we observe in the world of experience. All theories are generally accepted in some tentative fashion. Theories are not ever conclusively established and can be replaced when events are observed that are deviations from the current existing theory. Thus, the financial crisis of 2007-2009 should have been sufficient empirical evidence to indicate that the axiomatic basis of the mainstream theory needs to be replaced.

Economic theory is an analytical device where the economic theorist builds a model by starting with some axioms that he/she accepts as a self-evident truth. The tools of logical deduction are then used to reach one or more conclusions. These conclusions are then presented to the public as the explanation of economic events that are occurring in the world of experience. The theory can then be used to suggest the cure for any real world economic problems.

Accordingly, it is perfectly acceptable to have rigor and even math in economic models – as both Marshall and Keynes had. But the axioms underlying the model must be thoroughly examined to see if they are applicable to the real world. What Samuelson, Lucas and others have done is impose axioms, such as the ergodic axiom, that have no relationship to the world we live in.

Keynes's general theory is rigorous and consistent – and once one recognizes that the future is uncertain in terms of a nonergodic stochastic process, then one can understand the self-interest of individuals is to protect themselves from an uncertain future where bankruptcy can occur if one cannot meet one's money contractual obligations in a capitalist system.

Thus money contracts (inflows and outflows) are used by individuals to protect themselves from adverse unmanageable net cash flows. The purpose of liquid assets¹⁰ traded on organized and orderly financial markets is to provide a security blanket against one's inability to meet a contractual obligation outflow.

Thus when the market for mortgage backed derivatives that were advertised to be “as good as cash” i.e., perfectly liquid (and triple A rated) collapsed, the loss of so much liquidity caused panic (a reflexivity response) in other markets for assets that had been previously thought to be very liquid. Asset holders in many markets tried to make “fast exits” and the result was a financial collapse and crisis.

In sum, Keynes's liquidity theory of the operation of financial markets is a rigorous, logically deductive system that appears to be applicable to the real world in which we live and should replace the artificial world model of Lucas and other mainstream economists.

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Author contact: pdavidso@utk.edu

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10. Keynes has an entire chapter in the *General Theory* entitled “The Essential Properties of Interest and Money” in which he specifically indicates that all liquid assets have certain essential mathematical properties, namely (1) the elasticity of production is zero and (2) the elasticity of substitution between liquid assets and durable producible goods is zero. Keynes specified these elasticity properties by induction via his knowledge of financial markets.

Endogenous¹ crisis and the economic paradigm

Wilson Sy² [University of Western Sydney, Australia]

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Abstract

This paper proposes that the global financial and economic crisis has a single cause underlying all other causes. The single cause is attributed to the economic paradigm which drives individual behaviour, business, government and education. We define the economic paradigm and explain its power to drive endogenous economic processes, ultimately leading to the course of events which is recognised as the crisis. The paradigm assumes that economic instabilities are exogenous events thus allowing governments to ignore processes with systemic risks which emerged from excessive debt and asset bubbles. We suggest that the solution to this and future crises requires a new economic paradigm, where understanding endogenous crisis is one of its central objectives. Economic theory without crises is like medical theory without diseases.

Introduction

The recent global financial and economic crisis (originating in developed capitalist economies) has called forth many causal explanations, including excessive credit growth, unsustainable asset bubbles, inadequate regulation, defective economic policies, executive greed, flawed credit risk models, rating agency frauds and so on. All these are considered as secondary causes, because the primary cause is that they were allowed, or even encouraged, to happen and to develop unchecked.

Many³ have sounded the alarm on the financial and economic imbalances which were growing throughout most of the decade and some have predicted recessions and crashes. So it appears untrue to say⁴ that “no one saw this coming” unless we carefully define what are meant by “no one” and “this”. The statement may be true if by “no one” is meant “no one in charge and has the power to act”, and by “this” is meant “the extensive and protracted crisis” which has occurred.

Hence the crisis was not due to a lack of recognition of growing economic imbalances and their potential to cause economic disruption. The crisis is not primarily about the deficiency of economic ideas, in all their variety, breadth and depth. Rather it is about how economics ideas are selected and implemented in policies which affect our lives. The crisis was due to a selection of ideas which over-estimated the resilience of the system and under-estimated its consequences by those who hold those ideas and have the power to intervene, but did not.

Government inaction is explained in this paper by the economic paradigm and its powerful effect on bureaucracy and the rest of society. As Keynes (1936, p.383) said: “The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else”. Below, we show that the economic paradigm formalizes and institutionalizes certain ideas into a powerful political framework, which has ruled the world for the past few decades.

Given the economic paradigm, this paper summarizes the endogenous processes of growth and acceleration of imbalances inside the economic system which ultimately led to the crisis. The endogenous crisis permitted by the economic paradigm provides a coherent explanation for why all the different aspects of the crisis have been allowed to occur. With a simple and

¹ Internally generated; created within the economic processes.

² The author thanks Carole Sladen, John Lodewijks and Eric Sidoti for helpful comments on an earlier draft of this paper.

³ Bezemer (2009) listed 12 economists who warned of unsustainable housing debt and recession.

⁴ Stevens (2008) asserted that “I do not know anyone who predicted this course of events”.

accurate diagnosis, we can suggest a simple reform which is a necessary part of the overall remedy.

Power of the paradigm

The word “paradigm” is commonly misused; it should mean much more than an idea, a theory or a model. We reserve the word “paradigm” to refer to an intellectual framework which most professionals in a given area of knowledge can take for granted in their discussions among themselves. Within a broad framework, a paradigm may contain many different theories or models to address different areas of particular interest.

A paradigm consists of a set of key questions to be addressed, a set of core assumptions and a set of standard methodologies, which are typically applied to an area of knowledge. A paradigm is rarely explicitly defined, but it is used implicitly for the convenient advancement of a subject. For example, significant contributions can be described in research papers of a reasonable length without having to repeat fundamental motivations and assumptions of the paradigm. This is particularly true for paradigm in the natural sciences, such as the physics paradigm.

Clearly, there can be only one paradigm in any subject, just as there can be only one king in a kingdom. The advantage of a single paradigm is that its development is self-reinforcing, similar to the “network effect”, where growth attracts more growth. This leads to more efficient advancement, an intellectual domination of the paradigm in any area of knowledge.

An adverse aspect of a paradigm is that new ideas outside the paradigm will be difficult to understand by most and, the greater the originality of the ideas, the greater will be resistance to acceptance. The monopoly-like power of a paradigm exists in many areas of research, where standard rejection (Shepherd, 1995) of original ideas serves to frustrate many who want to publish genuinely new ideas in “respectable” established journals.

Indeed, if a radically new idea is widely accepted eventually, it will be seen later as a new paradigm - not a modification, but a revolutionary succession (Kuhn, 1962), as in the proclamation, “The King is dead, long live the King!”

Orthodox economics as defined by the economic paradigm includes only a subset of all economic ideas, and excludes all other ideas collectively known as heterodox economics. The crisis has exposed the failings of the economic orthodoxy. But the solution cannot simply be about having better economic ideas offered at random, since some superior ideas already exist in heterodoxy, but are ignored. If heterodox economics is to have any influence in the course of world events, a subset of it has to become the orthodoxy. This paper identifies a key idea or element which is missing from the economic paradigm.

The economic paradigm

The economic paradigm which has been ruling the world for the past few decades is the neoclassical paradigm, also known by many other names, such as “free-market” economics, laissez-faire capitalism, economic rationalism, neoliberalism, etc. Before the 1970s, the economic paradigm was the Keynesian paradigm which was gradually displaced in the 1970s, when government macroeconomic policies were widely seen (Lucas and Sargent, 1978) to have failed to address the problems of high inflation and high unemployment.

By 1981, the anti-Keynesian paradigm was well established, when Reagan said in his inaugural presidential address: “In the present crisis, the government is not the solution to our

problem. The government is the problem". We will describe some limitations of government below and we will summarize here the key neoclassical ideas which drive government policy.

In the neoclassical paradigm, the general economic problem of resource allocation is to be solved by markets rather than by governments. This approach was seen to be validated convincingly by the 1990 collapse of the Soviet Union, which was held as the prime example of government resource allocation through central planning.

The key questions and objectives of the economic paradigm were to provide further theoretical and empirical guidance to help the market mechanism to improve economic efficiency. The general thrust of the paradigm development was to show that perfect markets need to be frictionless. Tax distorts capital structures of firms (Modigliani and Miller, 1958, 1963). Transaction cost (Coase, 1960) prevents efficient exchange of property rights and the efficient use of resources. Tariffs, subsidies and quotas lead to dead-weight social loss.

The core assumption of the neoclassical paradigm is that individuals make rational decisions in markets which, if allowed to operate freely without friction, are the most efficient mechanisms for resource allocation. In the most elaborate general theory (Arrow and Debreu, 1954), all markets could simultaneously reach a general equilibrium, where the utility (or welfare) of all individuals is optimized. The way to improve the optimal solutions is to expand the breadth and depth of markets to span completely all possible goods and services.

The ideal world envisaged by the paradigm is one with a complete set of frictionless markets spanning all economic needs of individuals. The economy is predicted to be most efficient where the welfare of all individuals is maximized through the markets. The paradigm does not include notions of equality or fairness, but merely asserts that everyone will be better off in an absolute sense than otherwise without markets. Income or wealth inequality is expected to cause a trickling down of wealth from those with more to those with less, leading to a situation of "rising tide lifting all boats".

Another core assumption of the paradigm is that the economy is sufficiently well described as being in a state of general equilibrium. Economic development of past decades is seen as a sequence of slowly evolving equilibria, where markets are more complete, with less friction. The standard methodologies of the economic paradigm are equilibrium analysis for theory, and mostly linear statistical analysis for empirical studies. The main tool for policy advice is comparative equilibrium analysis, where government policy shifts are assumed to lead to smooth equilibrium transitions from one to another.⁵

Rational individuals, using available information to pursue self-interest, were seen to be the foundation of entrepreneurial capitalism, resulting in efficient markets (Fama, 1970, 1991), a hypothesis (EMH) which dominates modern finance theory. The strong belief in general economic equilibrium with efficient markets led to a tolerance of a host of social, financial and economic excesses. Moreover, a belief that the economic equilibrium is inherently stable led to the assumption that shocks, bubbles and other instabilities must originate only externally to the economic system and that they cause only minor fluctuations which either fade away by themselves or have to be managed afterward.⁶

Another core assumption is that financial market fluctuations can be managed by appropriate monetary policy which, in any case, does not have long-term impact on the real economy, in a

⁵ The previous chairman of the US Federal Reserve (Greenspan, 2007, p.367) noted: "As I saw it, from 1995 forward, the largely unregulated global markets, with some notable exceptions, appeared to be moving smoothly from one state of equilibrium to another. Adam Smith's invisible hand was at work on a grand scale

⁶ Bernanke (2002) concluded, "More recent research has shown that attempted bubble popping by monetary policymakers played an even greater role in the onset of the Great Depression than we had thought."; see also Greenspan (2002b).

theory of “neutrality of money” (Lucas, 1995), where rational individuals can anticipate the impact of changes in monetary policy and take steps to neutralize its effects. Indeed, this gave rise to the belief that the Great Depression could have been averted with sufficient monetary stimulus (Benanke, 2002b), without harming long-term economic prospects.

In summary, the economic paradigm assumes the system to be a smooth-running machine which self-adjusts and operates in a stable equilibrium. It raises self-interest to a level of virtue which turned out to be harmful. By focussing mainly on equilibrium, the paradigm places importance on short-term flow concerns such as equilibrium economic growth, at the expense of long-term stock concerns such as debt levels and other accumulating economic imbalances. Moreover, the study of causality, where economic processes cause the economy to move from one state to another, becomes a secondary concern in comparative static analyses. By assuming that economic shocks, which could destabilize the system, are exogenous, unpredictable, but manageable with monetary policy, the economic paradigm precludes any serious study of instability and crisis.

Only key assumptions have been mentioned here, as it is not the intention of this paper to provide a full theoretical critique of neoclassical theory, which has been extensively dealt with in the literature (see e.g. Keen, 2011). With many apparent limitations and shortcomings, how did the economic paradigm survive challenges and criticisms from its economic peers?

Criticism and refutation

The neoclassical school is merely one of many schools, including post-Keynesians, Austrians and modern monetary theorists. Relative merits of different schools have rarely been discussed comparatively. The reason why they co-exist is due to a lack of definitive methodology to falsify and terminate theories, as is the case for the natural sciences. For example, in physics, many flawed theories have been rejected, leaving a clear general consensus on the best approach based largely on scientific merit.

Neoclassical economics has the appearance of being scientific because its theory has an axiomatic mathematical foundation (Arrow and Debreu, 1954), and statistical methods are used to analyse empirical data. However, the theory, like others, is mostly not confirmed by the data, because economic journals publish many papers where theory ignores the data and the data are analysed without theory. Hayek (1974) called this apparent science a “pretence of knowledge” or scientism.

Many others (Blaug, 1998; Bergmann, 2009; Solow, 2011) have also criticised neoclassical theory on its unrealistic assumptions. Milton Friedman (1954) considered “such criticism is largely irrelevant”, as “the notion of a completely realistic theory is in part a straw man.” He asserted that “theory is to be judged by its predictive power for the class of phenomena which it is intended to explain”. For him, what really mattered is whether a theory works better than its alternatives in explaining economic phenomena and in guiding public policy.

In the last three decades of the neoclassical paradigm, many government enterprises around the world were privatised, labour unions were weakened, subsidies and tariffs were eliminated, currencies were floated, international trade was expanded through globalisation, and financial markets were broadened through derivatives and so on. The two decades before the crisis were called (Bernanke, 2004) “The Great Moderation”, when macroeconomic volatility in both inflation and output declined significantly.

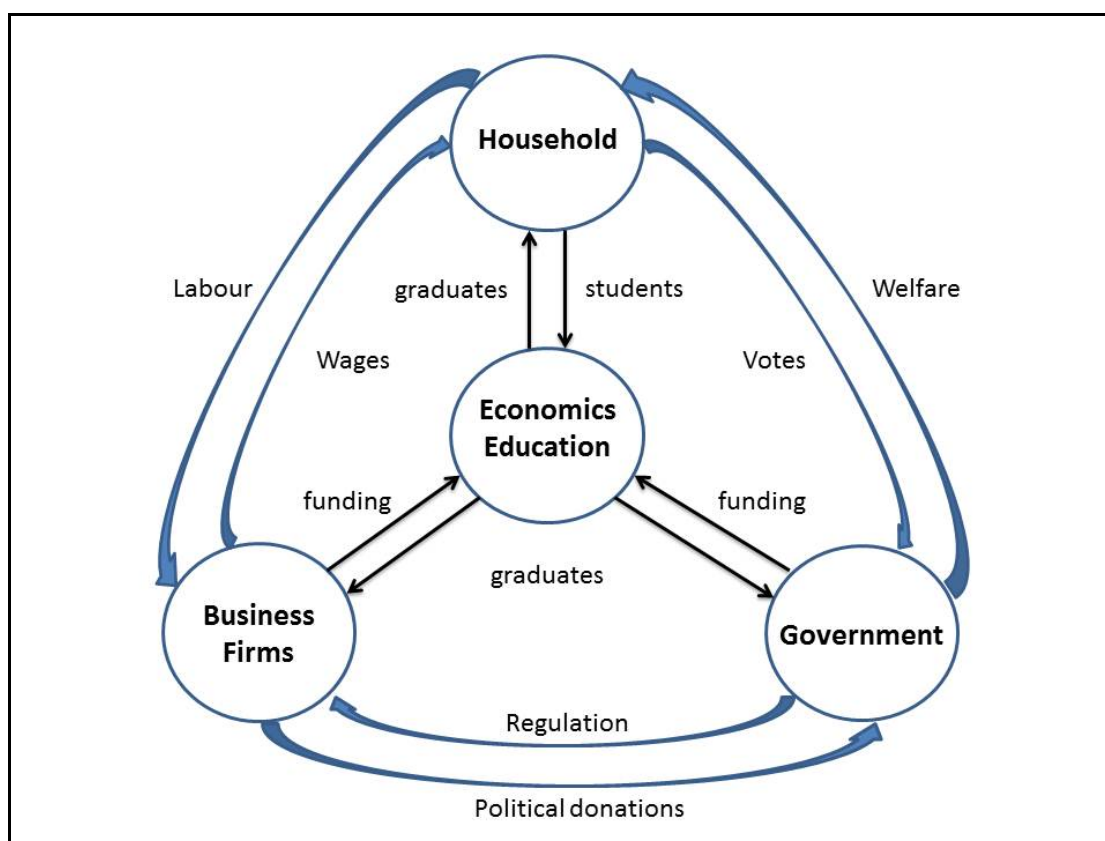
Economic orthodoxy interpreted this outcome as due to both beneficial structural change and effective monetary policy.⁷ Essentially, the neoclassical paradigm survives because there appears to be no practical alternative and because the paradigm appeared to work for the global economy. Despite many shortcomings, particularly when compared with empirical evidence - as we will mention below - why was there no other serious contender, thus allowing the neoclassical paradigm to become the clear consensus?

Manufactured consensus

Like other areas of human activity, the development of economic theories depends on resources allocated to it. Once a consensus has been created, it tends to be self-reinforcing, similar to the “network effect”. What we describe here is how the current consensus is manufactured and it is not meant to imply a universal process.

Figure 1 is a schematic summary of the main influences in the process of manufacturing of the consensus which is the economic paradigm. Similar processes also apply to create other paradigms as well.

Figure 1: Influences in the manufacture of consensus



Economics education has much greater impact than many realize. The sector includes university faculties, research centres and academic journals. It is placed at the centre of the manufacture of the economic consensus, because, as we argue below, new economic ideas

⁷ Greenspan (2007, p.368) said, “In many respects, the apparent stability of our global trade and financial system is a reaffirmation of the simple, time-tested principle promulgated by Adam Smith in 1776: Individuals trading freely with one another following their own self-interest leads to a growing, stable economy.”

are propagated from there. The economic paradigm embodies a selection of those ideas, which are taught to first year undergraduate students as “core” economic knowledge.

The economic paradigm gains its influence by being carried by graduates to all areas of society, providing the intellectual framework for public opinion and public policy. Advanced ideas at the frontiers of academic research actually matter far less than the graduates who are the vectors of the paradigm. The graduates may not always be aware of the role they are playing, because for the most part, they think they are at university to get the necessary qualifications for employment.

Employers are mainly in the business sector and they have significant influence on the manufacture of the consensus,⁸ through private sector funding and through their selection of graduates. For example, faculties will not receive grants and donations, and graduates will not be employed, if they are seen to hold economic views which are considered to be anti-business.

The government, which responds to voters, provides substantial funding to universities in an apparently unbiased way. But, over time, as government funding has declined in relative terms through applying the “user-pays” principle in smaller governments, the influence of private sector funding has increased. For example, the increasing demand by business that university research and education be “relevant” has seen a progressive commercialization of universities and education. Research grants from the government are now required to be linked to the industry.

Hence public policy framed through the economic paradigm is strongly influenced by business interests. Even so-called independent economic think-tanks which consult to government and business are not immune from the power of the paradigm, as they also have to work within the economic paradigm.

Business interests

Clearly business, particularly the banks, strongly favours the economic paradigm. Over the past decades, not only did many large government enterprises pass into private hands, but also many cooperatives were encouraged to demutualize, further expanding the private sector to become the main engine of growth of the economy. Deregulation or light-touch regulation to reduce market friction provided even more freedom and scope to exploit profit-making opportunities.

In discouraging complex objectives by business, such as promoting desirable social ends, Milton Friedman (1970) said: “The social responsibility of business is to increase its profits”. Friedman’s rationale argues that the executives of business have responsibility only to their shareholders and that anything with a social purpose is the job of civil servants and governments.

Maximization of shareholder profits also coincides with maximization of executive remuneration, as alignment of principal and agent interests is held to be good corporate governance. High executive pay is justified as efficient market valuation of the worth of executives, who are “doing God’s work” (Blankfein, 2009). Indeed, those executives and their traders, with high volume principal trading, are seen to be creating liquid capital markets and

⁸ Mirowski (2011) suggests that this is true even in the natural sciences.

their high remuneration is the “efficient market” reward for their work to facilitate capital allocation.

Light regulation, great profit-making opportunities and enormous remuneration potential formed a business environment which most executives favoured so strongly that they were prepared to fund elite economic departments and prestigious academic journals to educate the public on the merits of the economic paradigm.

Education and business

As university education became more commercialized, it became easier for business to select the economic curriculum from a range of contending alternatives. Profitable businesses, particularly those from the financial services industry, provide funding to selected elite economic faculties and academic journals through endowments and donations. Quality and standards are further influenced by research grants, awards and prizes, particularly the Nobel Prize⁹ for economics. Once business funding defines and controls the criteria of excellence, it strongly influences the direction of research and the economic paradigm.

Also, the increasing proportion of business funding at elite universities led to increasing influence of business in setting education agendas. Indeed, education itself has also become more and more like a business, where financial independence from public support is seen to be more and more desirable.

Academics are controlled by metrics (Parkins, 2010) which are based largely on publications in ranked academic journals.¹⁰ Metrics influence hiring, promotion and tenure at universities. By controlling the content of elite journals, the economic paradigm is shaped and protected. For example, the efficient market hypothesis (EMH), which provides a powerful justification for the financialization of the global economy, has been well protected from discredit.

There has been an enormous amount of theoretical and empirical research falsifying the EMH, all of which have been classified by elite journals as “anomalies”, trivializing their significance. Thus the EMH continues to be taught at universities and continues as a valid assumption for the formulation of public policy, including Australian superannuation (Sy, 2011), market mechanism for carbon pricing, etc.

In summary, it is probably not an exaggeration to suggest that, through the education system, business has enthroned the neoclassical theory as the economic paradigm and at the same time the economic paradigm has empowered the influence of business. The citizens who, and the households which, mostly depend on business for employment, will largely comply with whatever facilitates getting jobs and advancing careers.

But does the suggestion that business and the economic paradigm are tightly coupled underestimate the role of government, which is still a substantial funder of education and research and therefore should have significant influence on the economic paradigm? Indeed, the proponents of the economic paradigm would assume that the government is well-resourced

⁹ The correct name is “The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel”. The 2011 Prize to Sargent and Sims is another endorsement of the economic paradigm.

¹⁰ There is little economic incentive to properly referee and review submitted journal articles.

and fully capable of passing rational and independent judgement on how economic theory is used in public policy.

Government and bureaucracy

How government really works is a mystery to most people, and there are obvious and less obvious reasons why the government does not make a serious attempt to lift the veil of mystery. This lack of understanding by the public leads to misplaced expectations and disappointments.

Not all governments are exactly alike in terms of their power and structure; hence they may be difficult to describe in general terms to the public. This is often not recognized. In fact, a general reason for the failure of Keynesian economics¹¹ is due to an over-idealized conception of government, which is the key player in macroeconomic theory.

In a modern state, even in a socialist one, a government is not always decisive in dealing with new challenges, as envisaged in macroeconomics, because it is not a simple, rational entity. A government is in fact a very complex organisation, composed of politicians and bureaucrats, many of whom pursue their own self-interests in the context of different employment settings with different political ideologies.

Politicians who worry about re-election are concerned about public opinion and the opinion of their voters. Government bureaucrats have become more and more politicized, in that they answer to the bidding of their political masters. Since its invention in ancient China, the civil service is designed for stability and continuity, which are achieved by a strongly hierarchical structure similar to a military organisation.

Sticking to rules and procedures is synonymous with being “bureaucratic”. It is a misnomer to call a government bureaucracy “public service”, if civil or public servants merely serve their immediate superiors, following their orders and instructions in a strongly hierarchical structure. What a government bureaucracy does is ultimately controlled by its head and the head is usually controlled, in turn, by a politician.¹²

It is understood that some individuals in government and the bureaucracy are motivated by a desire to do public good and to improve society. But they are restricted by what they can accomplish within the system, and in most cases they may have only a marginal impact.

Government work is generally targeted to specified goals and objectives, in the name of efficiency. Through the performance evaluation process, government employees are controlled and discouraged from thinking or working outside their agreed functions.¹³ In fact, much of the resources of a bureaucracy are spent in monitoring, managing and reporting on each other's activities.

¹¹ The current economic crisis provides a clear example where strong Keynesian stimulus has had little impact on US unemployment over the last few years.

¹² In Australia, for example, the prime minister appoints the secretaries of departments (PSA, 1999, p. 33), while the agency minister appoints the agency head (PSA, 1999, p. 38).

¹³ Von Mises (1944, p.77) said: “Government jobs offer no opportunity for the display of personal talents and gifts”. There is no economic rationale to “think outside the square”, because as Keynes said: “It is better to fail conventionally than to succeed unconventionally”.

Government bureaucracy has neither the resources nor the inclination to debate contending economic ideas. Because of their structure, modern democratic governments endorse, and work within, the economic paradigm. All regulatory reforms are required to be consistent with the economic paradigm. For example, Basel Accords are consistent with the neoclassical assumption that systemic risk to the banking system comes from exogenous shocks, which are unpredictable.

In summary, governments do not question the economic paradigm and, by applying it to their policy formulation, they also implicitly validate it. In other words, it is a common misconception that governments are gatekeepers who exercise independent thought¹⁴ or judgement to protect the public from all manner of economic distortions or misdeeds. In fact, not only did governments fail to see the crisis coming, they amplified distortions originating from flawed economic ideas and contributed to the endogenous origin of the crisis, as we discuss below.

Bubbles and crises

The global financial and economic crisis is a process driven by the logic of the economic paradigm; it is a process and not an event. It is certainly not, as Greenspan (2008) asserts, a single “once-in-a-century credit tsunami”; neither is it, as Paulson (2008) would have it, a “once-or-twice-in-a-100-year event” like an earthquake. The crisis is not an exogenous shock, but an endogenous, anthropogenic process, which gave rise over time to a sequence of events, some of which may be called “black swans” (Taleb, 2007), characterized by rarity, extreme impact and apparent predictability only in hindsight. Even with the benefit of considerable hindsight, some leading neoclassical economists (Lucas and Stokey, 2011) still maintain that the crisis was an unpredictable “bank-run” event due to irrational herd behaviour.¹⁵

We propose that the crisis, like other crises before it, is a process with a spontaneous origin, driven by businesses exploiting systemic weaknesses or opportunities to extract economic rent. By “spontaneous”, we mean being triggered by some new, not fully predictable development - e.g. a technological or financial innovation which enables existing opportunities to be exploited for abnormal profit (Schumpeter, 1934, Chapter IV). The economic paradigm encourages financial innovation but, at the same time, discourages regulation under laissez-faire capitalism, leading eventually to unmanaged systemic risk.

Each crisis has something sufficiently novel to capture public imagination: in 1987, it was junk bonds and portfolio insurance; in 1998, it was fixed income arbitrage and LTCM; in 2000, it was the information technology boom and Enron; in 2007, it was sub-prime mortgage securities, and so on. All these crises may be considered to have originated from the economic paradigm, which provided the moral umbrella to pursue self-interest by whatever inventive scheme, so long as no laws were seen to be broken.

Far from the previous crises being seen as warnings to prevent future crises, they were seen to validate the belief in the inherent robustness of the system. In the neoclassical paradigm,

¹⁴ Economic pluralism is probably unworkable in the current bureaucracy. Both business and government prefer graduates from elite universities, most of which teach from the same Harvard economics textbook by Mankiw (Fullbrook, 2009).

¹⁵ They said: “If enough people think the occurrence of sunspots signals a run on a particular bank, it will do so. And if so, who are we to say the sunspots are unrelated to the safety of banks?”

asset bubbles are assumed not to exist and they only appear to exist due to hindsight bias. Asset bubbles may also be seen to have beneficial effects, as Greenspan (2002a) said following the bust of the technology bubble: "The increased volatility of stock prices and the associated quickening of the adjustment process would also have been expected to be accompanied by less volatility in real economic variables. And that does appear to have been the case". In other words, increased financial volatility is considered to have been compensated by decreased economic volatility.

It is not surprising, since the economic paradigm assumes that asset bubbles do not exist, that there is relatively little knowledge about asset bubbles - and certainly, there is no commonly accepted model of asset bubbles to guide economic policy. So even if the policy-makers want to, there is no consensual basis to identify and alter the development of suspected bubbles. Consistent with others at the Fed (Bernanke, 2002a), Greenspan opined¹⁶ (2002b): "But whether incipient bubbles can be detected in real time and whether, once detected, they can be defused without inadvertently precipitating still greater adverse consequences for the economy remain in doubt."

If bubbles cannot be treated pre-emptively, then they have to be dealt with afterwards when they proved themselves to be bubbles by bursting naturally. In the aftermath of the dot-com bust, the Fed fund rate was lowered from 6.5 per cent in May 2000 to 3 per cent in September 2001, whereupon the terrorism attack in New York and the Enron debacle saw monetary policy eased further to 1.25 per cent in November 2002. In relation to these regulatory actions, Greenspan (2002b) said: "If the post mortem of recent monetary policy shows that the results of addressing the bubble only after it bursts are unsatisfactory, we would be left with less-appealing choices for the future."

The official approach and response to bubbles and crises are wholly consistent with the economic paradigm and its clear articulation probably invited creative forces to engineer new bubbles to exploit money-making opportunities, provided by the "Greenspan Put".

The endogenous crisis

"The results of addressing the bubble only after it bursts" were the low-interest rate policy and its fuelling of another bubble. The recent crisis is shown here to have originated endogenously from the US housing bubble which was stimulated by both the invention of mortgage-backed securities (MBS) in the mid-1980s and the repeal of the Glass-Steagall Act (1999), which allowed the growth of the "shadow banking" system.

The shadow banking system was necessary to supply the housing bubble with the rapid credit growth which would have been difficult under the regulated, traditional banking system. Mortgage securitization was a form of market-based lending, which is an unregulated alternative to regulated institution-based lending. The economic paradigm encourages market-based solutions in preference to institution-based solutions. The disintermediation of bank lending lowers the cost of capital and the cost of regulation in a new form of cheaper loans for borrowers.

¹⁶ One of leading academic developers of the neoclassical paradigm, Robert Lucas (2009), concurred: "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."

Serious flaws in the process of mortgage securitization were noted by Minsky¹⁷ as early as 1992. The mortgage originators who wrote the loans earned brokerage commissions, but were not the actual buyers or holders of the debt. The mortgages were pooled in a securitization vehicle, where mortgage repayments were collected, managed and passed through as coupons of mortgage-backed fixed income securities.

The ultimate lenders of mortgages were the buyers of mortgage-backed securities (MBS) who were mostly investment managers, pension funds and other institutional investors. These buyers had little knowledge of the underlying mortgages, but relied instead on the investment ratings by approved credit rating agencies. But the ratings from credit risk models were based on the neoclassical paradigm, where historical probabilities of credit defaults¹⁸ were simply projected to the future. No account was taken, because of the lack of data, of the deteriorating credit quality from the new origination process, with flawed incentives.

Without Glass-Steagall restraint, the traditional banks were able to use their established branch networks to increase substantially off-balance sheet lending through the originate-and-distribute model of the shadow banking system. By 2007, half of all outstanding mortgages (\$14.4 trillion) in the United States were originated for packaging as mortgage securities (FRB, 2008). As anticipated, a significant number of mortgages were of low credit quality, with names such as “sub-prime”, “Alt-A”, “non-conforming”, etc.

The economic paradigm assumes that markets are efficient because buyers and sellers are driven by self-interest to deal at best prices and, therefore, the transactions are assumed to reflect accurate competitive prices. However, in the actual market for mortgage securities, most of the transactions which took place were not the direct decisions of the ultimate lenders or securities buyers - who relied solely on investment ratings and thus suffered from information asymmetry.

Also, many borrowers may have been misled into taking comfort from their mortgages being approved because they thought knowledgeable lenders must have accurately assessed their capacities to service the approved mortgages. In other words, imperfect information and other market imperfections have led to inefficient markets with mispriced securities, as we learned subsequently when the markets later failed, with buyers withdrawing from the market due to significant unexpected losses.

Furthermore, since 1999 with legal certainty¹⁹ that the over-the-counter derivatives would remain largely unregulated, there was little impediment to the creation of innovative derivatives based on the rapidly growing MBS market, including collateralized debt obligations (CDO), credit default swaps (CDS) and other complex derivatives. The light-touch regulation was meant to facilitate risk management since, according to the regulator (Summers et al, 1999), “Over-the-counter derivatives have transformed the world of finance, increasing the range of financial products available to corporations and investors and fostering more precise ways of understanding, quantifying, and managing risk”.

Clearly, repeal of the Glass-Steagall Act and the limiting of regulation of over-the-counter derivatives were justified by the economic paradigm which encourages the minimization of

¹⁷ Minsky (1992) anticipated the endogenous origin of a mortgage crisis and had proposed a debt theory of financial instability.

¹⁸ Sy (2009) shows credit risk models suffer from the Lucas critique.

¹⁹ Attempts by the Commodity Futures Trading Commission to regulate OTC derivatives failed to pass the President's Working Group on Financial Markets in November 1999 (Summers et al, 1999).

market friction. We conclude that the government policies were instrumental in facilitating endogenous processes to fuel the US housing debt bubble which subsequently developed into the crisis. These government actions, which ultimately advanced the interests of business through the economic paradigm, are examples of regulatory capture.

Regulatory capture

Once the assumption of exogenous instability took hold, regulation appeared irrelevant and became vulnerable to capture by special interests. Indeed, when nominated by President Reagan as the new chairman of the US Federal Reserve in 1986, Greenspan (2007, p.372) confessed: "Avid defender though I was of letting markets function unencumbered, I knew that as chairman I would also be responsible for the Fed's vast regulatory apparatus. Could I reconcile that duty with my beliefs?" As it happened, his "libertarian opposition to most regulation" did not cause conflicts; on taking charge of the Fed, Greenspan (2007, p.373) later recalled: "What I had not known about was the staff's free-market orientation, which I now discovered characterized even the Division of Bank Supervision and Regulation".

In other words, for the past few decades, the world's most powerful and influential regulator did not really believe in the usefulness of regulation. Even as the US mortgage market was about to collapse in August 2007, the new Fed chairman Ben Bernanke (2007) observed, "I suggested that the mortgage market has become more like the frictionless financial market of the textbook, with fewer institutional or regulatory barriers to efficient operation." The free-market paradigm led to the financial deregulation mentioned in the previous section and to a tolerance of greed and fraud which lie at the systemic origin of the crisis.

The major indictment for fraud so far in this crisis led to a lengthy prison term for Bernie Madoff. It was not a success story of regulatory intervention, as Harry Markopolos had provided the Securities Exchange Commission (SEC) with well-researched and documented evidence of Madoff's Ponzi scheme many years before. The SEC did not act adequately: firstly, because the Madoff hedge fund used derivatives, which were unregulated; and, secondly, the SEC is a government bureaucracy which does not work outside its agreed jurisdiction (Sy, 2009).

An assumption of the economic paradigm is that fraud is impossible between rational individuals in well-informed markets. Even if fraud does occur occasionally against individuals, the paradigm assumes that it would not occur against large financial institutions - which are well-resourced and well-informed, and which the financial regulator recognises in the law as "sophisticated investors". However, the reality is quite different, as Gresham's dynamics operate in financial markets where bad firms committing accounting fraud, if undetected, will drive out good firms (Black, 2010).

Through institutional lobbying, the regulators (FASB, 2009) even changed accounting standards in order to save the financial markets during the crisis by allowing US banks, in their earnings reports, to set their own "fair prices" for their assets. The rationale for abandoning "mark to market" rules was that, when a market is "distressed", it becomes illiquid and therefore prices are inaccurate, no longer reflecting fair values.

After the Lehman Brothers collapse, in the congressional hearing investigating the crisis, Greenspan conceded (2008): "Yes, I've found a flaw. I don't know how significant or

permanent it is. But I've been very distressed by that fact." On derivatives and financial engineering, he said: "This modern risk-management paradigm held sway for decades. The whole intellectual edifice, however, collapsed in the summer of last year."

When referring to the demise of the Keynesian economic paradigm, Lucas and Sargent (1978) said: "... our intent is to establish that the difficulties are fatal: that modern macroeconomic models are of no value in guiding policy and that this condition will not be remedied by modifications along any line which is currently being pursued." Ironically, a similar thing may now be said of the neoclassical economic paradigm, where the core assumption of inherently stable and efficient markets has misguided policy in the financial sector.

A new paradigm

Without other alternatives, governments reverted to Keynesian fiscal and monetary stimulus to manage the "great recession" by using improvised measures to transfer enormous public wealth to shore up the private financial system, which has already proven to be seriously flawed. Paradoxically, Keynesian intervention has been used to bolster the neoclassical paradigm, where financialization still dominates. It is evident that there is no coherent knowledge to manage the current crisis. Proposed regulatory reforms, such as Basel III, are still based on the same paradigm, where the same flawed credit risk models are accepted and financial instabilities are assumed to be exogenous.

Some have called for a new economic paradigm, but as Stiglitz (2010) warned: "Changing paradigms is not easy. Too many have invested too much in the wrong models. Like the Ptolemaic attempts to preserve earth-centric views of the universe, there will be heroic efforts to add complexities and refinements to the standard paradigm. The resulting models will be an improvement and policies based on them may do better, but they too are likely to fail. Nothing less than a paradigm shift will do."

As we have discussed in this paper, a paradigm is a complex concept - with fuzzy intellectual boundaries - consisting of key objectives, assumptions and methods. Fortunately, creating a different paradigm does not require specifying immediately all the key components of a paradigm, which would be a difficult, if not impossible, task. Only a new key objective or a new perspective needs to be specified and the rest (assumptions and methods) will change to accommodate the new key requirement.

From the perspective of our paper, we suggest that an economic crisis was allowed to develop endogenously because the economic paradigm assumes that it would be impossible. Clearly, if we were to assume that an economic crisis can develop endogenously, then the neoclassical paradigm would have to change radically. An economy without crises is like a person without illnesses. Just as we need to understand diseases to avoid illnesses, we need to understand endogenous crises to avoid economic instabilities.

In understanding the endogenous origin of crises, the new economic paradigm will confront the reality of finite resources, which is at the core of what we mean by the study of economics. Infinite economic growth implied in neoclassical equilibrium would be impossible with finite resources. In fact, economics might actually become helpful in addressing humanity's pressing economic problems related to the issue of sustainability. To be relevant to the real world the new economic paradigm must also take friction seriously.

Conclusion

The global financial crisis has stimulated an enormous amount of debate in the media and many journal publications. The harsh reality is: most of these will have little or no impact on our lives, unless they are somehow incorporated in a new economic paradigm, which will form the foundation of future public policy. We have emphasized the critical importance of the economic paradigm, and how and why it is established.

Our contribution to the analysis of the crisis is to view the crisis as an on-going endogenous process driven by the economic paradigm. Our insight is that governments are politically and bureaucratically constrained by the economic paradigm and they may take policy steps which, while consensual, may actually amplify the flaws of the paradigm. We have provided evidence for this view through a collection of published statements made by key policy makers who justified their actions based on the tenets of the economic paradigm.

All proposed reforms so far, including Basel III, are necessarily still based on the current economic paradigm,²⁰ where systemic risk is assumed to arise from exogenous shocks. In view of our recent experiences, where we have provided evidence that the crisis may have been endogenous, we should at least entertain the possibility of endogenous crises, and treat with scepticism the regulatory reforms which make exogenous assumptions.

Economics and the economic profession need significant reforms in many areas (Fullbrook, 2010). Rather than examining a long to-do list or criticising the assumptions and methods of the economic paradigm, as others have done, we suggest the inclusion, as one of the central objectives of the new economic paradigm, the question: could economic instabilities be endogenous? There is a social imperative to answer this important question.

University graduates are the purveyors of the economic paradigm to the world outside academia. A significant first step in the direction of a needed paradigm shift would be to warn students of Economics 101 - particularly those at elite universities - that real-world imperfections could lead to economic crises, which are not discussed in their introductory textbooks. Pathology is as important in economics as it is in medicine.

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²⁰ Regulators are still assuming that the economy is a self-steering vehicle which, if correct settings are maintained, would allow the regulators take their hands off the wheel and let the economy direct itself. In reaction to the crisis, Basel III reforms are merely re-adjusting the settings of the machine, e.g. setting lower maximum leverage ratios and including off-balance-sheet assets in risk calculations.

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Author contact: sywilson@internode.on.net

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The euro imbalances and financial deregulation:

A post Keynesian interpretation of the European debt crisis

Matías Vernengo and Esteban Pérez-Caldentey¹ [University of Utah, USA and ECLAC, Chile]

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Abstract

Conventional wisdom suggests that the European debt crisis, which has led to severe adjustment programs sponsored by the European Union (EU) and the International Monetary Fund (IMF) in Greece and Ireland so far, was caused by fiscal profligacy on the part of peripheral or non-core countries and a welfare state model, and that the role of the common currency, the Euro, was at best minimal. This paper tries to show that contrary to conventional wisdom, the crisis in Europe is the result of an imbalance between core and non-core countries inherent to the Euro economic model. Underpinned by a process of monetary unification and financial deregulation core-countries in the Euro Zone pursued export led growth policies or more specifically 'beggar-thy-neighbor policies' at the expense of mounting disequilibria and debt accumulation in the non-core countries or periphery. This imbalance became unsustainable and this surfaced in the course of the Global Crisis (2007-2008).

Introduction

Conventional wisdom suggests that the European debt crisis, which has led to severe adjustment programs sponsored by the European Union (EU) and the International Monetary Fund (IMF) in Greece, Ireland and Portugal, was caused by fiscal profligacy on the part of peripheral or non-core countries and a welfare state model, and that the role of the common currency, the Euro, and the Maastricht Treaty (1992) was at best minimal.² In particular, the German view, as Charles Wyplosz (2010) aptly named it, is that a solution for the crisis involves the Eurozone's Stability and Growth Pact (SGP). The alternative view, still according to Wyplosz, is that a reform of the EU institutions is needed in order to impose fiscal discipline on the sovereign national institutions, since a revised SGP would be doomed to fail.

Both views, which dominate discussions within the EU, presume that the problem is fiscal in nature. In both cases, the crisis is seen as in traditional neoclassical models, in which excessive fiscal spending implies that at some point economic agents lose confidence in the ability of the State to pay and service its debts, and forces adjustment. Excessive spending, also leads, to inflationary pressures, and that would be the reason, in this view, for the loss of external competitiveness and not the abandonment of exchange rate policy implicit in a common currency. In other words, the conventional view implies that the balance of payments position is the result of the fiscal crisis.

¹ The authors are Associate Professor of Economics (University of Utah) and Economic Affairs Officer at ECLAC (Santiago, Chile). The opinions here expressed are the authors' own and may not coincide with that of the institutions with which they are affiliated.

² The Euro was initially introduced as an accounting currency on 1 January 1999, replacing the former [European Currency Unit](#) (ECU) at a ratio of one-to-one. The Euro entered circulation on the 1 January 2002. Seventeen out of 27 member states of the European Union use the Euro as a common currency. These are: Belgium, Ireland, France, Luxembourg, Austria, Slovakia, Germany, Greece, Italy, Malta, Portugal, Finland, Estonia, Spain, Cyprus, The Netherlands and Slovenia. Among these, Austria, Belgium, France, Germany and the Netherlands are referred to as core countries. Greece, Ireland, Italy, Portugal and Spain are referred to as non-core or peripheral countries. The member countries of the European Union that have not adopted the Euro are , Bulgaria, Czech Republic, Denmark, Latvia, Lithuania, Hungary, Poland, Romania, Sweden and the United Kingdom.

Finally, the conventional story also relegates financial deregulation to a secondary place in the explanation of the crisis.³ The idea is that if countries had balanced their budgets and avoided the temptation to create a welfare state, then excessive private spending would not have resulted from perverse public policy incentives, and investors and banks would have been more aware of the risks involved. So what is needed in Europe is a good dose of tough love. Non-core countries must adopt a realistic position regarding their fiscal accounts and ensure the compliance with the budget thresholds agreed in the Maastricht Treaty as well as renounce their welfare state objectives. A generalized commitment to fiscal discipline will allow Europe's economy to bounce back to its trend – often associated with some measure of the natural rate of unemployment – of its own volition, without the need of fiscal stimulus.

The old Treasury View, which Keynes and his disciples fought back in the 1930s, is alive and well not just in academia, but also in the corridors of power, in the Finance Ministries, Central Banks and international financial organizations that have been instrumental in the response to the crisis.⁴ This paper presents an alternative view of the European crisis.

It sustains that contrary to conventional wisdom, both the Euro, and its effects on external competitiveness and particularly on the management of macroeconomic policy (both fiscal and monetary policies), and financial deregulation are central to explain the crisis.

More precisely, arguing from an aggregate demand perspective, this paper shows that the crisis in Europe is the result of an imbalance between core and non-core countries inherent to the Euro economic model. Underpinned by a process of monetary unification and financial deregulation core-countries in the Euro Zone pursued export led growth policies or more specifically 'beggar-thy-neighbor policies' at the expense of mounting disequilibria and debt accumulation in the non-core countries or periphery. This imbalance became unsustainable and this surfaced in the course of the Global Crisis (2007-2008). Unfortunately, due to the fact that in a crisis governments must increase expenditure (even if only through automatic stabilizers) in order to mitigate its impact while at the same time revenues tend to decline (due to output contraction or outright recession), budget deficits are inevitable and emerge as a favorite cause of the crisis itself.

The remainder of the paper is divided into three sections. The next section describes and analyzes the process of financial liberalization, deregulation and integration in Europe and its effects on financial flows and on the banking system of core and non-core countries. The second section explains the contradictions inherent to the Euro economic model using simple but macroeconomic indicators. The last section provides some conclusions, and sorts out the facts and the myths about the European crisis. A central conclusion is that the solution to the European crisis requires a profound reform of the Euro institutionality and its core principles,

³ See Soros (2010) for a different view. Soros understands the European Crisis as a banking, rather than fiscal crisis. More recently Soros (2011) has argued that the European Crisis is a by-product of the 2008 Crash which forced the financial system to 'substitute the sovereign credit of governments for the commercial credit that had collapsed.' From here it follows that the crisis made the health of the European Banks became prey to the state of European public finances. Note also that in spite of the blame put on lax government finances there is broad recognition that European governments have injected significant bailout packages of the financial sector and that this was necessary. As of September 2011, available data for Ireland, Greece and Spain show that government's support to the financial sector net of its estimated recovery amounted to 38%, 5.4%, and 2.1% of their respective GDP. See, IMF, Fiscal Monitor, 2011.

⁴ For a survey of fiscal policy responses to the crisis see Pérez-Caldentey and Vernengo (2010).

not simply a fiscal or financial reform. It requires that the recycling of surpluses and that the burden of adjustment be shared by both debtor and creditor economies.

Financial integration/deregulation in Europe and the Euro

The road to financial integration in Europe began early in 1957 with the signature of the Treaty of Rome that set out the basics for the creation of a European Single market for financial services. However, in spite of several initiatives in this direction, the progress was slow. Only by the late 1980's and early 1990's, spurred by the Single European Act (1987), did most European countries embark definitely on financial liberalization strategy.⁵

During this time most countries lifted capital controls, deregulated interest rates and adopted the European Directives, which are considered to be a crucial step towards the foundation for the Single Market Program in banking and financial services.⁶ These were meant to harmonize rules, supervision and regulation of financial institutions, establish the principle of home country control and the so-called European Passport (branches and the provision of services across borders throughout the EC).⁷ (See Table 1 below)

Table 1				
Financial liberalization and integration in Europe prior to the introduction of the Euro				
	Lifting of capital controls	Interest rate deregulation	First Banking Directive	Second Banking Directive
Belgium	1991	1990	1993	1994
Denmark	1982	1988	1980	1991
France	1990	1990	1980	1992
Germany	1967	1981	1978	1992
Greece	1994	1993	1981	1992
Ireland	1985	1993	1989	1992
Italy	1983	1990	1985	1992
Luxemburg	1990	1990	1981	1993
Netherlands	1980	1981	1978	1992
Portugal	1992	1992	1992	1992
Spain	1992	1992	1987	1994
United Kingdom	1979	1979	1979	1993
Source: Buch and Heirich (2002)				

The thrust for financial deregulation was further pursued by the adoption of a five year financial harmonization program, the Financial Services Action Plan (1999) (FSAP).

The FSAP was meant to harmonize the EU Member States' rules on the whole range of financial services including securities, banking, insurance, mortgages, pensions and other forms of financial transactions through the implementation of 42 measures in these different areas. More specifically its objectives included: i) the development of a single market for

⁵ The Single European Act was signed in 1986 and came into effect in 1987.

⁶ Directives are legislative acts requiring member states to achieve specific results without dictating the means.

⁷ The first banking directive introduced the Single Banking License in 1989, a significant step towards the unification of banking legislation and regulation.

wholesale financial services; ii) the creation of open and secure retail markets; iii) the establishment of clear, efficient, prudential rules and supervision of financial services; and iv) the establishment of the conditions for an optimal single financial market.

Member country's commitment to the FSAP was reinforced by a series of initiatives including the Lisbon Agenda (2000), the re-launching of the Lisbon Strategy (2005) and the White Paper (2005). As stated in the latter: "Financial markets are pivotal for the functioning of modern economies. The more they are integrated, the more efficient the allocation of economic resources and long run economic performance will be. Completing the single market in financial services is thus a crucial part of the Lisbon economic reform process; and essential for the EU's global competitiveness."

Most of the measures of the FSAP passed the EU legislative process at the end of 2003 (See Kalemi-Ozcan et al. (2010)). The latest available public releases show that 25 out of 27 countries of the European Union had provided information on the entry into force of the directives of the FSAP ⁸.

The progress of financial liberalization is reflected in the Chinn-Ito index (2011), which is measures openness in capital account transactions. The higher is the value of the index the greater is the degree of openness of an economy to cross-border capital transactions. As table 2 shows, the level of financial openness increased systematically throughout the 1990s, reflecting the fact that European countries, but in particular the core and non-core countries (that is, countries that adopted the Euro as their common currency) became on average more 'financially open'. Both groups of countries reached the status of full liberalization after the adoption of the Euro.

Table 2				
European Union				
Chinn-Ito Index of capital account liberalization for selected country groupings 1990-2009				
	1990-1994	1995-1999	2000-2004	2005-2009
Core Countries	83.2	96.1	97.4	100.0
Non-Core Countries	19.5	80.5	96.6	100.0
Other Euro Countries	-37.9	-9.5	24.7	81.3
Non-Euro Countries	8.8	39.0	66.9	87.9
Note: The Chinn-Ito index is expressed in terms of its highest value for all countries considered in their sample. Thus a value of 100 means complete liberalization.				
Core countries include: Austria, Belgium, France, Germany, The Netherlands. Non-core countries include: Greece, Ireland, Italy, Portugal, and Spain. Other Euro countries include Estonia, Malta, Slovak Republic, Slovenia. Non-Euro comprise Sweden and the United Kingdom.				
Source: On the basis of Chin and Ito (2011)				

⁸ See, European Commission (2011) The countries that have not provided information are Bulgaria and Rumania. The directives for which there is no information on the date of entry into force include the directives on: takeover bids (2004/25); taking up and pursuit of the business of credit institutions (2006/48); capital adequacy (2006/49); transparency (2004/109); markets and financial institutions (2004/39) and money laundering (2005/60). Some of these are part of the Lamfalussy initiatives (directives 109 and 39). The money laundering is a complement to the FSAP. Since the global crisis the EU adopted post directives. See, http://ec.europa.eu/internal_market/finances/actionplan/index_en.htm#transposition

The process of harmonization and intra-European liberalization of flows was parallel to the process of establishment and introduction of the Euro, which came into effect on the 1st of January 2002. The establishment of a single currency and monetary union was based on the prior compliance with convergence criteria including inflation, fiscal, exchange rate and interest rate convergence set out in the Maastricht Treaty.⁹

Exchange rate convergence was meant to avoid the manipulation of the exchange rate prior to the establishment of monetary union in order to achieve an improved competitive position at the time of entry. The justification of inflation and budget convergence was the avoidance of an inflationary bias in the monetary union.

Fiscal convergence meant in practice that governments had to achieve a ratio of planned or actual government deficit to GDP at market prices equal or less than 3% at any time.¹⁰ The 3% budget sustainability criterion which was independent of the cycle combined with earlier legislation contained in the Pact for Growth and Stability (1997) required European countries to balance their budget or be in a surplus position in the medium run, i.e., countries had to run surpluses in good times in order to offset deficits in bad times.

Interest rate convergence is interpreted as a measure to limit arbitrage opportunities and, thus, capital gains and losses prior to the entry in force of the monetary union. However, this criterion is considered redundant (Kenen, 1995; De Grauwe, 2003). In fact financial deregulation, capital mobility and exchange rate convergence (and eventually the adoption of a unique currency) lead to nominal interest rate convergence. In this sense as put by De Grauwe (ibid, p. 136): "Once countries were expected to join EMU, long-term interest rates converged automatically." In addition, under interest rate parity theorem conditions, nominal exchange rate and inflation convergence were tantamount to real uncovered interest parity conditions.

The process of harmonization of EU financial legislation and regulation and the process of adoption of a single currency led to an increase in cross-border financial flows and as expected a process of convergence of interest rates. The growth of financial flows can also be ascertained by the expansion in the balance sheet in European countries. As shown in Table 3, the external position of member countries of the European Union (core, non-core and non-Euro included) banks *vis-à-vis* all sectors in assets and liabilities as percentages of GDP increased rapidly throughout the liberalization and the adoption of Euro period.

A similar phenomenon occurred with the evolution of the size of the capital markets (see Table 4). The size of capital measured in terms of GDP increased by more than a third in core

⁹ The four convergence criteria are defined in article 109j of the Maastricht Treaty (in its Chapter IV under the heading Transitional Provisions) and are explained in one of the protocols. The interest rate convergence criterion is defined as "the durability of convergence achieved by the Member State and of its participation in the Exchange Rate Mechanism of the European Monetary System being reflected in the long-term interest rate levels" and is explained in the protocols as follows: 'The criterion on the convergence of interest rates...of this Treaty shall mean that, observed over a period of one year before the examination, a Member State has had an average nominal long-term interest rate that does not exceed by more than 2 percentage points that of, at most, the three best performing Member States in terms of price stability. Interest rates shall be measured on the basis of long term government bonds or comparable securities, taking into account differences in national definitions.

See, <http://www.Eurotreaties.com/maastrichtec.pdf> and <http://www.Eurotreaties.com/maastrichtprotocols.pdf>

¹⁰ See article 109j of the Maastricht Treaty and the protocol on fiscal sustainability.

countries and more than doubled in non-core countries during the consolidation period of financial liberalization and regulation and following the adoption of the Euro.¹¹

Table 3 Growth in balance sheets in the European Union measured by the external position of banks (assets and liabilities) <i>vis-à-vis</i> all sectors as percentages of GDP 1990-2011 (Averages)			
Assets			
Period	Core countries	Non-Core countries	Non-Euro
1990-1995	47.40	22.52	58.97
1996-2001	61.96	55.74	76.40
2002-2010	118.31	96.15	131.37
Liabilities			
Period	Core countries	Non-Core countries	Non-Euro
1990-1995	41.79	19.89	63.26
1996-2001	63.40	60.31	84.35
2002-2010	102.44	107.22	148.44
Note: Core countries include: Austria, Belgium, France, Germany, The Netherlands. Non-core countries include: Greece, Ireland, Italy, Portugal, and Spain. Non-Euro countries include Sweden and the United Kingdom.			
Source: Locational Bank Statistics. BIS (2011). Table 2A.			

Table 4 Size of Capital Markets 1990-2009 as percentage of GDP in core, non-core and Euro Zone countries of Europe 1990-2009 (Averages)			
	Core	Non-Core	Euro Zone
1990-1994	1.61	0.79	n.a.
1995-1999	2.04	1.14	1.76
2000-2004	2.51	1.96	2.27
2005-2009	2.82	3.22	2.63
Note: Core countries include: Austria, Belgium, France, Germany, The Netherlands. Non-core countries include: Greece, Ireland, Italy, Portugal, and Spain.			
Source: European Central Bank (2011)			

The empirical evidence that has attempted to isolate the effects of financial liberalization and deregulation and that of the Euro on the increase in cross border flows, highlights the importance of both sets of policy but attributes greater importance to the latter (i.e., the adoption of the Euro). This is explained mainly due to the elimination of exchange rate risk due to the adoption of a single currency (Ibid). Recent evidence presented by Ozcan et al. (2010) indicates that bilateral bank holdings and transactions among the Euro area economies increased by roughly 40% following the adoption of the Euro.¹²

¹¹ Available evidence indicates that the majority of assets are nationally owned (75% according to Allen et al (2011)).

¹² Other estimates reach a much higher figure.

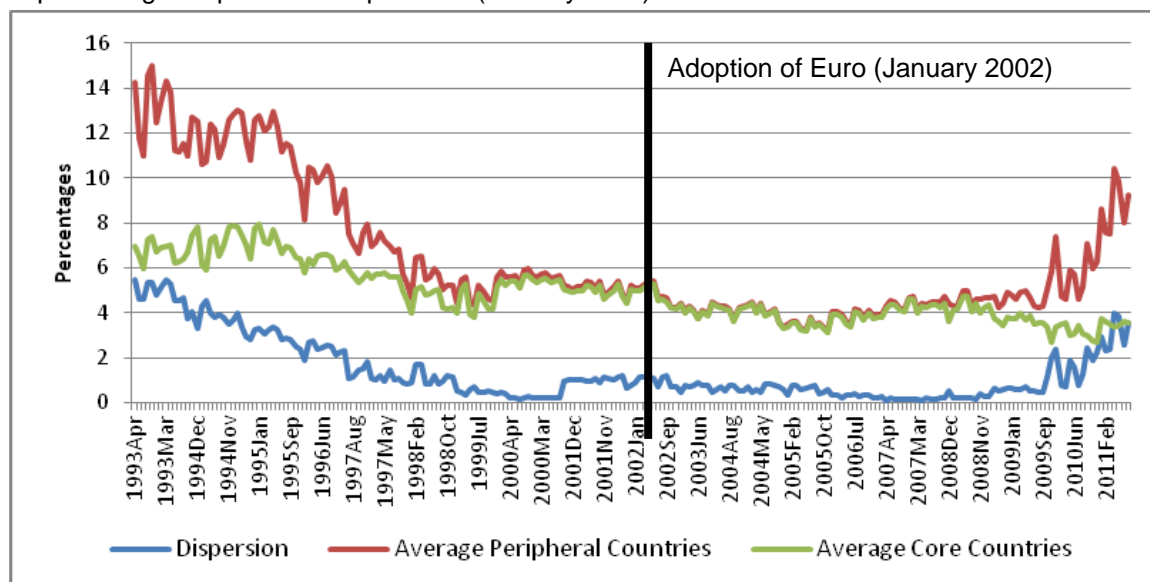
At the same time financial liberalization and the process of adoption of the Euro brought about a clear and marked convergence in both short and long term interest rates. Figure 1 below shows that the secondary market yields of 10 year government bonds for core and non-core (or peripheral) countries stood at 6% and 10% respectively and reached 5% for both country groupings on January 2002 (the month and year the Euro was implemented). As well, the dispersion for all Eurozone member states declined from 5% to 1% in the same period registered further declines thereafter until the 2008-2009 Global Crisis.

Interest rate convergence lowered interest rate margins especially in non-core countries. Between 1990-1995 and 1996-2001, interest rate margins as a percentage of total earning assets declined from 3.9% to 2.8% while these remained roughly constant in core countries. This translated into a decline in the rate of return over assets in non-core countries from 0.8% to 0.5% between 1990-1995 and 1996-2001 (see Table 5 below).

Figure 1:

European Union. Average secondary market yields of government bonds with maturities of close to ten years for core and non-core (peripheral) countries and dispersion.

In percentages: April 1993 – April 2011 (Monthly Data)



Source: Authors' own on the basis of European Central Bank (2011).

In the face of a decline in ROA as in the case of non-core countries between 1990-1995 and 1996-2007 or for a roughly constant ROE as in the case of both core and non-core countries between 1996-2001 and 2002-2007, the levels of profitability (ROE) of the financial system can be maintained or increased by higher levels of leverage (or indebtedness).¹³ The levels of

¹³ The simple banking profit identity, also known as the Du Pont de Nemours and Company return over equity (ROE) decomposition states that the ratio of earnings to equity equals the product of the ratio of earnings to assets and assets to equity. That is,

leverage were particularly high in some of the core countries. Available evidence on Germany provided by Bloomberg shows that leverage for the major banks increased on average from 27 to 45 between 1996 and 2007. As well data for 2007 for 14 of the major financial institutions of Europe (located in core countries) indicates that the average leverage ratio was 34 (with a maximum of 50).¹⁴

The freedom of financial flows to move throughout Europe and abroad, low borrowing costs and easy access to liquidity via leveraging coupled with no exchange rate risk provided a false sense of prosperity in a low risk environment.

Stylized facts of the Euro imbalances

The constraints imposed by the Maastricht Treaty (jointly with the Stability and Growth Pact) in the name of 'fiscal sustainability' on government activities, placed private expenditure, and/exports at the center stage of aggregate demand and as the linchpins of growth.

Core countries were able to pursue wage moderation and restraint policies as in the case of Germany and Austria and more generally in the case of the others (Belgium, France and the Netherlands) to contain labor costs below those of non-core countries. As Table 6 below shows between 2000 and 2007, unit labor costs remain essentially constant, increasing merely 7 percent on average for core countries. Contrarily labor unit costs for non-core countries witnessed a clear upward trend increasing by 24% for the same period. Under a fixed regime and within a context where the bulk of trade is intraregional (roughly around 70% using the export market share¹⁵), this amounted to a real devaluation and a basis to pursue export led growth policies and indeed more precisely 'beggar thy neighbor policies.'

$$\frac{Earnings}{Equity} = \left(\frac{Earnings}{Assets} \right) * \left(\frac{Assets}{Equity} \right)$$

where $\frac{Assets}{Equity} = Leverage$ and thus,

$$\frac{Earnings}{Equity} = \frac{Earnings}{Assets} * Leverage$$

As a result for a given assets to equity ratio the greater is the leverage the greater are profit opportunities captured by the ratio of earnings over equity.

¹⁴ To put things in perspective If the leverage ratio is equal to 10, then debt and equity finance represent 90% and 10% of the financial intermediary's acquisition of assets respectively. With a leverage ratio of 34, the respective debt and equity ratios are 97% and 3% respectively.

¹⁵ Computations were undertaken with WITS (2011) for the 27 European Union member states for 2006 using the SITC Rev.3.

Table 5						
Selected indicators of the performance of the banking system in the European Union (1990-2007)						
Core Countries						
Period	Financial Deepening	Costs/Income	Interest margins	ROA	Concentration	Z-Score
1990-1995	92.5	72.8	2.3	0.3	67.2	15.4
1996-2001	103.5	67.8	2.5	0.9	67.2	9.4
2002-2007	108.2	70.2	2.1	1.0	68.2	7.3
Non-core countries						
Period	Financial Deepening	Costs/Income	Interest margins	ROA	Concentration	Z-Score
1990-1995	56.8	67.6	3.9	0.8	72.1	23.9
1996-2001	73.3	70.8	2.8	0.5	66.7	25.6
2002-2007	112.8	66.5	2.2	0.4	68.9	15.8
Eurozone Countries						
Period	Financial Deepening	Costs/Income	Interest margins	ROA	Concentration	Z-Score
1990-1995	77.0	65.8	3.1	0.6	73.7	18.1
1996-2001	77.3	69.9	2.7	0.7	68.8	12.7
2002-2007	101.3	67.6	2.4	0.8	70.8	10.4
<p>Note: Core countries include: Austria, Belgium, France, Germany, The Netherlands. Non-core countries include: Greece, Ireland, Italy, Portugal, and Spain. Financial deepening is measured by private credit, by deposit money banks and other financial institutions. Costs/Income is measured as total costs as a share of total income of all commercial banks. Interest margins equal the accounting value of bank's net interest revenue as a share of its interest-bearing (total earning) assets. ROA= rate of return over assets. Concentration refers to assets of the three largest banks as a share of assets of all commercial banks. Z-Score is estimated as $ROA + equity/assets / sd(ROA)$; the standard deviation of ROA, $sd(ROA)$, is estimated as a 5-year moving average.</p> <p>Source: Based on Thortsen Beck and Asli Demirgüç-Kunt, "Financial Institutions and Markets Across Countries and over Time: Data and Analysis", World Bank Policy Research Working Paper No. 4943, May 2009</p>						

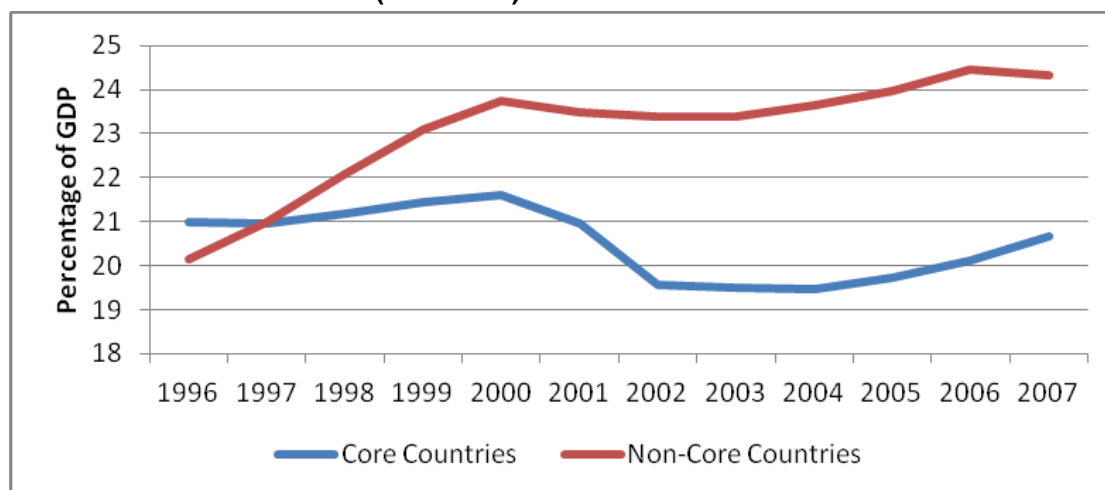
Table 6			
Average unit labor costs indices for non-core and core countries (2000=100)			
	Average Non Core countries	Average Core countries	Ratio of non-core to core country unit labor costs
2000	100	100	1.00
2001	102.5	102.4	1.00
2002	106.5	104.6	1.02
2003	110.1	106.0	1.04
2004	112.4	106.0	1.06
2005	116.9	106.7	1.10
2006	120.4	107.4	1.12
2007	124.3	108.5	1.15
2008	130.1	111.5	1.17
2009	132.0	116.7	1.13
2010	129.5	116.2	1.11
Source: On the basis of Eurostat (2011)			

Non-core countries did not have the means to counteract and offset core countries 'beggar thy neighbor policies.' The Euro common currency arrangement precludes nominal depreciations to compensate the increase in wages in the periphery relative to those in non-core countries. Further, there are few mechanisms for large fiscal transfers that would compensate the loss of output associated to reduced competitiveness in the countries with higher costs.

Faced with higher relative labor costs and real exchange appreciations, which undermined their external competitiveness, non-core countries were left with the option of growing by increasing internal aggregate demand. This is illustrated in Figure 2 which shows gross formation of fixed capital (GFFC, i.e. investment demand) as a percentage in GDP between 1996 and 2007, the year prior to the explosion of the Global Crisis. In 1996, both core and non-core countries had a similar GFFC relative to GDP (20% and 21% respectively). Thereafter, the GFFC shot up in non-core countries while in core countries it stagnated or declined. From the year of the implementation of the Euro (2002) until 2007, GFFC in non-core countries was roughly 4 percentage points of GDP above that of core countries.ⁱ

ⁱ A similar exercise using domestic final consumption over GDP, instead of investment shows a similar result. For the period 2002-2007, non-core countries final consumption averaged 78% and 75% of GDP for non-core and core countries.

Figure 2: Eurozone: Gross formation of fixed capital (GFFC) as a percentage of GDP for core and non-core countries (1996-2007)



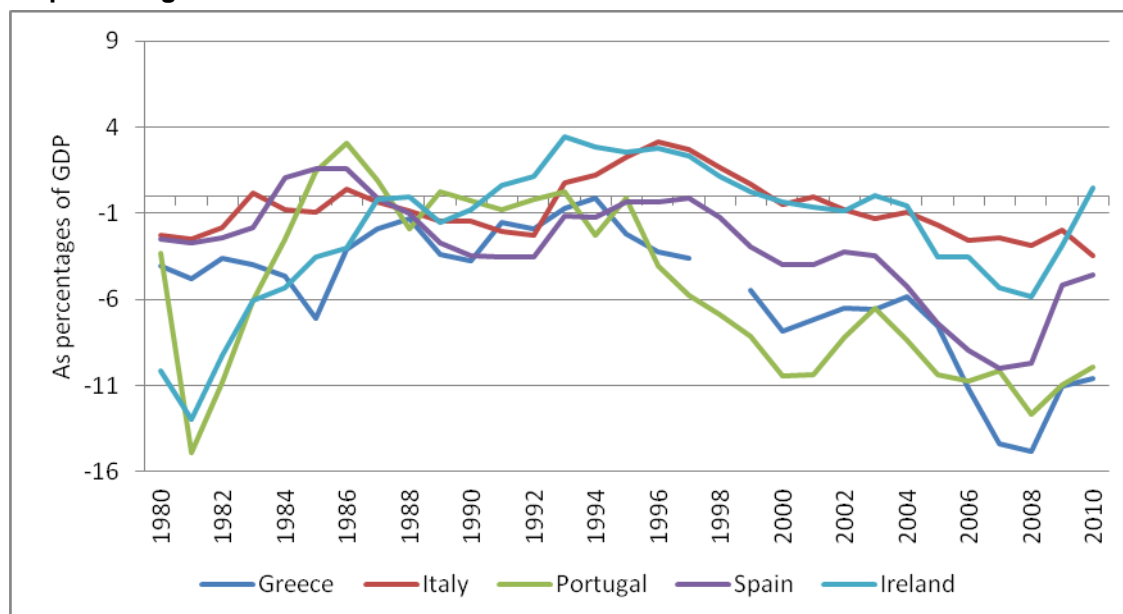
Source: On the basis of World Development Indicators (WDI) and Global Development Finance (GDF) 2011

Greater domestic demand and higher labor costs (real exchange rate appreciation) in the periphery had a negative impact on its constituent countries external position. As shown in figure 3 and table 7 below the current account balance for non-core countries deteriorated during the finalization of the European integration process and even more so following the introduction of the Euro. In other words, it seems fairly reasonable to believe that unit labor costs impacted the external performance of European economies, and that the common currency was central for the outcome.

Contrarily core countries external position remained in surplus and improved following the introduction of the Euro. In 2001, core countries registered on average a surplus on their current account equivalent to 0.9% of GDP. In 2007 the surplus had increased to 3.6% of GDP on average (see Annex for data at the country level).ⁱⁱ

ⁱⁱ In the period 2001-2007, at the country level, only France in 2005, 2006 and 2007 and Austria in 2001 registered deficits in the current accounts. With the exception of France in 2007, the current account deficits were below 1% of GDP. See Annex.

Figure 3: Current account balances for Non-core countries 1980-2010
As percentages of GDP



Source: World Development Indicators and Global Finance. World Bank (2011)

Table 7
Financial balances of core and non-core countries as percentages of GDP
2001-2010 (Averages)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Current account balance										
Average Core Countries	0.9	2.6	2.7	3.6	3.2	3.9	3.6	2.5	2.5	3.0
Average Non-Core Countries	-4.4	-3.9	-3.6	-4.2	-6.1	-7.4	-8.5	-9.2	-6.4	-5.6
Fiscal Balance										
Average Core Countries	-1.0	-2.3	-2.8	-2.4	-2.3	-0.8	-0.6	-1.0	-5.5	-5.0
Average Non-Core Countries	-2.3	-2.3	-2.4	-2.7	-2.6	-1.7	-1.8	-5.5	-11.3	-13.2
Private Sector Balance										
Average Core Countries	1.5	4.4	4.9	5.5	5.0	4.5	4.1	3.2	6.8	6.9
Average Non-Core Countries	-2.1	-1.6	-1.2	-1.5	-3.5	-5.7	-6.7	-3.7	4.9	7.5
Sources: On the basis of World Development Indicators and Global Finance (2011) and Eurostat (2011)										

Yet, while the external sector deteriorated, and contrary to the conventional wisdom non-core countries managed to maintain fiscal positions within the guidelines set out in the Maastricht Treaty. Following the adoption of the Euro and until the onset of the crisis, all non-core countries fiscal deficits on average were below 3% of GDP and with the exception of 2006 and 2007, were below or at the level of average core countries fiscal deficits.

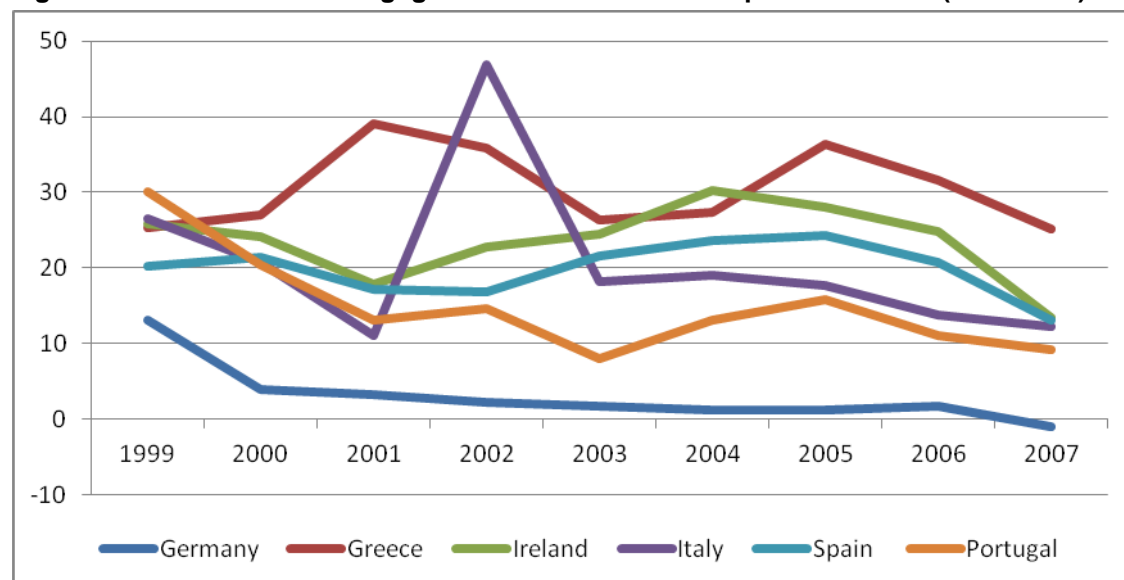
Moreover a more detailed analysis at the country level also shows that fiscal deficits were not endemic to non-core countries. Ireland and Spain two non-core countries were able to reach fiscal surpluses. Ireland fiscal accounts were in surplus continually between 2001 and 2007. Spain was able to register budget surpluses between 2005 and 2007 (See, Annex).

The expansion of internal demand was sustained by the decline in interest rates (i.e., interest rate convergence) in the non-core countries and more importantly by the process of financial integration and deregulation. The latter, permitted finance to flow from core to non-core countries where the relative rates of return were higher. Easy access to finance permitted the funding of increasing current account deficits and also private debt accumulation.

As shown in Table 7 above private balances show a rising average deficit for non-core countries since the introduction of the Euro. In 2002, the private sector deficit of the non-core countries averaged 1.6% of GDP and increased to reach in 2007, 6.7% of GDP.

The private sector deficits are due to a great extent the result of household indebtedness, particularly significant in some of the peripheral countries of Europe like Ireland, Portugal and Spain, and to a lesser degree in Greece and Italy. As noted by Zarco (2009, p.4) the total liabilities of households and non-profit institutions serving households as a percentage of their disposable income increased in most countries between 2000 and 2007, and it was over 100%, in 2007, for Germany, Spain, and Portugal, and was over 200% for in the same year.

Figure 4: Growth rate of mortgage loans for selected European countries (1999-2007).



Source: ECB (2009)

Further according to the European Central Bank (2009) the growth rates of mortgage loans in the peripheral countries increased significantly (see Figure 4 above). Arguably in certain countries of the periphery a housing bubble, similar to the one in the United States, had developed with the process of financial deregulation.

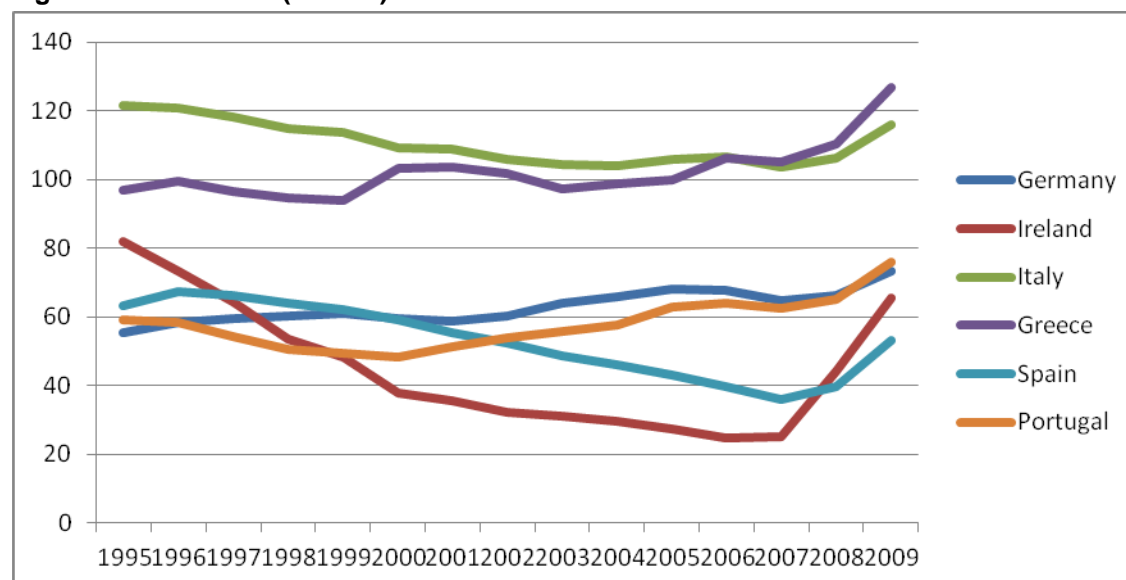
Private debt accumulation (underpinned by financial liberalization which allowed finance to flow from core to non-core countries) in turn contributed to underpin internal aggregate

demand growth and imports. Thus the lending boom in the periphery allowed core countries to pursue a strategy of export-led growth.

The imbalances between a set of core-countries growing at the expense of mounting disequilibria and debt accumulation in the non-core countries or periphery made them vulnerable to changing external conditions as shown by onset and impact of the Global Crisis (2007-2008).ⁱⁱⁱ

Unfortunately, due to the fact that in a time of crisis governments must increase expenditure (even if only through automatic stabilizers) in order to mitigate its impact while at the same time revenues tend to decline (due to output contraction or outright recession), budget deficits are inevitable and emerge as a favorite cause of the crises itself. As shown in figure 5 below public debt was relatively constant or decreasing in the case of both core and non-core countries, without exception, up to the 2007-8 crisis. Only then did the levels of public debt increased at a significant rate. A similar conclusion emerges from the evidence presented on budget deficits in Table 7 above.

Figure 5: Public debt (% GDP)



Source: Eurostat (2011)

The myths and facts of policy

These stylized macroeconomic facts of the Euro Zone imbalances underscore that central to the different views of neoclassical and post-Keynesian authors, with respect to the European crisis, is the question of causality relating the fiscal and external crisis. From our post-Keynesian point of view the evidence against a fiscal crisis is so clear cut that is somewhat perplexing that the academic and political debate is fundamentally about whether the SGP should be strengthened or a new arrangement should be implemented to promote fiscal centralization at the supra-national level. Note that the effort for fiscal centralization is seen

ⁱⁱⁱ Cesaratto and Stirati (2011) suggest that German mercantilism, that is the stagnant wages and export-led strategy of growth in Germany, is at the center of the crisis. Our analysis suggests that export-led strategy was a feature of the ensemble of core-countries.

as a necessary step towards more stringent fiscal adjustment, and not to reduce the problems associated with the common currency, promoting fiscal transfers to the distressed economies.

In fact, the IMF supported adjustment programs for three non-core countries, Greece, Ireland and Portugal clearly accept the notion that fiscal consolidation and adjustment is essential, even in the face of a recession. Greece, Ireland and Portugal were committed to reduce their respective budget deficits from an estimated 8%, 32% and 9% in 2010 respectively to a level below 3% in 2014. As well, the two other peripheral countries, Italy and Spain also contemplate important reductions in their budget balances from -4.5% to -2.4% and from -9.2% to -5.2% of GDP between 2010 and 2012 respectively.^{iv} (See Table 8 below.).

Table 8			
IMF supported adjustment programs for Euro countries (2011)			
Country	Type and date of program	Size of program	Main fiscal measures
Greece	Stand-by-Arrangement (May 2010)	US\$ 30 billion or 11% of GDP	Restore Fiscal sustainability. Lower the overall deficit from 8.1% in 2010 to below 3% of GDP by 2014 (with a primary fiscal balance surplus). Fiscal effort mainly through public sector wage cuts to regain market access. Place the debt-to-GDP ratio on a declining trend. The consolidation measures are estimated to be equivalent to
Ireland	Extended Fund Facility (December 2010)	US\$ 30.1 billion	Sizable fiscal adjustment to bring the overall deficit from -32% of GDP to below 3% of GDP by 2015. The fiscal adjustment focuses on significant declines in public expenditure (wages and employment) with some capital expenditure cuts. The consolidation measures are estimated to be equivalent to 9% of GDP.
Portugal	Extended Fund Facility (May 2011)	US\$ 37.8 billion	Reach a 3% of GDP deficit by 2013 with stable debt to GDP ratios. The deficit in 2010 was estimated at 9.1% of GDP. The bulk of the adjustment is placed on public current and capital expenditure. The overall required fiscal adjustment was estimated at 10% of GDP.
<p>Note: In the year the IMF programs were approved the overall fiscal balances for Greece, Ireland and Portugal were -10.4%, -32% and -9.1% respectively.</p> <p>Sources: On the basis of Regional Economic Outlook, IMF (2011); Press Release No. 10/187 May 9, 2010 http://www.imf.org/external/np/sec/pr/2010/pr10187.htm . Press Release No. 10/496, December 16, 2010 http://www.imf.org/external/np/sec/pr/2010/pr10496.htm . IMF Country Report No. 11/127 (Portugal). June 2011 http://www.imf.org/external/pubs/ft/scr/2011/cr11127.pdf</p>			

^{iv} See, IMF's, Fiscal Monitor. September, 2011.

In the particular case of Greece the public deficit turned out to be higher than the estimated 8% for 2010 (the actual deficit turned out to be 10.5% of GDP). Moreover, the government declared that it will not be able to meet its target reduction deficit for 2011 (8.5% of GDP). This has prompted well founded fears of debt default and financial contagion throughout Europe and other parts of the World. More recently doubts have also been cast over other non-core countries ability to comply with their fiscal targets.

The contractionary fiscal stance and the slack in private demand (as show in table 7 above private sector balances of both core and non-core countries began to be in surplus following the global crisis) implies that recovery is expected to come from the external sector. However, in a context such as the European where the bulk of trade is intraregional, and in a situation of stagnant internal demand in particular in non-core countries, external sector led recovery can only imply an expectation that low wages and deflation will do the work of increasing external competitiveness. This is from our point of view a self-defeating strategy as it comes at high costs in terms of unemployment and this will contract aggregate demand even further.

Average annual unemployment rate in the Euro Zone averaged above 8% in the period 2001-2007 increasing to 10% following the Global Crisis. In the non-core countries the post crisis unemployment rate was almost twice that of the pre-crisis period (7.8% and 14% respectively; see Table 9 below).

Table 9						
Euro Zone Annual Unemployment Rates 2001-2012 (In percentage)						
	2001	2002-2007	2008-2009	2010	2011	2012
Euro area	8.1	8.6	8.6	10.1	10.0	9.9
Belgium	6.6	8.1	7.5	8.3	7.4	7.2
Germany	7.6	9.6	7.7	7.1	6.1	5.9
France	8.3	9.0	8.7	9.8	9.6	9.3
Netherlands	2.5	4.3	3.4	4.5	4.4	4.8
Austria	3.6	4.6	4.3	4.4	4.2	4.3
Ireland	3.9	4.5	9.1	13.7	14.5	14.3
Greece	10.7	9.6	8.6	12.6	15.7	15.9
Spain	10.3	9.8	14.7	20.1	21.0	21.1
Portugal	4.6	7.7	9.6	12.0	12.7	13.5
Italy	9.1	7.6	7.3	8.4	8.1	8.2
Core Countries	5.7	7.1	6.3	6.8	6.3	6.3
Non-Core countries	7.7	7.9	9.8	13.4	14.4	14.6
Unemployment rate differential (in percentage points)	2.0	0.7	3.5	6.5	8.1	8.3
Source: Eurostat (2011) http://epp.Eurostat.ec.Europa.eu/portal/page/portal/employment_unemployment_ifs/data/database And Ernst and Young, September 2011						

These developments do not bode well for the future of the European recovery, for the Euro, and consequently for the world economy, that will be negatively impacted by a sluggish recovery in Europe. According to our own estimates based on an optimistic outlook, the rate of growth of GDP per capita in the core countries will be close to 1% in 2012 while in non-core countries it will contract to below -1.5% on average.

As noted by our discussion it seems that the evidence does not support the conventional wisdom according to which the European crisis has been fiscal in nature. Even in the case of Greece, which has encountered more fiscal problems in the years preceding the crisis, interest rates converged, and the fiscal imbalances only increased after 2007. From our point of view the crisis is emblematic of internal imbalances between core and non-core countries under financial deregulation that did not prove to be sustainable over time.

Imbalances in a Monetary or Currency Union are bound to occur when its state members are economically heterogeneous and different. Recognition of this fact requires that the establishing Union must create as part of its constituent charter mechanisms to solve and clear the imbalances rather than making them cumulative over time as in the case of the Euro Zone. In practice this amounted to recycle balances from surplus to deficit countries to maintain the dynamics of aggregate demand. This implies that the creditor country should play an active role as part of an equilibrating mechanism and that the brunt of the adjustment should not be borne by the debtor country which happens to be the weaker and less developed country.^v

Placing an equilibrating principle at the center of monetary integration would help to produce a rebalancing of external accounts and would increase the policy space for fiscal expansion and to undertake economic growth and full-employment policies. As important, in the current juncture, it would preempt to a great extent the need to design and implement rescue package funds such as the Financial Stability Facility or for the European Central Bank to bail out governments through the purchase of government bonds.^{vi} In a similar manner, the survival of the Euro Zone would not be, as dependent as it currently is, on commercial bank recapitalization or nationalization.^{vii}

^v This is similar to John Maynard Keynes' (1941 [1980]) banking principle (the 'equality of credits and debits, of assets and liabilities', Ibid. p.44) as guiding principle for the Clearing Union.

^{vi} The Financial Stability Facility (EFSF) was created in May 2010. It provides (in conjunction with the IMF) financial assistance to Euro country member states with guarantees up to 440 billion Euros which has been recently enlarged to 780 billion Euros. The EFSF is a funding mechanism though bond issues backed by the more developed European economies while the authority to spend the money is left to the governments of member states (See, Soros, 2011). The Financial Stability Facility (EFSF) will be replaced in 2013 by the European Stability Mechanism. Since May 2010, the purchase of bonds by the European Central Bank amount to 156,500 million Euros.

^{vii} The current level of capitalization is 5%. A proposal has been tabled to include it to 9%. The recent credit downgrading of non-core countries has increased the pressure to recapitalize banks (and obviously the push for fiscal consolidation).

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Author contact: vernengo@economics.utah.edu

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Annex

Table 10												
Unit labor costs for core and non-core countries 2000-2010 (2000=100)												
	Austria	Belgium	France	Germany	Netherlands	Greece	Ireland	Italy	Spain	Average Non Core countries	Average Core countries	Ratio of NC to Core
2000	100	100	100	100	100	100	100	100	100	100	100	1.00
2001	101.0	103.7	102.3	100.4	104.7	100.0	103.8	103.3	103.1	102.5	102.4	1.00
2002	101.3	106.3	105.2	100.8	109.3	109.1	103.9	106.8	106.2	106.5	104.6	1.02
2003	102.4	107.1	107.2	101.5	111.8	110.4	108.8	111.5	109.6	110.1	106.0	1.04
2004	101.8	107.1	108.2	100.6	112.2	111.8	112.4	113.2	112.3	112.4	106.0	1.06
2005	103.0	108.7	110.2	99.7	111.8	115.8	119.1	116.6	116.1	116.9	106.7	1.10
2006	103.5	110.8	112.4	97.8	112.6	119.2	124.0	118.7	119.8	120.4	107.4	1.12
2007	104.0	113.2	113.8	97.2	114.5	123.7	128.0	121.3	124.3	124.3	108.5	1.15
2008	106.1	117.8	116.6	99.5	117.3	130.4	133.6	126.2	130.1	130.1	111.5	1.17
2009	111.6	123.0	119.8	105.8	123.5	136.6	128.8	131.5	131.1	132.0	116.7	1.13
2010	111.8	122.6	120.7	104.0	121.9	135.8	121.8	131.2	129.3	129.5	116.2	1.11
Source: Eurostat (2011)												

Table 11										
Financial balances of core and non-core European countries as percentages of GDP 2001-2010										
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Current account balance										
France	1.8	1.2	0.7	0.5	-0.5	-0.6	-1.0	-1.8	-1.5	-1.7
Germany	0.0	2.0	1.9	4.7	5.0	6.3	7.5	6.3	5.7	5.7
Belgium		4.6	3.5	3.2	2.0	1.9	1.5	-1.6	0.4	1.0
Austria	-0.8	2.7	1.7	2.1	2.1	2.4	3.5	4.9	2.9	2.8
Netherlands	2.4	2.5	5.5	7.6	7.3	9.3	6.7	4.5	4.9	7.2
Greece	-7.2	-6.5	-6.6	-5.9	-7.5	-11.2	-14.3	-14.8	-11.0	-10.6
Italy	-0.1	-0.8	-1.3	-1.0	-1.7	-2.6	-2.4	-2.9	-1.9	-3.5
Portugal	-10.3	-8.2	-6.5	-8.4	-10.4	-10.7	-10.1	-12.6	-10.9	-9.9
Spain	-4.0	-3.2	-3.5	-5.3	-7.4	-9.0	-10.0	-9.7	-5.1	-4.6
Ireland	-0.7	-0.9	0.1	-0.6	-3.5	-3.5	-5.3	-5.8	-2.8	0.5
Average Core Countries	0.9	2.6	2.7	3.6	3.2	3.9	3.6	2.5	2.5	3.0
Average Non-Core Countries	-4.4	-3.9	-3.6	-4.2	-6.1	-7.4	-8.5	-9.2	-6.4	-5.6
Fiscal Balance										
France	-1.5	-3.1	-4.1	-3.6	-2.9	-2.3	-2.7	-3.3	-7.5	-7.0
Germany	-2.8	-3.7	-4.0	-3.8	-3.3	-1.6	0.3	0.1	-3.0	-3.3
Belgium	0.4	-0.1	-0.1	-0.3	-2.7	0.1	-0.3	-1.3	-5.9	-4.1
Austria										
Netherlands	-0.2	-2.1	-3.1	-1.7	-0.3	0.5	0.2	0.6	-5.5	-5.4
Greece	-4.5	-4.8	-5.6	-7.5	-5.2	-5.7	-6.4	-9.8	-15.4	-10.5
Italy	-3.1	-2.9	-3.5	-3.5	-4.3	-3.4	-1.5	-2.7	-5.4	-4.6
Portugal	-4.3	-2.9	-3.0	-3.4	-5.9	-4.1	-3.1	-3.5	-10.1	-9.1
Spain	-0.6	-0.5	-0.2	-0.3	1.0	2.0	1.9	-4.2	-11.1	-9.2

Ireland	0.9	-0.4	0.4	1.4	1.6	2.9	0.1	-7.3	-14.3	-32.4
Average Core Countries	-1.0	-2.3	-2.8	-2.4	-2.3	-0.8	-0.6	-1.0	-5.5	-5.0
Average Non-Core Countries	-2.3	-2.3	-2.4	-2.7	-2.6	-1.7	-1.8	-5.5	-11.3	-13.2
Private Sector Balance										
France	3.3	4.3	4.8	4.1	2.4	1.7	1.7	1.5	6.0	5.3
Germany	2.8	5.7	5.9	8.5	8.3	7.9	7.2	6.2	8.7	9.0
Belgium	-0.4	4.7	3.6	3.5	4.7	1.8	1.8	-0.3	6.3	5.1
Austria	-0.8	2.7	1.7	2.1	2.1	2.4	3.5	4.9	2.9	2.8
Netherlands	2.6	4.6	8.6	9.3	7.6	8.8	6.5	3.9	10.4	12.6
Greece	-2.7	-1.7	-1.0	1.6	-2.3	-5.5	-7.9	-5.0	4.4	-0.1
Italy	3.0	2.1	2.2	2.5	2.6	0.8	-0.9	-0.2	3.5	1.1
Portugal	-6.0	-5.3	-3.5	-5.0	-4.5	-6.6	-7.0	-9.1	-0.8	-0.8
Spain	-3.4	-2.7	-3.3	-5.0	-8.4	-11.0	-11.9	-5.5	6.0	4.6
Ireland	-1.6	-0.5	-0.3	-2.0	-5.1	-6.4	-5.4	1.5	11.5	32.9
Average Core Countries	1.5	4.4	4.9	5.5	5.0	4.5	4.1	3.2	6.8	6.9
Average Non-Core Countries	-2.1	-1.6	-1.2	-1.5	-3.5	-5.7	-6.7	-3.7	4.9	7.5
Source: Eurostat (2011) and World Bank Development Indicators and Global Development Finance (2011)										

What if the Greeks, Portuguese, Irish, Baltics, Spaniards, and Italians did this: high-tech parallel monetary systems for the underdogs?

Trond Andresen [The Norwegian University of Science and Technology¹, Norway]

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Abstract: Advances in information technology now make it possible for non-government entities, or governments themselves, to establish and run a national parallel paperless monetary system at very low cost and launch it on very short notice. The workings of such a system is described and discussed. Such systems may ameliorate the dire state of affairs in the hardest hit eurozone countries, and increase the political pressure on EU and national elites for debt forgiveness, full employment and reduction of cutbacks. It may also be applied in near-bankrupt U.S. States.

"Worldly wisdom teaches that it is better for the reputation to fail conventionally than to succeed unconventionally" - John Maynard Keynes

1. Introduction

This is a comprehensively revised² and expanded version of a paper from two earlier occasions (Andresen, 2010). At the time of writing, 22 February 2012, the situation especially for Greece is much graver than when two earlier versions were written in 2010. New solutions are acutely needed. This is an attempt to think outside the box, because any sorts of thinking inside the box on Greece, Portugal and other countries in similar situations has not led to anything and will not either. (But if the reader knows about some unconventional proposal that I may have overlooked, please point me to it!)

To service its euro-denominated debt, a Eurozone government has the choice between borrowing more money, or to extract euros out of the non-government sector by taxing more than it spends. It does not have the option of creating ("printing") money, since the country has disposed with its former domestic currency.

An euro-indebted private sector has the same choice: service debt out of current income or borrow more to pay. A supposedly sustainable way to counter these "bloodletting" flows from a country's economy is to achieve a persistent export surplus and increase this to so much that the associated income can support the aggregate outgoing debt service flows. This does not happen however, especially after debt (service) burdens have increased steeply due to risk-caused increases in interest levels on new loans, and also since a depressed economy impacts exports and government income negatively.

So debt should be partly written off, but since the creditors resist this (knowing they have the upper hand because the country urgently and repeatedly craves more euro loans simply to avoid collapse), the domestic economy will be increasingly starved for money.

Furthermore, those domestic households and firms that possess money will hold back in spending and investment, worsening the situation. This contributes to an even more

1. Department of Engineering Cybernetic

2. I am grateful for comments from an anonymous referee. They have helped me improve the paper.

pessimistic mood and more and more holding back – we get a downward spiral. This dynamic is also worsened by banks holding back in their lending.

Thus, the case for an emergency *parallel medium of exchange*. It will be argued that such a measure may significantly and quickly ameliorate the crisis and possibly turn things around after a while. It will reduce unemployment and enable people and firms to exchange goods and services. It will revive the country's firms and export capabilities. It will also stimulate import substitution, thus increasing net exports. Furthermore it will enhance the country's bargaining position towards the creditors.

This is the topic of this paper.

A question needs to be answered before proceeding: to what degree can one assume the support for such a program from the government in the crisis-hit country?

One may take the position that a crisis government will probably welcome a parallel currency ("PC") proposal with open arms, even while knowing that the EU and ECB will possibly declare such a measure illegal under EU rules and regulations. Section 3 in this paper describes the parallel currency in a setting where there is government support.

But this author's opinion (which of course may be too pessimistic) is that elites in a typical crisis country (Greece among them) are so wedded to the EU system that they will not consider implementing a parallel currency, even when things are desperate. So the main thrust of this paper, section 2, is to present and discuss an alternative that may be established and run by organisations and groups *outside* the government and national central bank, even in a situation with hostility from the domestic authorities.

There is a risk that that not only the EU, but also the crisis government, will try to quash such a system. With this in mind, it becomes relevant to discuss tactics, timing and legal maneuvering, possibly enabling the system to become so popular so quickly that it is politically very difficult to stop, or – the best alternative – that the government caves in and chooses to establish an official PC system as described in section 3.

2. A non-government "monetary" system

The proposal

An alliance of large grass roots organisations (typically: unions) sets up a cooperative bank-like operation ("BLO"). Probably it should be an association requiring membership to participate (more on this below). This BLO issues "value points" (an arbitrarily chosen term, from now on abbreviated "VP's" it could be called "units", "work units", "credits", "coupons", whatever – but should for tactical reasons not be called "money"). Technically, the BLO is just a national office with computer capacity and a few employees. There are no branches. A member gets a VP "account" with the BLO. To use the account the member needs a mobile phone subscription. When opening an account, (s)he is automatically offered credit up to a standard amount of VP's from the BLO. Such a "basic loan" has the purpose of enabling the person to begin transacting with others. It is primarily meant as a medium of exchange, and not as a store of value. It is interest-free, but there is a very small membership fee per account, which is only to cover the expenses of the BLO office and computer/network costs.

This fee must be paid in euros/regular money. The VP loan has limited duration, a few months. When the loan expires, the borrower has the right to an automatically renewed loan, but the maximum amount allowed may have been adjusted somewhat up or down in relation to the last loan received. More on this below.

Technological progress makes this possible

What is to be proposed here is a countrywide and extremely efficient version of a Local Exchange Trading System (LETS) or a local currency system³. Such systems are initiated to enable exchange of goods and services in a community without having to resort to barter, by introducing a local medium of exchange: Members gain points by supplying goods or services to other members. Such points gained are in the next round used to buy goods or services from other participants. The advantage is that this enables economic activities locally which would otherwise not have taken place due to lack of money. A LETS system has traditionally been managed by some trusted person(s) keeping tally of everyone's points account, in modern times on a computer. This is done when reports of exchanges are received. Such a system depends on activists and idealism, and is only manageable when it is confined to some local community. Another factor limiting the geographical and population scope of such schemes is that participants need to know which other agents (persons, firms) are also in the scheme, and what sort of services or goods they offer.

A local currency system does a similar job as a LETS scheme. In that case one has circulating paper currency resembling regular money, something that eliminates the need for account updates with each transaction, but which may be legally difficult to uphold due to the state's monopoly on money issuance.

A LETS-like scheme must do the following:

- account for transactions (or run a local monetary system)
- give participants an easy and fast way to find other participants in the system and what they offer (or demand).

Today, with most people having mobile phones, and also access to the Internet (whether at home, work or elsewhere), both challenges may be elegantly and cheaply met, and "the local community" may be expanded to encompass a country (or state, like in the U.S.). Transactions are executed via mobile phone/SMS and automatically accounted for on a server. And a web site data base (possibly on the same server), updated by participants and having a Google-like search system, will enable participants to advertise themselves or to easily find sellers and buyers anywhere of the relevant goods or services.

Gradual increase in transactions

Mobile phone transactions with other BLO members may be implemented through one of the technically proven and successful schemes already in operation in some developing countries (Hughes & Lonie, 2007). There are no physical/paper VP's in circulation. People and firms

3. Many LETS systems have been, or are, successful. The reader is referred to <http://en.wikipedia.org/wiki/LETS> which gives an introduction. One of most successful cases of the LETS-similar scheme of circulating a local currency, was the one in Wörgl in Austria, mentioned later in this paper. A reason for the scheme's success was that it implemented Silvio Gesell's (http://en.wikipedia.org/wiki/Silvio_Gesell) proposal of levying a fee on money held (i.e. a negative interest on liquids). This led to a very high speed of circulation. For more on this, see (Fisher, 1933) and http://en.wikipedia.org/wiki/Local_currency, which also mentions the quite different, long-lived and still existing Swiss WIR, described here: <http://en.wikipedia.org/wiki/WIR>.

offering goods and services will gradually — as the scheme gets more popular — decide to accept a certain share of VP's as payment, while the rest must still be in euros. Such a share is decided freely and individually by the seller, and may also be adjusted at any time with circumstances. The same holds for wages: employers and employees may, as the scheme gets widely accepted, agree on a certain share of wages being paid in VP's, a share that may be re-negotiated as things develop.

Pure faith-based money

The VP's are pure faith-based money. They do not have any property giving it an intrinsic value like (fiat) money issued by a government/central bank, which has indisputable value by being the sole currency that may be used to pay taxes — as per the "MMT = Modern Money Theory " or "Chartalist" view (Wray, 2006). People or firms will therefore accept VP's in payment *only if they believe that a sufficient amount of other people/firms will accept them*. This outcome is probable however, since today's only alternative for the Greeks (and other nations in a similar situation) of increasing hardship, unemployment and too low and further shrinking income in euros over many years, is much worse.

Building confidence

This scheme has dynamics which may be unstable in two ways: confidence building more confidence, or decreasing confidence leading to steep VP inflation and collapse. One should ensure a basic and initial level of confidence by the BLO being launched and run by (a) large, national and well established organisation(s). Furthermore, by controlling the amount of VP's in circulation — based on observing the average acceptance of VP's as a share of payment together with euros, it should be possible to uphold the needed amount of confidence in the system. The amount in circulation may be limited by renewing loans with a lower amount when the earlier automatically given loans expire. Then the borrower will have to accept a reduction of the amount in his/hers account. To avoid runaway inflation in VP's, one should probably start the process by issuing a restricted amount (see below), and then letting the aggregate amount grow (or in between, possibly shrink) based on the observed impact. Note that the existence of VP's only as electronic entities on a computer (no physical "currency"), combined with the fact that *the initial issued loan has not in any way been "earned" by the account holder*, allows the scheme to freely regulate the amount of VP's in circulation upwards or even downwards, by adjusting all accounts with the same amount. This means that at any time, participants enjoy the basic freely received VP loan, which may be slightly adjusted equally for all now and then, based on developments. By this we get a new and potent macroeconomic control instrument that is not available in a regular monetary system. The issuer of VP's has no obligation to "redeem" participants in the system, except to not remove surplus VP's that some holders may have accumulated above the basic loan. For those there is a certain risk if for some reason the system is terminated. But all participants must first accept the conditions and risks associated with the system, to be allowed to join. It is emphasised that this is an *emergency* system, primarily meant for *exchange*, not for savings.

Will the scheme be quashed by the state?

As already mentioned, the BLO should be organised as an association or "exchange club", requiring membership. Then the VP's are not a state-controlled medium of exchange i.e. money, but a device only for club members to exchange goods and labour between them.

Hopefully this will make it a bit more difficult for the state to ban such a system, like the Austrian state did in 1933 against the very successful local currency in the town of Wörgl. Organising the scheme as an association with transactions only being available to members, and no money-like paper VP's in circulation, may prevent or at least postpone such an outcome. The state may also try the milder countermeasure of levying income tax in euros on such activities, portraying them as "tax evasive" and constituting "a black economy". Such attempts must then be fought against politically and legally, in parallel with the ongoing other popular anti-crisis resistance activities. Again: This is a measure in an emergency situation, and must be considered on that basis.

One may expect that such a scheme will not only be opposed by the state; it will probably also be derided by the economic establishment, including most financial pages pundits. But criticism in itself is not a fundamental obstacle. The danger is as mentioned whether the scheme may simply be banned, or quashed via euro taxation. But there are grounds for optimism: a crucial advantage of organising the VP scheme via the mobile phone network, is that it is cheap, can be up and running very fast, and gain widespread popularity in such a short timespan that it will be politically very difficult for the authorities to shut it down, or tax it to kill it.

Membership should be required

There is a second argument for membership requirement: One should avoid giving the well-to-do a free lunch in the form of an automatic BLO loan, on top of the ample buying power they possess in euros. They should as a rule only be allowed to open an account, but not have access to the VP basic loan. The BLO should be targeted towards the less well-off in society. This may be achieved by having two grades of membership. Level 1 is open to all (including firms): you get an account but no basic loan. Level 2 (call it "core" membership) additionally qualifies for the loan. Core membership should only be given to people already belonging to one or more of the organisations behind the BLO (unions and similar popular organisations, for instance farmers'), to pensioners and to the unemployed. And it should be automatically given, to give the scheme a flying start.

It is probably wise to start the process carefully by only giving automatic loans to core members, and later relax the rules in a controlled manner, based on how things develop. Account holders that default on their loans above some defined level of transgression may be excluded as members of the system, and their accounts discontinued.

Credit above the automatic amount?

In an initial period, the system should be simple and only have the purpose of enabling transactions between agents that lack a medium of exchange (as mentioned earlier this is the main problem, not the lack of money as a store of value). If the scheme exhibits strong growth and widening acceptance, the possibility of extending regular and large VP loans to applicants could be considered. But this would demand a dramatic increase in the staff and organisation complexity of the BLO, because loan applicants have to be vetted and collateral has to be posted. This would possibly also make it easier for the state or the central EU apparatus to achieve a ban against the system.

A profitable business proposal?

Assume the existence in one or more Eurozone countries of a mobile phone company led by people with a certain amount of creativity and open-mindedness. They could decide to be the center of a BLO-type project. They could start an exchange club and offer a bundle with a phone, a subscription, and BLO membership. This would have the largest impact if it was done in cooperation with one or more national popular organisations, as mentioned above. Realistically, such an initiative would attract a lot of new subscribers and generate much traffic for the company. Additionally, the company would benefit from extensive media coverage and be seen by a large share of the population as socially responsible and different from the usual run-of-the-mill corporation.

Net exports?

As discussed, the public holds stocks of both VP's and euros, using these for exchanges, and output then consists of two components, mediated using each currency. A very important point is that economic activity using VP's will impact positively on the country's *euro* position: By enabling activation of idle labour and production capacity, exports increase. Furthermore, the increased utilisation of domestic labour and capacity via VP's will also stimulate import substitution, also since VP's cannot be used to pay for imports. So, even if this extra activity is mediated with a parallel currency, this enhances the ability of the country to service its debt burden in euros.

Political resistance from within?

Resistance from the state and mainstream media pundits have already been mentioned. Another and perhaps more surprising source of resistance against this scheme may be the leadership in some of the mass organisations whose members would benefit from it. Many such leaders are anchored in a marxist/communist/left socialist tradition. The proposal may easily be seen by some of these as a "petty bourgeois" invention of the "fringe" or "alternative" type, only "giving the masses illusions" and "leading them astray in the struggle against capitalism and for socialism".

3. A (parallel) government monetary system

The above scheme has the advantage of increasing the political pressure on the establishment. If they consider it economically harmful they can make it superfluous by reverting to a regular national currency combined with negotiating for partial euro debt forgiveness, as already argued by many voices. Reverting to an official national currency would put the debtor nations on a much more powerful footing versus the euro creditors, and would be the best solution in the long run. But it seems to be politically totally out of the question for those in power.

An intermediate solution

A government could however implement a less drastic measure: use a variant of the VP system described above, as an "official emergency currency" ("OEC"). This is more comprehensively discussed in (Andresen, 2012). A government-issued OEC is fiat money. It

has intrinsic value as opposed to the VP since it may be used for tax payments. An OEC will therefore more easily be accepted as a means of payment by firms and individuals.

As already argued in the VP case, an advantage of implementing a parallel currency system using the mobile phone network instead of bills and coins, is that it may be up and running very quickly after a government have decided to do it, so that its positive effects may have been demonstrated before the EU system is able to marshal forces to stop it. With an OEC as opposed to the VP system, the "grass roots" include the national government,. Now the adversaries are mostly outside the country; in Brussels, Frankfurt and among the big banks.

A technical advantage of an electronic OEC is that tax avoidance is impossible, since any transaction occurs via accounts in the Central Bank, and is logged there.

This scheme could also be useful for non-EU-countries, or such national regions that have authority to collect region-based taxes, like the near-bankrupt U.S. state of California. There OEC's could be implemented by the state government, with immediate positive results.

4. Conclusion: better than the bleak alternatives

Enabling unemployed or underemployed people to work for each other and (increasingly) to exchange goods and services with the rest of society, will — with immediate effects — ameliorate the dramatic and persistent decrease in living standards for most people, which is the bleak and only future (lasting many years) that the powers that be and most commentators are able to come up with. By the proposed scheme it should be possible to activate a large underused potential that the hard-hit Eurozone countries have, unemployed or underemployed people, and to give many a better life. It will primarily stimulate domestic production, since VP/OEC's may not be used (much) to pay for imports.

It will also give euro-indebted countries a dramatically better position in their bargaining for partial debt relief or less heavy euro debt service burdens.

And if governments refuse to do this regardless of how bad the alternatives are, the option is there for non-government entities as described, for the first time in history, thanks to technological advances.

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Author contact: trond.andresen@itk.ntnu.no

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Unemployment in the post-revolutionary Arab world*

Ali Kadri^{1,2} [Middle East Institute. National University of Singapore]

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Abstract

For more than a decade prior to the uprisings of 2011, the official unemployment rate in the Arab region was among the highest globally and around half the Arab population subsisted on less than two dollars a day. When unemployment is measured by imputing a minimum historically-determined level of subsistence into it, the effective unemployment rate would rise to nearly fifty percent. Armed with neoliberal ideology, the Western-backed comprador class squandered resources either by expropriating the working population or by surrendering them to capital at prices that were set by a global power structure from which working people in the Arab world were excluded. In this essay, I argue that the retention of resources and their redeployment within the national economy are indispensable conditions for development and job creation. Employment policies are best set subject to social efficiency criteria distinct from the salient neoclassical productivity ones. It is highly unlikely, in view of the sheer smallness to which industry and the productive economy have shrunk under neoliberalism, that it would be possible to reemploy the massive redundant labour force on the basis of expanding private-sector expansion and productivity gains. A criterion valuing and remunerating social work may be costly in the short term, but the social returns will reimburse initial expenses over the long term. Notwithstanding the reductionist nature of the neoclassical criterion of efficiency, equity, in an Arab context of war and oil, must precede any received criteria for efficiency. More egalitarian rent, land and resource distributions redressing the dispossession of the working population during the neoliberal age represent the necessary conditions for effective demand enhancement and a successful development strategy. In practical terms, the state has to act as the employer of last resort (Minsky's ELR) creating socially relevant and public sector employment. Increasing-returns industry and a granting of preferential status to regional capital and labour are also required. In view of the instability besetting capital accumulation, a regional security arrangement bolstered by working class security and substantiating autonomy over policy can underwrite long-term employment generating investment.

Introduction

The unemployment rate in the Arab region is among the highest globally. Despite high growth rates from 2002 until 2010, it remained in the double digit category. This poor employment response to economic growth implies that there is something deeply flawed with the policies in place. If the reason for its persistence was related to the International Financial Institutions (IFIs) 'macro fundamentals,' then up to the point at which the Arab revolutions began, these were well positioned: the fiscal accounts were reduced or in surplus, the inflation rates were moderate and declining, and reserves were covering around two years of imports. Despite that, the unemployment rates rose and income inequality gaped away. In the neoliberal age, undemocratic western-backed regimes deconstructed the productive economy. Progressively, the productive economy became too small relative to the sheer size of the labour force. In the preponderance of rent, value and wealth were extracted by pauperising and disempowering the working class. The rate of job creation fell faster than the rate at which the labour force grew. Labour share became excessively low. In retrospect, public sector employment and declining productivity growth have been to a large extent welfare enhancing and have acted as a social safety valve in the absence of unemployment insurance programs. As early as 2004, it was plain to see that 'the predisposition of major macroeconomic and demographic variables towards an inevitable collision implies that there is little space for argument over the

¹ The Arab world is defined as per boundaries of the Arab League.

² I am indebted to many colleagues who contributed to this essay, all shortcomings however are mine.

unavoidability of change. The built-up of imbalances in a regional economy that does not expand at a rate commensurate with the demands of the demographic transition means that change cannot be gauged as a matter of degree.³

Advocates of neoliberalism recommended private-sector led development. As the mantra of the private sector took hold, public sector investment retreated and the regional investment rate fell from a high of 30 percent in 1980 to below 20 percent in 2010. Not only did the share of investment in income fall, but the type of investment became less productive and labour saving.⁴ Productivity became on average more dismal.⁵ On the whole, however, the Arab world remained an excess saving and a capital-outflow region. The oil boom, which began in 2002, represented a chance occurrence that could have been translated into employment and welfare gains, however, the policy framework remained flawed. The principal link between growth and poverty alleviation, which is employment creation, was already decimated. Moreover, wars, the threat thereof, and internal elements of instability infuse uncertainty into the decision making context and hamper capital accumulation and employment growth. In this essay, I will firstly examine the unemployment issue and, secondly, chart the policy terrain in search of ways to contribute to the discussion on employment creation in the Arab world.

Pre-analytic

Judging by the published figures, unemployment rates responded poorly to the ongoing bout of economic growth fuelled by high oil prices which began in 2002. There was roughly a two to three percentage point drop in unemployment over a nine-year period (2002-2009) that witnessed a cumulative growth rate of around 45 percent.⁶ This weak response in job creation to growth points to deeper reasons associated with the nature of the accumulation process that disrupt the intermediation between economic prosperity and social development. The received theory adopts a neo-Malthusian bend and points to a demographic transition and overpopulation as a partial cause of regional unemployment. The very shrinking of the productive base however, which was subjected to piecemeal neoliberalism since 1980, meant that the disengagement of people from production, which is inherent to capitalism, became a more pronounced systemic mark of the new Arab economy. Thus, when for every person finding a job in the eighties, there were two new entrants into the labour market reaching working age, by the late nineties, there were nearly four new entrants to every person finding a job.⁷ The rate of job creation fell much faster than the rate at which the labour force grew.

Meanwhile, with open capital and trade accounts, financial and other resources were fleeing the Arab region. The emigration of labour, in particular, a resource whose social cost of reproduction was borne by the home areas was grabbed at *cheapened* wages (my emphasis, labour is not cheaper, it is cheapened). The bulk of financial resources was deployed abroad or into low productivity areas such as real estate and away from endeavours that would create decent jobs. A significant proportion of the region's resources served to maintain regime security. The Arab region spends twice as much as any other region on defence.⁸ The negative impact of leakages on internal demand and the ensuing demand for labour were

³ <http://books.google.com/books?id=5RCfx-Jd7o4C&printsec=frontcover#v=onepage&q&f=false>

⁴ Ibid, issue three 2005.

⁵ ILO, KILM, various years.

⁶ United Nations, 2009.

⁷ http://books.google.com.sg/books?id=5RCfx-Jd7o4C&printsec=frontcover&redir_esc=y#v=onepage&q&f=false

⁸ SIPRI, Yearbook 2008, Table 5A.1.

daunting. While unemployment was rising, the rentier/merchant dominated Gulf region, in particular, employed nearly fifteen million expatriate workers from Asia at drastically low wages and subject to inhumane conditions.⁹ For this situation to be overhauled, it would require a change in the decision making context as well as in the agency of development. It would require, in line with the Keynesian euphemism some form of 'euthanasia' applied to the rentier/comprador class. After three decades of neoliberalism combined with unsightly forms of political repression, the hard-hitting fact remains that there are plenty of idle financial resources, huge numbers of unemployed labour relative to existing capacity, and a shrinking productive economy that could only hire but a fraction of the reserve army of labour under the putative efficiency criteria.

The excess in savings over investment in the still underdeveloped Gulf States alone is calculated at more than 1,500 billion dollars since 2002. It is at around 4-5 trillion dollars since 1971.¹⁰ The reasons for this gap between available financial resources and the low rate of real resource deployment and utilisation go beyond a price incentive that guides resource allocation. The market structure, which is oil rent-driven, holds back resource redeployment nationally because the interests of regional and extra-regional capital reach their optimal gains at a point that renders any serious form of redeploying resources to build national capacity a transgression on the degree of control of imperial powers over oil resources. Under-developing the region ensures the weakening of popular sovereignty and, by implication, strengthens the hold of a cross-border class alliance composed of local comprador and global elites over oil resources. The region is important not because of the pittance in money-form profits that could be drawn out of it (total Arab income is around two percent of global income), but for imperialist control and positioning, which bolster global, particularly, American elite and imperial hegemony over the globe.¹¹

Notwithstanding the exigency of placing equity before efficiency in order to create jobs, it is invariably the role of an effective demand component that is ideally fuelled by state-supported productivity gains, that has been purposely overlooked by past and present IFI's regional policy. The Kaleckian hypothesis that may be re-invoked to support the case for a demand led employment strategy is that both *unemployment and real wages are demand-determined* not price-determined. In this sense, real wages are determined in *the product market rather than the labour market*.¹² Whilst money wages are determined in the labour market, where trade union activity takes effect, real wages are relatively little influenced by the conditions in the labour market and are effectively determined by the degree of monopoly and leakages to external markets. From this angle, when money wages fall, the general average price (specifically the cost-determined prices) will adjust downwards to this decrease in wages, thereby having no final effect on real wages. Secondly, the *relationship between real wages and the level of output is not straightforward* to predict.¹³ When real wages decline, there is no

⁹ http://www.banglarights.net/news_and_issues.php?story_id=125

¹⁰ World Bank's WDI, various years.

¹¹ There are also internal reasons that constrain national development/industrialisation and, consequently, produce higher unemployment. The articulation bonding the 'rentier' conjointly with the state displays few signs of weakening. The prospect of the rentier class relinquishing power or forms of control that have so far worked well for its regional and extra-regional beneficiaries, seems highly unlikely. As it has been said, no social class commits suicide. The continued bloodshed marking the Arab spring is ample proof of the tenacious grip of the rentier on the state. Lecture notes to the Historical Materialism Conference, by S. Avramidis, <http://mercury.soas.ac.uk/hm/pdf/2006confpapers/papers/Avramidis.pdf>

¹² Sawyer, M. (1985).

¹³ Kalecki, M. (1972).

implication that low real wages causes high output, rather than that both result from a high level of aggregate demand. Similarly, in the *General Theory*, Keynes wrote as follows:

Perhaps it will help to rebut the crude conclusion that a reduction in money wages will increase employment 'because it reduces the cost of production', if we follow up the course of events on the hypothesis most favourable to this view, namely at the outset entrepreneurs generally expect the reduction in money wages to have this effect. ...if, then, entrepreneurs generally act on this expectation, will they in fact succeed in increasing their profits? ...The proceeds realized from the increased output will disappoint the entrepreneurs and employment will fall back again to its previous figure, unless the marginal propensity to consume is equal to unity or the reduction in money-wages has the effect of increasing the schedule of marginal efficiencies of capital relatively to the rate of interest and hence the amount of investment.¹⁴

In short, real wages are basically affected by the power with which *trade unions can affect money wages relative to increases in prices*. When measures are taken to lock in resources enabling their recirculation within the national economy, it becomes specifically this coordinated labour/trade unionist activity under an inclusive social contract that would ensure a rise in living standards commensurate with economic growth. However, the IFIs neoliberal framework has emphasized mainly supply-side concerns and unlocked the capital and trade accounts facilitating the transfer of value to the centres of finance in dollar denominated terms and under highly unequal power structures. In one of many instances that only appear on the surface of things as an absurd oversight, the reductionist doctrinal method of the IFIs had intently overlooked the obvious, which is the nature of undemocratic Arab regimes that have rendered trade unions and civil society in general, if they were allowed to exist at all, into ineffectual appendages of the comprador classes. Apart from the gruelling human rights record of Arab regimes, a 2007 report by the International Trade Union Confederation, for instance, indicates that 'workers in the Arab region still have fewer trade union rights than anywhere else in the world.'¹⁵

Although necessary, coverage of the virtues of demand side perspective alone will not do justice to the issue. Underdevelopment is a holistic social condition and a capacity problematic. The capacity deficit cannot be tackled by supply or demand side policies that were tailored for advanced economies. Western economies already have intricate and complex supply chains. Underdevelopment is both a supply and demand side problematic at once. It is also a qualitatively different subject. Consider for example the labour market in the Arab world. Supposedly it is a place where labour services are exchanged for money value. In an Arab labour market however, the labour share forms around 25 per cent of total income (it is around 65 per cent in advanced economies), productivity is persistently declining and, if a more comprehensive form of assessing unemployment is carried out, one that imputes a historically determined living standard into the measure, nearly half of the labour force could be considered unemployed.¹⁶ Most of those remaining employed will be clients of the rentier state (not workers who exchange labour service for a money wage but rather submissiveness for the same). Similar differences with the developed world can be construed across all markets. Persistent quantitative dissimilarities imply that the social setting making up the conditions for the hold of ruling classes on the mode of accumulation in the Arab world

¹⁴ Keynes 1964 [1936], p. 261.

¹⁵ Annual Survey of Violations of Trade Union Rights (2007).

¹⁶ Ataqir Alarabi al Mouwahad, League of Arab States (2005).

requires the immiserisation *qua* disempowerment of the Arab working class for the seizing of wealth in the form of rent. A crucial point to recall here is that there is more wealth to be snatched in the form of rent as distinct from productive growth in the Arab world. Imperialist dilapidation of the Arab region is undertaken for its implication upon global accumulation more so than for what would be drained from it in value-added production (as mentioned the Arab world makes around two percent of world income). The oil-determined mode of integration of the Arab world into the global economy, the repression attendant upon the labour process, and the power structure regenerating imperial control qualify this process as sub-specie of capital manifest in severe crisis and frequent violence.¹⁷

To construct an imaginary free market loosely based on the Western model as a conduit to development in the Arab world is a misrepresentation of fact.¹⁸ Arab markets are dissimilar because the comprador bourgeoisie, in its subordinate relationship to world capital must reproduce the conditions to disengage the Arab working population from the production process to curb their control over their natural resources. In the absence of a Western type market and a dynamic rise in productivity associated with the non-oil sector of the economy, I will argue that for the right to work to be implemented, equity has to precede the putative notion of efficiency for job creation to proceed.

Overview

While it is difficult to offer reliable statistics, widely accepted estimates put overall Arab world unemployment rate in 2010 at around 13 per cent (KILM, various years). This figure is approximately twice as high as the international average. In the conflict areas of Iraq and Palestine unemployment rates in 2007 were, respectively, 27 and 29 per cent.¹⁹ In any case, when in a state of conflict or when nearly half the population spends around half of its income on basic food, official measures of unemployment ring hollow.²⁰ As per the customary in capitalist labour markets, youth unemployment rates have been considerably higher. In Jordan and Egypt, for instance, these were 3.6 and 5.9 times the adult unemployment rates, respectively. Furthermore, female employment averaged a mere 25 per cent of total employment in agriculture, 17.9 per cent in manufacturing and 26.7 per cent in services. The corresponding world averages are: 39.9 per cent in agriculture, 31.2 per cent in industry and 45 per cent in services.²¹ When an economy does not produce sufficient jobs, it is predictable that young entrants into the labour market will incur more of the unemployment. Oddly, the litany of mainstream literature addressing the unemployment of the youth and the so called 'youth bulge' prior to the uprising treats the issue of youth unemployment under peripheral capitalism as a surprising anomaly.²² The purpose of this literature however is not innocent. It is to avoid the innate underpinnings of the unemployment problematic under capitalism,

¹⁷ See lecture entitled Articulation by the power of the Gun, Soula Avramidis, Historical Materialism Conference, London, (2005).

¹⁸ There is a paucity of data about labour markets in the Arab world. This data I gleaned from KILM (ILO) and other sources during my travels in the region. I have written about the subject of putting equity before efficiency in the designation of policies on several occasions; the most recent can be found: <http://www2.lse.ac.uk/middleEastCentre/events/2011/KadriAli.aspx>

¹⁹ United Nations (2007a, pp.2-5, 2007b, p.7) and Abrahart, Kaur and Tzannatos (2002, p.26).

²⁰ http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2011/05/27/000001843_20110601143246/Rendered/PDF/P126506000AWIFS000PID000Concept0Stage.pdf

²¹ UNDP and LAS (2008, p.22).

²² http://www.escwa.un.org/divisions/div_editor/Download.asp?table_name=divisions_news&field_name=ID&FileID=735

which, in the context of the Arab world, was infused and exacerbated by a lethal combination of rentierism and imperialism.

Also, in the case of women unemployment, when income is rooted in rent, a bundle of repressive measures are taken against women to institutionalise their disempowerment socially and politically. Rentiers draw little of their incomes from more skilled labour and need not re-invest in labour. The idle labour of men and women, although remaining outside production, is by its very inactiveness part and parcel of the material of capital as it creates the social regression needed to cheapen labour.²³ Matters are worse under Arab rent regimes and obfuscation is deployed to divert attention from the rent-based accumulation process to some concocted cultural reason that would, in some instances, go as far as disallowing women from engaging in productive activity on the basis of a reinvented religious taboo. Real disengagement transmutes into some form of subliminal displacement based on myth; however, the real purpose of the austere measures banning women from engaging the full spectrum of productive activity is their disempowerment.²⁴

Under pressure from inflation and in the absence of autonomous unionism, real wages in the Arab world have been falling for the best part of the last two decades.²⁵ In the case of Egypt, the real wages fell by almost half as of 2007.²⁶ Yet despite falling wages, there was no expansion in employment based on the Laissez-faire premise that lower wages would result in higher employment. Moreover, there is a weak employment to income elasticity link in the Arab region. The basic problem can be explained as follows: if the present labour absorption rate is such that it took a 45 percent growth rate over nine years to bring down the unemployment rate by two or three percentage points, the economy may need to grow at levels exceeding ten percent per annum in order to merely stabilise the labour market over the next ten years. These are rough estimates, but one is well advised to recall that for most of the Arab world, adequate data is a scarce commodity. Ironically, the incapacitation of the Arab world meant that it is unable to produce anything of complex value added, including nevertheless statistical figures and measures that would assist it in developing policy.

Based on what is available, per capita average economic growth rate in the Arab world was negative in the eighties and around zero percent in the nineties.²⁷ A huge number of despondently unemployed persons has been amassed. These are people who had lost hope and who eke a bare existence in the informal sector at poverty wages (nearly half of the workforce by absolute poverty measures). It is highly unlikely that higher (productivity based) growth rates would be able to absorb the mass of unemployed after a significant period of economic underperformance or low labour absorption economic growth.²⁸ The remaining hub of productivity/job growth represents less than a quarter of the actual economy.²⁹ Put succinctly, it is not realistically possible to engage the massive redundant labour force in the economy without driving productivity further down, which means that the existing money-form measure of economic performance can no longer serve a benchmark for employment creation.

²³ <http://www.marxists.org/archive/marx/works/1867-c1/ch30.htm>

²⁴ Nawal Saadawi, (1997).

²⁵ ESCWA (2007b, p.10).

²⁶ These gross estimates are provided a former colleague from the United Nations.

²⁷ United Nations (2009b).

²⁸ United Nations, (2007) and Karshenas (1994, p.20).

²⁹ United Nations (2009b).

The low response of employment to growth can be said to be partly due to the high capital intensity in the oil industry. The weak internal multiplier of this industry has dampened the already limited employment-generating impact of the current boom, which especially affects new entrants into the labour market (nearly all Arab countries are gas and oil exporters including Egypt).³⁰ In addition to this dynamic, ever since the decline in the rate of job creation by the public sector beginning in the early eighties, the unemployment problem grew and became intractable. Low rates of investment contributed to putting back the Arab region in terms of job creation and overall development. Certainly the high dosages of repression experienced in the Arab world imply, at least in terms of the freedom paradigm, that development has gone backward. Notwithstanding the imperialist intervention, which had left in one of its aggressive episodes more than one million children abandoned in the streets of Baghdad, the interface between the neoliberal policy framework and outcome, all on its own, has also contributed to worsening social conditions.³¹ Child malnutrition rates in Egypt and Yemen stood at 45 and 30 percent respectively prior to the Arab spring.³² In retrospect, all measures, political and economic, were carried out to expand the reserve army of labour, cheapen and disempower the working population in the Arab world.

Mainstream views

The kernel of mainstream analysis holds that state intervention and inefficient public sector employment reduces domestic economic dynamism, and accentuates the impact of fluctuations in oil prices.³³ It is commonly held that although this strategy may be justifiable during relatively stable periods or in brief downturns, it is highly ineffective over the long term, in periods of sharp volatility, or if the price of oil declines significantly.³⁴ The strategy of state intervention, one may note in passing delivered some of the highest employment generating growth rates in the Arab world between 1965 and 1980. Typically, the mainstream view holds that state intervention leads to resource misallocation, the proliferation of rent-seeking activities, and persistent economic underperformance. No trade or capital account protection can offset the decline. Eventually, the state itself becomes unable to absorb the growing pool of the unemployed. The frail economy prevents the generation of new economic activities which could offer alternative sources of employment and wealth creation.³⁵ The solution then is for additional employment to be generated through lower wages and more flexible employment conditions (including lower non-wage costs to the employers, e.g., social security and pension contributions). However, this adjustment strategy, if it works at all when more than half of the population lives in abject poverty, would tend to provide incentives to labour-intensive and low productivity industries. Absurdly, given the huge numbers of unemployed that would have to be absorbed, it is safe to say that, if all works according to 'the low-wage plan,' many will perish from hunger and the impact on demand, measured in terms of spending on basic food, will be insignificant.

The alleged transition to employment occurs when rigidities of labour market and real wage, as well as public sector employment shrink. These distortions are said to reduce investment

³⁰ United Nations (2007b, p.17).

³¹ <http://www.aljazeera.com/video/middleeast/2011/05/201151041017174884.html>

³² <http://www.un.org/apps/news/story.asp?NewsID=41037&Cr=yemen&Cr1=http://mrzine.monthlyreview.org/2009/irin081109.html>

³³ Gardner (2003) and Tzannatos (2002).

³⁴ One ought to mention tangentially that if a policy worked throughout the post-war period and until 1980, would this long period not constitute a long term (World Bank, 2004, p.2).

³⁵ See, for example, World Bank (2007).

and productivity growth, and to lead to insufficient employment creation in the region. Typically, the orthodoxy suggested opening the local private sector to stronger international competition, while strengthening the institutions that support markets, encourage investment and stimulate productivity growth. Instead of positive impacts on employment through targeted labour market reforms including, for example, more flexible labour market regulations to enable firms to respond more promptly to market signals, these measures resulted in higher unemployment rates.³⁶

The labour markets in the Arab world are anything but rigid. The supply of workers remains elastic as poverty rates are excessively high. Real wages are flexible because autonomous unions under dictatorships do not perform their function and the elite-biased legal structure vitiates workers' rights. As mentioned above, although no accurate data on wages exist, real wages steadily fell in the lost decades of the eighties and nineties.³⁷ For example, real hourly manufacturing wages in the oil exporting economies fell by almost half between 1986 and 1992, and recovered only slowly by the end of the decade.³⁸ The workers strikes in Egypt prior to the uprising were in response to high inflation and non-adjusted wages. The public sector has often spearheaded the process of wage compression and 'flexibilisation' of the workforce in Arab countries.³⁹ In sum, the so-called 'rigidities' of the labour markets in the Arab world, where they actually existed, have had an important *stabilising* and *employment-creating* effect during the adjustment period.⁴⁰

What these policies overlook is the extent of contradictions in social systems. These approaches have been formally teleological and stress short-term measures that obviate the long term basis of development as a social process.⁴¹ Rent-based growth does not require investment in labour, for the simple reason, that income is derived from rent fallout. The real waste and efficiency costs are related firstly, to the idleness of resources that a class-based monetary system cannot galvanise and, secondly, to the flight of resources, of which, the emigration of labour whose social cost of reproduction was borne by the indigenous formations represents the epitome of surplus drain.

Labour demand in a developing context does not derive from demand only but from holistic development. Notwithstanding its massive import dependency, the most important structural factor explaining the reproduction of unemployment, poverty and vulnerability in the Arab world is its subjugated mode of integration into the world economy, especially its heavy reliance on oil and geopolitical rents.⁴² At the macroeconomic level, this mode of integration generates a significant vulnerability in the oil-rich economies to shifts in the price of oil and to symptoms of Dutch Disease (only symptoms and not the litany of outcomes manifest in the Arab world making it an Arab disease rather than a Dutch one),⁴³ and to resource leakages through the export of savings, high defence expenditures and capital and resource flight. As evidenced by the dire social conditions uncovered by the Arab spring, the cross-border class alliance between Arab regimes and Western elites botched development and created powerful tendencies towards the reproduction of unemployment, poverty and inequality.

³⁶ Gardner (2003, p.11).

³⁷ El-Mikawy and Posusney (2002, p.82).

³⁸ See World Bank (2004, p.115).

³⁹ The case of Yemen is examined in UNDP (2005).

⁴⁰ United Nations (2007b, p.15) and United Nations 2004, Analysis of Performance.

⁴¹ Fine and Stoneman (1996) and McKinley (2001).

⁴² United Nations (2006).

⁴³ United Nations (2007d).

Development under uncertainty

Neoliberalism, which adopts laissez-faire economics as its frame of reference, is based on the claim that economic development depends primarily on the creation of an enabling environment for the private sector, including free markets and free flows of trade and finance. Promoting fiscal stability at the expense of public investment in social and physical infrastructures and relying heavily on indirect taxation in contrast to more socially responsible progressive and capital gains tax is perceived to contribute to development mainly through the transfer mechanisms and processes of resource allocation from governments to the private sector. Presumably, given these conditions, economies will naturally grow. However, after nearly three decades of neoliberal transformation, the Arab region exhibited the highest 'official' rate of unemployment in the world, as well as the highest rate of income inequality and the lowest rate of global investment.⁴⁴ In quantitative terms, since the start of piecemeal neoliberalism in the early 1980s, Arab economies have experienced lethargic growth. Calculated over 30 years, the real GDP per capita growth average in the Arab world is around one percent.⁴⁵ Declining investment in industry, plant and equipment, which are the types that require long-term stability and sizeable markets, can account for the greater part of this poor economic performance.⁴⁶

The economic history of the Arab world came to mimic that of the western world: a pre-1980s state-interventionist golden age and a post-1980s monetarist leaden age. In the 1970s the less-oil dependent economies (e.g. Egypt and Syria) combined an average growth rate in GDP per capita of almost 5.8 percent with a trade deficit to GDP ratio of about 15 percent. In the 1980s, with the onset of neoliberal policies, the average growth rate in GDP per capita fell to nearly zero percent, while the trade deficit to GDP rose. During 1990-2000, the average annual per capita growth rate was around one percent, while the trade deficit kept on rising. A comparison of growth and trade deficits of the 1990s as against the 1970s of all the Arab countries shows that, on average, piecemeal trade openness crushed incomes and accentuated national income differences. Rapid trade liberalisation not matched by increased market access to developed countries, as well as potential exchange rate instability linked to relatively greater capital account openness and increased volatility of private capital flows had driven resources away from the national economy. With this policy interface in place and backed by absolute political authoritarianism, when the more recent oil-driven growth episode began in 2002, it did little to improve social conditions; income inequality and higher import rates- boosted by demand for luxury goods, persisted.

At its genesis, induced private investment growth hinges on prospective returns and the degree of risk. For Kalecki, the investment-growth nexus, defined as the inducement to invest, is determined by the gap between the prospective rate of profit and the rate of interest. Future theoretical advances are permutations of this core idea.⁴⁷ The rate of capital accumulation depends on profitability, which, in a circular manner, depends on economic growth. If interest rates were to suddenly fall, it follows that the risks would be lower, the capital output ratio

⁴⁴ <http://www.un.org/Docs/journal/asp/ws.asp?m=E/2008/20>

⁴⁵ Records based on World Bank's WDI, various years.

⁴⁶ <http://books.google.com.sg/books?id=5dGBCJpdiMcC&pg=PA19&lpg=PA19&dq=keynesian+leaden+golden+age&source=bl&ots=WQUEPyochI&sig=MHbtgr4bK-J7XR8WQJeHUR6KYk&hl=en&sa=X&ei=wefuTsCMNpDtrQeancTkCA&sqi=2&ved=0CDkQ6AEwBA#v=onepage&q=keynesian%20leaden%20golden%20age&f=false>

⁴⁷ Kalecki, 1935.

would be higher, and the growth rate would rise.⁴⁸ Although analytically sound, this argument is not fully compatible with the specificities of the Arab world.

Assuming that returns can be redressed through bolstering balanced growth (meaning proportional growth in all sectors), it is the component of risk that is definitively challenging in the case of Arab states. In view of the various internal and external security concerns, some Arab states carry within them the potential for complete failure. The risks to investment in the Arab world are serious because the stability elements constituting the context for risk cannot be considered manageable over the long term. Keynes, having lived through a major war, differentiated between unquantifiable uncertainty and quantifiable risks. He noted,

By “uncertain” knowledge...I do not mean merely to distinguish what is known for certain from what is only probable...The sense in which I am using the term is that in which the prospect of a European war is uncertain...About these matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know.⁴⁹

The prospect of war, of which there is no shortage in the Arab world, alters the background for investment decision-making, making it mired in uncertainty. Thus, a re-qualification of the concept of risk as it pertains to the Arab world is needed.

The risk function in the Arab world is only partly associated with typical market and price volatilities. Rather, it is one in which the bulk of capital assets could wither instantaneously as the state collapses. Lebanon, Sudan, Libya, Yemen, Iraq, Somalia and Syria represent examples of crumbling states which may later be resurrected in a weaker and splintered form under the Western rubric of nation building. Accounting for the fact that what would be rebuilt later would be a tribe or sect and not necessarily a state, the investment function in the Arab world remains subject to time incoherence and structural shifts. There is a case of *historical uncertainty as distinct from actuarial risk*. Although the ordinary types of market risks will always be present to some degree, the potential for complete collapse is ominous. The uncertainty shifts the ground beneath inter-temporal preferences and brings the horizon of the future closer to the present. In a nutshell, there is no future to plan for when the institution of the state—as the institution of all institutions—exhibits a high probability of being withered away. Investors will be primarily concerned with how returns must redress initial capital costs within a short gestation period. Subsequently, money capital takes the form of unrequited transfers, turns into capital flight, and/or gets lodged in speculative and ephemeral investment endeavours.

Uncertainties that could unfold on complete collapse thwart private-capital's drive to invest over the long term. When public investment into the social and physical infrastructure became restrained by laissez-faire policies under neoliberalism, private investment moved into short term speculative and return activity. The capital output ratio became lower and the growth rate exhibited higher volatility in line with fluctuating oil prices. More importantly, the retreat of public investment was not offset by private investment. Even if one assumes that the private sector can carry out the task of development, raising investment under these tenuous conditions must be preceded by ensuring stability over the long run through enhanced democratic, communal, and national security. These changes, which principally empower the Arab working class by providing it with security from want and sovereignty over national

⁴⁸ This is Kaldor's interpretation of Kalecki. See F. Targetti and A.P. Thirwall, 1989.

⁴⁹ Keynes, 1937.

resources, can constitute the institutional groundwork to underwrite a nexus of investment and growth.

Broadly put, development is about the redeployment of real resources. Many still underdeveloped Gulf States, which are financially rich, do import already manned factories wholesale, staff and machines; however, without the necessary linkages to the national production base and the supply-chain network, these will not impart development. More pertinently, underdevelopment cannot be tackled by supply or demand side policies tailored for advanced economies. It is both a supply and demand side issue at once. As mentioned earlier, the Arab economies valued in money form are altogether small and compose around two of world income. Paradoxically, 'small markets would induce small investment and the reciprocal condition also holds.'⁵⁰ In an apolitical context, Nurkse resolved this problematic by suggesting a state-funded big-push approach that would boost demand and supply simultaneously. The subsequent crowding-in of private investment would raise incomes and break the vicious circle of underdevelopment. The Arab context however, is politically charged. The one sided supply policies of the laissez-faire age did exactly the opposite of what is needed for development, and it did so purposefully. Being an instrument of imperialist aggression, neoliberal policies had to create a social disaster and deconstruct productive capacity for the purpose of cheapening national resources in money-form denominated by the dollar so that they can be grabbed.

On the face of it, there is a straightforward reason why these policies were undertaken purposefully. Laissez-faire means let do or do as you like. How difficult would it be to see that despotic Arab regimes should not do as they like. In the absence of an equal playing field, laissez faire policies gave local and global elites *carte blanche* to do as they like. Development policy became primarily one of redressing public account shortfalls with much spending centered on building political allegiances and regime stability. These policies, implemented under Western backed authoritarian rule, were adopted at a time of demographic transition, and the developmental failure was inversely blamed on population growth. Yet it is the policies themselves, rather than high birth rates, that disengaged real resources to the detriment of the real economy. The shrinking of the productive base meant that exclusion, which is inherent to capitalism, became a more pronounced systemic mark of the new economy. While the majority of the labour force was becoming effectively unemployed as a result of the shrinkage incurred by the productive economy, the policy advice of the World Bank and the ILO remained set on private sector-led development and supply-side aspects of the labour market.⁵¹ Synchronising human capital to the demands of physical capital is no longer the issue to tackle, for there was little physical productive capital left to employ either an educated or an uneducated labour force.

As elsewhere, neoliberalism was introduced on premises that were incompatible with the inherent conditions of the Arab world. The very market that neoliberalism aims to free does not exist in the Arab world. In the Arab world, there are oil economies, war economies and de-industrialising economies.⁵² These are the real markets. The concocted free market, its marginality conditions, and its adduced efficiency criteria cannot guide a real economic process; the result has been the transformation from an even-distribution public sector-led economy with a paternalistic welfare state to a highly uneven private sector and privately-

⁵⁰ Nurkse, 1952.

⁵¹ <http://www.ilo.org/public/english/region/arpro/beirut/downloads/events/qatar/skills.pdf>

⁵² Refer to the series of Surveys known as the Survey of economic and social conditions in Western Asia, United Nations, from 2005 until 2009.

owned public sector-led economy. Under dictatorial class rule, income differences soared and laissez faire has meant more of a trickle-up than a trickle-down effect.⁵³

In a more concrete sense, over the past thirty years the Arab world has been contracting socially and economically. The share of oil constitutes on average nearly 40 and 55 per cent of Arab world and GCC income respectively. Income is principally derived from oil rents and much of it does not get ploughed back in the productive side of national economies for fear of risks, alleged 'lack of national absorptive capacity' or both. Ironically, lack of absorptive capacity is often the argument put forth by small wealthy oil-states to explain their underdevelopment. Lack of absorptive capacity in underdeveloped countries represents a false alibi under which comprador elites funnel their capital abroad. When productive capacity is low, public investment crowds in private investment and the impact on the price level is tolerable. But still, it may be relevant to recall the overarching condition of conflict-instilled risk and its impact on inter-temporal preferences, institutional intransigence, and the already inherent uneven developmental state of the Arab countries represent insurmountable barriers to development and job creation.

A particular form of capital accumulation

Although capital accumulation entails a blend of expansion of market driven forces (commodity realisation) and development by encroachment and dispossession (control by violent means including imperial grab of third world resources), in the Arab world, the latter pattern held primacy. Oil in its raw form, in the way it is priced in the dollar, and in the infinite scientific permutations of its derivatives creating value added, represents a decisive constituent of global accumulation – the control of which is central to maintaining the stature of US Empire, the present global financial order, and associated imperial rents. The articulation of the 'Arab social formation' with global capital is defined in terms of a cross-border class alliance of global capital elites and Arab regimes. The reproduction of this relationship is maintained by outright military superiority and violent subjugation of Arab working masses.

Wars, or the serious threat thereof, are the rule and not the exception in the Arab world. The very persistence of conflicts in the Arab world mediate lingering and un-weathered inter-imperialist rivalries between the US and other powers in Europe and Asia over the disproportionate acquisition of imperial rents derived from the stature of US empire. The mismatch between America's waning economic dynamism and its unchallenged imperial rank, which in part manifests itself in growing US military adventurism, endangers the global financial structure; central to which, the dollar as the universal medium of wealth holding, which ultimately creates uneasiness about the disposition of imperial partners towards future inter-imperialist collaboration and wealth denominated in dollars. Militarism, as a consequence, remains the principal province of accumulation, which reigns over much of the lower end of the third world and, most particularly, the Arab world.⁵⁴

Pursuant to successive assaults, the social disarticulation of Arab formations have become more pronounced on both the national and regional level. Rifts have widened between national social classes and regional states. As differences between Arab countries grow, the

⁵³ University of Texas Inequality project: <http://utip.gov.utexas.edu/data.html>.

⁵⁴ <http://petras.lahaine.org/?p=1857>
<http://www.marxists.org/archive/luxemburg/1913/accumulation-capital/index.htm>

social and geographical depth resulting from third world regional solidarity, which attenuates risk has become compromised as a result of the surrender to imperialism. Lost also in this fragmenting process are the complementarities that could have arisen between Arab economies with different resource endowments. Naturally, intra-regional trade sunk to around ten percent of total trade and most commodity trade occurred between individual Arab countries and the rest of the world.⁵⁵

There are, of course, subtle reasons for the national divides, but if questions of degree were to matter, it is principally the high degree to which regional resources are controlled by narrow private as opposed to public interests (including nonetheless the privately controlled public sector) that constitute the *raison d'être* for divisiveness. Private interests can also include the interests of foreign capital conjointly with regional capital; however, it is difficult to draw a demarcation line separating national and foreign capital in the financialisation age. For national capital, it is not only the magnitude of the rate at which the future value of assets is discounted that tends to matter when calculating the loss from foregoing present for future gains; it is rather the high magnitude of the privately owned assets -rent grab, relative to the huge masses who do not hold assets and are partners in the social contract. The steepness of the divide, keenly supervised by imperialism, hinders the formation of a development-mediated social form of organisation. In view of the strength of the 'political hold' on 'economic returns' and/or in the ambiguity surrounding the ownership lines that mix the private with the public sectors, any re-distributional strategy can be perceived as harmful to the haves vis-a-vis the have-nots because it will undermine the rent appropriation mechanism. It is the strong hold of the coalition of international/regional capital on the state, which allows for surplus usurpation that depletes the economy of the capacity to regenerate itself. More concretely, it is the absence of institutions that intermediate private and public social interests in a democratic context combined with the dominant role of imperialist intervention that compose the terrain of uneven accumulation.

The skewed initial endowment, the anti-labour bias of institutions, and the laxness of an international resource mobility arrangement made indispensable the transfer of resources abroad. The purpose was to disempower working people. For that, accumulation by encroachment exacted a halt to progressive social reform and an inflation of the ranks of the unemployed. Despite the fact that unemployment was rising, between 1980 and 2010, seventy million people moved from rural abjection to urban squalor. The share of the rural to total population in the Arab world dropped significantly from about 60 percent to about 40 percent.⁵⁶ This conservative estimate is nearly equivalent to the total number of rural-urban migrants since the beginning of the twentieth century until 1980. Basic food production was decreasing and food imports were rising in this highest per capita food dependent and scarcest-water area globally. The agricultural sector, which is the last stronghold that could offer social support to huge parts of the working population was shrinking relative to the

⁵⁵ United Nations (2009a)

⁵⁶ These are very conservative estimates based on fixed coefficients of population growth and rates of rural-urban migration. These estimates do not include migration outside the Arab world. A middle range estimate would put this figure at around one hundred million. The rationale for my calculation has to do with the constancy of certain rural population characteristics. 'In most Arab countries, there has been little change in rural fertility in the past and the prospects of its appreciable drop in the next 10 years are remote; despite a fall in infant mortality rates in rural areas, life expectancy is not projected to increase significantly in most rural populations of the region, and major declines in both fertility and mortality in Arab countries have been largely limited to urban areas; and in the absence of reliable data, the best and perhaps the safest course for making rural population projections by age is to assume a constant rural population age structure for the period 1980-2015.' The Demographic Profile of Arab Countries Ageing Rural Population, United Nations, 2008.

economy in order to socialise propertyless farmers. Since 1980, the share of investment in agriculture from total investment fell continuously to reach a low of five percent by 2009.⁵⁷ In Egypt, the most populated Arab country, the decline in agriculture was drastic and within a decade the share of agricultural investment from total investment fell from around 10 percent to about 4 percent.⁵⁸ These were concerted and premeditated efforts aimed at weakening the working population and reconstituting social value for grabbing purposes by absolute and violent means.

Arab resources, including labour, are captive to an accumulation structure that is redeployed in time and space through divestiture. Reorganizing the social formation in a way to lock in resources for the purpose of development would entail a shift in the parameters that define the intraregional as well as the extra-regional class alliances. The foreboding element of oil control incarnates the determining moment in this process. However, the politics of oil are more extra-regionally determined, hence, the structure of accumulation by expropriation will remain unchanged so long as global powers reposition their imperial ambitions to be at odds with the welfare of the Arab working population. There always exists a primacy of politics when values and wealth are generated by a class structure organised under the nation state. Not that the primacy of politics is peculiar to the pauperisation of the Arab world, but the concept of 'primacy of politics' assumes new dimensions since these war and abjection stricken formations matter more in how they could further imperialist interests as a result of their outright immiserisation rather than from what their productivity based growth and employment policies could add to value.

A particular policy approach

Arab social formations are monumental developmental failures and are not producing adequate jobs. Mainstream policies do indeed analytically list a variety of reasons for labour market underperformance and unemployment. They also list in passing, as one reason among many, the cyclical nature of the unemployment problem. Insidiously, they then revert to treating each reason as somehow being an equal or statistical contributor to unemployment. In the absence of a determining historical moment encapsulating innateness of unemployment under capitalism, the orthodoxy moves into placing pretentious attention on educating the right people for the 'non-existent' right jobs. To begin with, accumulation is a social process. The roots of the unemployment ailment are related to a class and power structure that reproduce it. It is not diplomatic tact on the part of IFIs to obviate the social origins of unemployment, but complicity. This subordination of economics to the power of capital is the furthest any discipline can distance itself from the status of a science.⁵⁹

In view of the primacy of politics, the social process of accumulation and the organic interlocking of the global economy, apolitical policies aimed at rebuilding what has been disengaged ring hollow without prioritising the rights of labour. Even demand side policies such as more expansionary fiscal and monetary policies, building virtuous linkages between sectors, greater investment in research and development (R&D) to meet sustainability, increased public investment, public-private partnerships, and integration of regional policies into national development strategies are meaningless without tipping the structures of power and restraining the comprador bourgeoisie. The economic aspect of restraining the

⁵⁷ Arab Labour Organisation, Workshop on agricultural rebirth, Damascus, 23-25 November, 2010, p.57.

⁵⁸ Bush, R.C., (2007).

⁵⁹ Lange, O., (1953).

rentier/comprador bourgeoisie means to allow its expansion to proceed only in rationed money-form denominated in the national currency. The bourgeoisie should not be in a position to handle at will the transfer of national currency through open capital accounts. Foremost in these alternative policies are the settings of multiple exchange, interest rates and partial barter trade to resituate the rules of the game in favour of the distraught sectors of the Arab economy. When the powerful elites strip working populations of their security and sovereignty by the medium of the state, prices and the money form reinforce inequality.

Any form of monetary intermediation with the more developed centre aims at further social dislocation in the poorest areas of the Arab periphery by the degree to which concessions are made to middle income countries. In a system wrought with contradictions and one in which prices are brokered by power structures, sugar-coating financial relationships by making them appear as if they are some form of benevolent aid and dressing them in second-hand 'pro-poor' sentiments forfeits the fact that the money-form is the mediation of value and power relationships. In a socially interlocked process of accumulation that metabolises capital and labour, there is room for radical reform only insofar as the requirements of the rate of accumulation do not raise the standards of living in one corner at the expense of another.⁶⁰ Reform policy is cogent only when the interests of the poorest countries tally with the outcome of reform in any other middle income country. So far, middle income countries are being placated by the extent to which misery and war plagues the lowest echelons of the international division of labour (e.g. Yemen, Somalia, and Sudan).⁶¹ Without mention of the centrality of class antagonisms, these demand side mantras may be obfuscating and strengthening the ideological hold of capital. They represent a way for the organised dimension of capital to manage accumulation by raising the pauperisation inflicted upon the most distraught sections of Arab labour. In view of the social basis of value creation and the distorted image represented in the money-form, policy acquires pertinence as it aligns itself with the standpoint of the forcibly under-valorised layers of Arab world labour.

Labour in the Arab world has been made persistently redundant by a combination of imperialist assaults and labour saving technology. Ready-made policies for employment creation such as labour intensive economic growth is necessary for remedying the situation; however, it is not sufficient. Notwithstanding the small size to which the productive Arab economy has been reduced and supposing we do get labour intensive growth, the already dwarfed real economy relative to the huge numbers of unemployed would result in sustained low productivity growth. Low wage growth will follow low productivity growth over long periods. The impact on demand that would be needed to kick start the economy will be minor. The issue of unemployment cannot be solved by standard recipes. In an Arab context of war and oil, equity must precede efficiency until the valorisation of socially valuable work begins to pay off. The socialisation of labour entails socialising accumulation by more egalitarian distributional means. Two points reflexively arise from the foregoing: first, there has to be a reinvention of a price system re-valourising labour and capitalising the economy with state generated capital (subordinately, price guarantees and subsidies being part of that), and; secondly, through socialising property and wealth which ensures that appropriation aligns the social with the private interest (land reforms and regulation of major financial institutions). At the national level, retaining the social product for recirculation within national borders involves multi-layered price engineering which ensures that exchange and interest rates policies lock in resources. At a subordinate sectoral level, guarantees for agricultural output, financing for

⁶⁰ Mészáros, (1994).

⁶¹ Ibid.

industry and agriculture at concessional rates, and integrating agriculture via increased investment into the economy represent leading reform measures.

For full employment policies to succeed, a relative delinking of Arab economies through price manipulation and partial protectionism is required. In the interim period, the state has to act as Employer of Last Resort, and introduce public and social work programmes (PWP) to provide low-paid temporary jobs for relatively disadvantaged groups of workers, as well as, other paying jobs in socially relevant areas for the more skilled. The issue remains that whatever active labour market programmes are introduced, they will depend on the macro environment; otherwise they will be short lived and doomed to failure. As it has been mentioned, economic development depends on autonomy over policy, resource recirculation within the economy, and adequate interface between policies and outcomes. These, in turn, depend on weakening comprador links to imperialism. Thus, in order to assess which employment policy options are available to the Arab countries, one needs a broader understanding of the social structure and the institutional framework in which the task of development is going to be carried out. Development depends on the nature of the agent of development and institutional predisposition toward capacity building. Principally, the degree of sovereignty over resources and the institutional context of the Arab world will determine whether one will be able to deal with the various developmental challenges, such as the contradiction between a restrictive monetary policy and a vigorous fiscal stimulus plan, the disjunction between regional savings and regional investments, the absence of automatic stabilizers, and the rentier character of most Arab states, which limit their capacity to intervene in a productive, efficient manner and respond to the needs of the working segment of the population. Focusing on the social-institutional level of the responses to the challenge of development is a way to reintroduce historical, social, and political elements in the analysis and to qualify over-generalisations that might be counterproductive in this particular context.

For macro generating employment policies to work jointly and interdependently and become developmental tools, Arab countries would have to tackle the 'structural' impasse underlying the policy framework, namely the translation of idle financial resources into real resources, the introduction of a social criterion for employment and the linkage of development to working class security *qua* sovereignty issues. Without a sovereignty whose substance rests on the mediated security of the working population, there will be no autonomy over policy. In none of the Arab countries is there a working population secure from want or a national sovereignty determined by the security of the working population. Steep national income differences and deepening labour force differentiation fuel uncertainty making the present more valuable than the future. Under these conditions, talking of the interface between employment policy and outcomes is futile. The starting point for discussion lies in analysing the imperialist predisposition to underdeveloping the Arab world and which systemically excludes people from the production process.

So far, the Arab spring is far from restructuring matters socially and it remains more of a political tremor than a social revolution. Currently, one group of countries is headed towards open civil war and the possible erasure of the state and another has innately conservative parties rising to power. Civil war will feed the transfer of value through militarism and encroachment. Wars cheapen third world assets and the foremost input into accumulation, that is, human life. Where elsewhere Islamic political parties assumed power through the ballot box, these countries will most likely remain trapped in the policies of the past, further under-developing the social formations. The corruption that any revolutionary process is supposed to reverse has to do with stemming the transfer of value and under-priced

resources to the more advanced countries. So long as the political parties voted into power sanctify property rights irrespective of the degree of mal-distribution, ordain a repressive labour process, and place obligations before rights, it will not be possible for a *volte face* of policy to occur. In view of the fact that the majority of the working population has been dispossessed and that Arab economies cannot conceivably reemploy the massive redundant population under the received efficiency criterion of productivity expansion, it is time to introduce an equity based social benchmark for employment creation.

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Author contact: meiak@nus.edu.sg

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A Critique of the Marginal Productivity Theory of the Price of Capital

Fred Moseley¹ [Mount Holyoke College, USA]

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The most important question in a theory of capitalism is the question of *profit* – where does profit come from, and what determines its magnitude? Profit is the main motive and overriding purpose of capitalist production, and the main determinant of the dynamics of capital accumulation. When profits are high, then the rate of capital accumulation will be strong, unemployment will fall, and the overall condition of the economy will be good (a period of prosperity). On the other hand, when profits are low or insufficient, then the rate of capital accumulation will be weak, unemployment will rise, and the overall condition of the economy will be bad (a period of crisis and recession or depression).

In addition, the question of the origin of profit is also important for an ideological or ethical reason. If the source of profit is the work and effort of capitalists, then the receipt of profit by capitalists is just and fair and equitable. On the other hand, if the source of profit is the labor of workers, then the receipt of profit by capitalists is exploitation, and capitalism is inherently an unjust and unfair economic system.

The question of profit is the main question in Marx's theory of capitalism. Most of Volume 1 of *Capital* is about this all-important question, and all the main conclusions of Marx's theory follow from the basic theory of profit. (The question of profit was also emphasized by the classical economists, especially Ricardo.) In contrast, the question of profit is given much less attention in neoclassical economics. As we shall see below, the return to capital is redefined in marginal productivity theory as the "price of capital". In marginal productivity theory, capital and the return to capital have always received much less attention than labor and wages, and in recent decades the former have been almost entirely ignored. Nonetheless, marginal productivity theory remains the most widely accepted theory of the return to capital by neoclassical economists and is widely used in empirical work.

The marginal productivity theory of distribution was developed in the late 19th century by J.B. Clark (US) and Philip Wicksteed (UK) and others. The variables determined in the modern versions of this theory are the prices of the factors of production – the price of labor (wages), the *price of capital* (more on this key variable below), and the price of land (I will ignore land in what follows). According to this theory, the prices of the factors of production are determined by the supply and the demand for these factors.

The demand functions for labor and capital are derived in essentially the same way, from given production functions $[Q = f(K, L)]$ and the firm's profit-maximizing condition that the price of each factor should be equal to the marginal product of each factor.² The marginal product of each factor is the extra output that is produced if that factor is increased by one

¹ I wish to express thanks to my many students over the years who have helped me to develop this critique through our discussions. I am eager to hear from readers - please send me comments at fmoseley@mtholyoke.edu.

² More precisely, the firm's profit-maximizing condition is that the price of each factor should be equal to its marginal *revenue* product, which is its marginal physical product multiplied times the unit price of the output. This complication will be ignored in what follows, because the key issue is the existence or non-existence of the physical marginal products.

unit, and *all other factors remain constant*. Mathematically, the marginal product of each factor is the partial derivative of output with respect to that factor; e.g. the marginal product of capital is the partial derivative with respect to capital: $[MPK = \partial Q / \partial K]$.

The supply functions of labor and capital are derived in different ways. The supply of labor is derived from the utility function of individuals and the assumption that each individual chooses the number of hours she wishes to work on the basis of a “labor-leisure” trade-off in order to maximize her utility. This totally unrealistic assumption does not apply to capitalist economies, in which workers are wage-laborers, who generally cannot choose the number of hours they want to work, but instead whose hours of work are determined by the buyers of their labor-power.³ The supply of capital is even more problematic and has not yet received a definitive treatment, and will be discussed further below.

Marginal productivity theory comes to the harmonious conclusion that in equilibrium the price of each factor is equal to its marginal product, which is widely interpreted to mean that each factor of production is paid what it contributes to the production of the output. In what follows, I will focus attention on marginal productivity theory of capital and the price of capital.

1. “Aggregation problem”

A serious problem in the marginal productivity theory of capital is the so-called “*aggregation problem*”, i.e. the difficulty of adding together different kinds of capital goods to obtain a single quantity of capital in production functions, even for individual firms, and especially for aggregate production functions (Joan Robinson was the first to make this criticism in the 1950s). Capital is defined in terms of *physical goods*, as the quantity of capital goods (machines, buildings, equipment, etc.) utilized in production. But it is impossible to conceive of a common unit of measure in terms of which all the different kinds of capital goods could be reasonably added together.⁴

Therefore, marginal productivity theory does not provide a macroeconomic theory of the distribution of income between the classes of society, in contrast to Marx’s theory and Ricardo’s theory which do provide macro theories of the class distribution of income.

2. Demand for capital – marginal product is not a legitimate concept

There is an even more serious problem in the derivation of the demand for capital – the derivation of the demand for capital is based on the fundamental concept of the marginal productivity, and the marginal product of capital *is not a legitimate concept*. The existence of raw materials in the production process (and intermediate goods in general) contradicts the

³ There is also a fundamental logical contradiction between the L^s and L^d curves, because L^s is defined in units of *hours*, whereas L^d is defined in units of *workers* (the marginal product of labor is the extra output that results from adding one *worker* to a given capital). This contradiction makes the labor market analysis incoherent.

⁴ The absence of a satisfactory method of aggregating capital means that the “aggregate production function” in growth models in macroeconomics is not a valid theoretical concept, despite its widespread use. Two other areas of economics in which theoretically illegitimate aggregate production functions are still widely used in empirical applications are economic history and economic development.

Marx’s theory does not have an “aggregation problem” because Marx’s concept of capital is defined in terms of money, which can be easily aggregated.

concept of the marginal productivity of capital. Raw materials are inputs to production that cannot be held constant as output increases. In order for output in goods-producing industries to increase, the quantity of raw materials used to produce the output *must also be increased* (e.g. more cloth to produce another shirt, or more tires to produce another car). However, the concept of the marginal product of capital (i.e. the partial derivative of output with respect to capital) requires that the input of capital is increased by one unit, *all other inputs must be held constant*. But it is *not possible to hold the raw material inputs constant* and produce more output. Therefore, the concept of the marginal product of capital is self-contradictory when raw materials are included in the production function, as they should be (this fundamental problem also applies to the marginal product of labor and the derivation of the demand for labor).

Furthermore, if raw materials are included as a factor in production functions, as they should be, then the price of raw materials would presumably be determined in the same way as the other factors, by equating price of raw materials with the marginal product of raw materials. But what is the meaning of the “marginal product of raw materials”? The concept of the marginal product of raw materials requires that output could be increased by increasing raw materials by one unit and *holding all other inputs constant*. But how is it possible to increase output if both labor and capital are held constant – by magic? Therefore, the concept of the marginal product of raw materials is also invalid, and raw materials cannot be reasonably incorporated into marginal productivity theory.

One way that neoclassical economists have tried to deal with the problem of raw materials – especially in empirical work – has been *assume raw materials away*, i.e. to assume that the production functions are “*value added* production functions”, without raw materials (and intermediate goods in general) as inputs. However, this solution does not work, because a production function is a *physical* concept – which consists of physical quantities of inputs and outputs – and value added is a *nominal* concept – the difference between the price of the output and the prices of intermediate goods. One can subtract the price of intermediate goods from the price of the output to calculate value added, because both prices are nominal terms which are commensurable. However, one cannot subtract the physical quantity of intermediate goods from the physical quantity of output, because intermediate goods and the output produced are different kinds of physical goods which are incommensurable. There is no common unit of measure in terms of which this subtraction could be made. Therefore, a “value added production function” is an oxymoron.⁵

3. Supply of capital – no theory

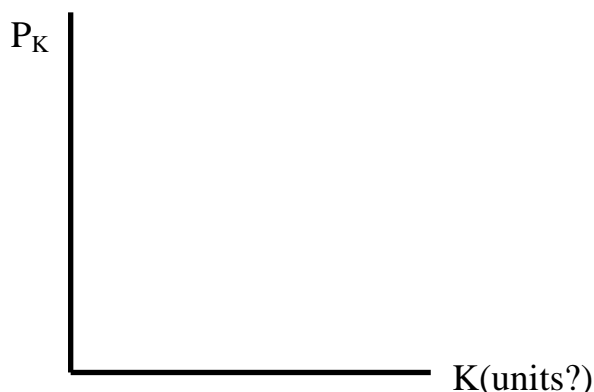
In addition to this insurmountable problem in the demand for capital and the marginal product of capital, there is also the additional problem that there is *no theory of the supply of capital* at all. It is generally assumed that capital goods are *rented* by producing firms, rather than purchased, and thus the supply of capital goods is assumed to be provided by capital goods

⁵ If raw materials are not included in production functions, then they would not be included in the cost functions in the theory of the firm (i.e. the theory of the supply of output). In this case, the profit-maximizing condition for firms (price = marginal cost) would be erroneous because marginal cost would not include the cost of raw materials. Thus if firms based their supply decision on marginal costs without raw materials, their decision would not maximize profits. They would produce a greater than profit-maximizing quantity of output, which would result in losses.

rental firms.⁶ Since it is assumed that capital goods are not produced in the current period, there is no production function and no cost function from which to derive the supply of capital goods by rental firms in the usual way.

So in addition to “no legitimate K^d curve”, there is no K^s curve at all, and thus no theory of the price of capital as determined by K^d and K^s .

The resulting graph of the capital market looks like this:



This empty graph is not a printer error. The theory is empty.

4. Price of capital – determined by costs

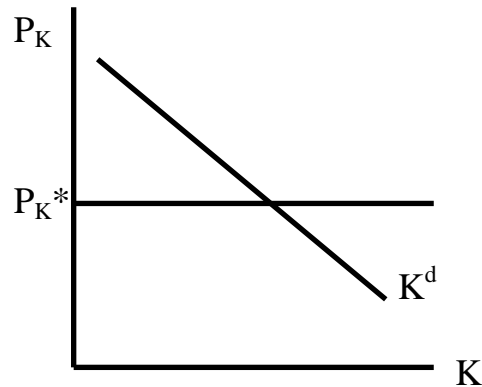
Instead, what is sometimes presented (if any theory of the price of capital is presented at all, which is rare) is a theory of the *long-run equilibrium price of capital*, as determined by the costs of the rental firms (because in the long-run, competition and the mobility of capital across industries will eliminate any “economic profit” or “economic loss” for the rental firms). The *costs of the rental firms* consists of two components: an explicit *depreciation* component (this period’s cost of the capital goods) and an implicit *interest* component, which is the “opportunity cost” of investing in these capital goods, rather than in alternative investments. The depreciation component is equal to the product of the price of the capital goods when purchased (P_G) and the depreciation rate of these capital goods (d), and the interest component (the “opportunity cost”) is equal to the product of the price of the capital goods when purchased and the prevailing rate of interest or average rate of profit in the economy (r). Algebraically:

$$P_K = dP_G + rP_G$$

Thus we can see that the price of capital is not an actual market price, but is instead a hypothetical price constructed with the assumption of an implicit “opportunity cost”. It is not clear why anyone would want to explain this unreal price, which one never observes in capitalist economies.

⁶ Gregory Mankiw, in his best-selling intermediate macro textbook *Macroeconomics*, assumes that firms rent capital goods from *households*. But, as one student said, poking fun at this ludicrous assumption, “my household doesn’t own any capital goods”. Mankiw’s presentation of the marginal productivity theory of capital will be examined in detail in a sequel to this paper.

We can also see that, even if we implausibly assume that the demand for capital could somehow be derived, *it would play no role* in the determination of the long-run equilibrium price of capital. The long-run equilibrium price of capital is determined solely by these costs. The graph of the capital market would look like this:



The K^d curve (even if it could be constructed) plays no role in the determination of the long-run equilibrium price of capital goods. The K^d curve would jointly determine (along with the P_K^* curve) the long-run equilibrium *quantity* of capital goods, but it would have no effect on the long-run equilibrium *price* of capital goods.

Thus the claim of marginal productivity theory that the price of capital is determined by the marginal product of capital is doubly fallacious: the marginal product of capital is an illegitimate concept, and even if it were legitimate, it would play no role in the determination of the price of capital.

5. Opportunity costs taken as given

But it gets even worse. In this theory of the long-run equilibrium price of capital, the “opportunity cost” of the rental firms (i.e. the prevailing rate of interest *times* the capital investment), which provides the “return to capital” of the rental firms, is *taken as given*, and not explained. The rate of interest is not determined by the marginal product of capital, nor by anything else in this theory. The rate of interest is taken as given as an exogenous implicit “cost”, like the explicit depreciation cost. Thus the “return to capital” – what Marx and the classical economists called “profit”, and defined as the excess of price over cost – is redefined by marginal productivity theory as a “cost”, and this “cost” is taken as given in the determination of the long-run equilibrium price of capital goods. Therefore, marginal productivity theory ultimately takes as given what is supposed to be explained – the return to capital. This theory is completely empty and provides no explanation whatsoever of the magnitude of this return to capital. The return to capital is a presupposition of the theory, not something that is explained by the theory.

I suppose that this is the reason why it is assumed in this theory that capital goods are rented by producing firms – because in that case, the producing firms would actually have to pay an rental cost to the rental firms. Then the rental cost would be a real cost, and it would seem reasonable to take this cost as given, similar to the actual depreciation cost. However, this unrealistic assumption does not really make the “opportunity cost” a real cost; and, most

importantly, this unrealistic assumption does not explain what determines the magnitude of this “opportunity cost”, which continues to be taken as given.⁷

It is argued by proponents of marginal productivity theory that this unrealistic assumption (that firms rent their capital goods) “makes no difference” in the conclusions of the theory, i.e. in the derivation of the long-run equilibrium price of capital. If the producing firms owned their own capital goods, *they would charge themselves the same implicit “opportunity cost”*, instead of actually paying this “opportunity cost” to rental firms. It is argued that the “opportunity cost” applies to the producing firms who own their own capital goods, as it does to the rental firms.

However, I argue that this more realistic assumption (that firms own their capital goods) also “makes no difference” in the *fundamental deficiency* of the theory – this theory still does not provide an explanation of the average return to capital, but instead takes this all-important variable as given, and uses this given to explain the “price of capital”, a variable which is not an actual price and is of no theoretical interest.

Conclusion

In conclusion, it is clear that the marginal productivity theory of capital and the price of capital is a horrible theory, that is logically contradictory and empty at the core. And yet it continues to be widely accepted by almost all mainstream economists, especially in empirical work. Why is that?

I think the reasons are pretty clear:

(1) Marginal productivity theory provides crucial ideological support for capitalism, in that it justifies the profit of capitalists, by arguing that profit is produced by the capital goods owned by capitalists. All is fair in capitalism. There is no exploitation of workers. In general, everyone receives an income that is equal to their contribution to production.

(2) The main alternative theory of profit is Marx’s theory, and the conclusions of Marx’s theory (exploitation of workers, fundamental conflicts between workers and capitalists, recurring depressions, etc.) are too subversive to be acceptable by the mainstream.

But these are *ideological* reasons, not scientific reasons. If the choice between Marx’s theory and marginal productivity theory were made strictly on the basis of the standard scientific criteria of logical consistency and empirical explanatory power, Marx’s theory would win *hands down*. Marx’s theory is a rigorous logical deduction from the labor theory of value, and it has very impressive explanatory power (conflicts over wages, the length of the working day, and the intensity of labor; inherent technological change, increasing inequality, recurring depressions, etc.) Marginal productivity theory by contrast is a contradictory theory with no explanatory power.

⁷ This unrealistic assumption also results in the following bizarre conclusion: if the producing firms actually paid the average return to capital to the rental firms as rent, then in the long-run the producing firms would make no profit. But why would capitalist firms continue to rent capital goods and produce output, if they make no profit in the long-run?

We should challenge and criticize marginal productivity theory on every occasion that presents itself, and we should teach and further develop Marx's theory, as a much better alternative theory of profit.

Author contact: fmoseley@mtholyoke.edu

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The political economy of bubbles

Edward Fullbrook¹ [United Kingdom]

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Abstract

Over the past thirty years in the US and the UK there have been large upward redistributions of income from the bottom 90 per cent to the top 1 per cent and especially to the top .1 per cent. These redistributions are specific to these economies rather than a general phenomenon of advanced economies. This paper argues that these redistributions have taken place because of fundamental changes, albeit informal, in the political structures of the US and the UK. Drawing on Citigroup reports and charting the interplay between Goldman Sachs and the Obama administration, the paper argues that these changes have been realised through organized, systematic, conceptualized and financially motivated subversions of the democratic process. Strategies for effecting and preserving these changes are examined. Some of the changes in law and government policy which were enabled by the new political structure and which in turn enabled the creation of the most recent financial bubble are listed. The paper concludes that it is in the interests of the new political order, secretly called "plutonomy" by its insiders, to have more financial bubbles in the future.

With courageous but inconsequential exceptions – Galbraith senior comes especially to mind – explicit political economy has for generations been essentially dormant, either the slave of historically eroded categories or a cover for ideological exercises. Recently Hudson, Keen, Baker, Wray, Kadri, Hillinger and others have struggled to awaken minds to political determinants which in our time often shape economies more profoundly than the idealized and purely economic ones traditionally portrayed in the classroom. In the spirit of their undertakings, briefly I am going to consider three hypotheses.

1. In recent decades there has been a significant change in the political structures of both the United States and the United Kingdom.
2. Recent occurrences of financial bubbles are causally related to these changes in the political structures of the United States and the United Kingdom.
3. Without a reversal of the changes in the political structures of the US and the UK, the cycle of financial bubbles and the crises that follow their collapse are likely to continue.

1. Upward redistributions

Over the past thirty years in both the US and the UK there have been large upward redistributions of income in which the beneficiaries have comprised a tiny per cent of the population and the losers the overwhelming majority, roughly ninety per cent. This pattern has not generally characterized other advanced economies. The following set of six graphs illustrates these facts.

¹ Thanks to Jamie Morgan for suggestions. The usual disclaimers pertain.

Exhibit 1: Average incomes including capital gains in United States 1950-2008

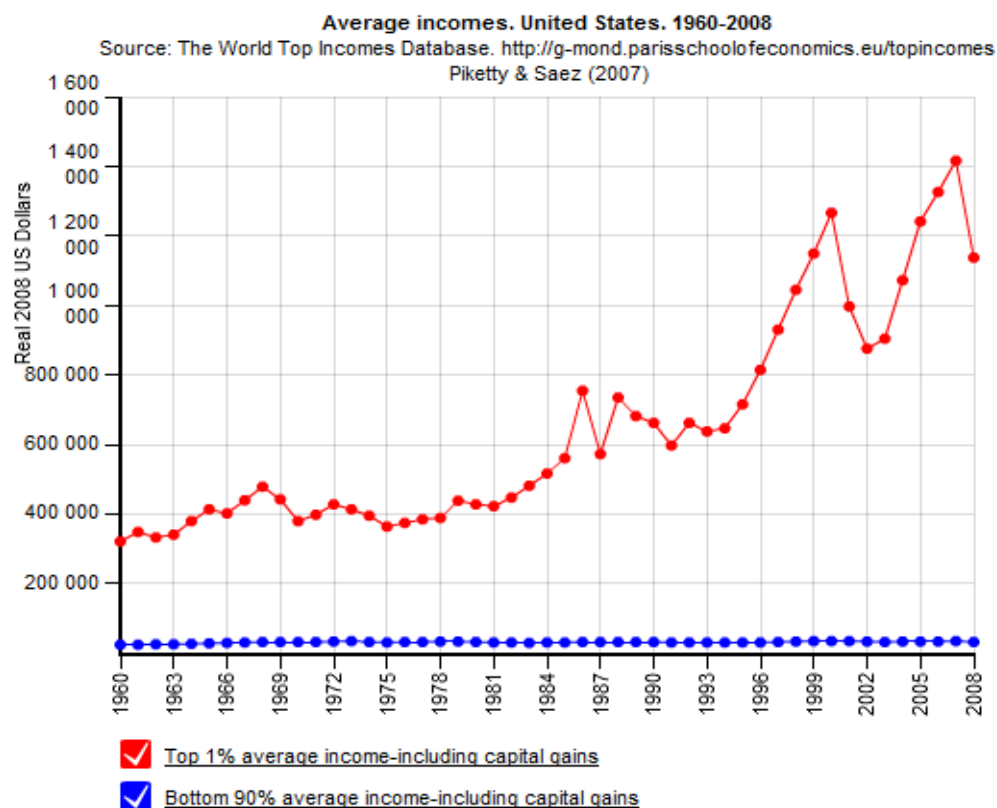


Exhibit 2: Average incomes excluding capital gains in United States 1950-2008

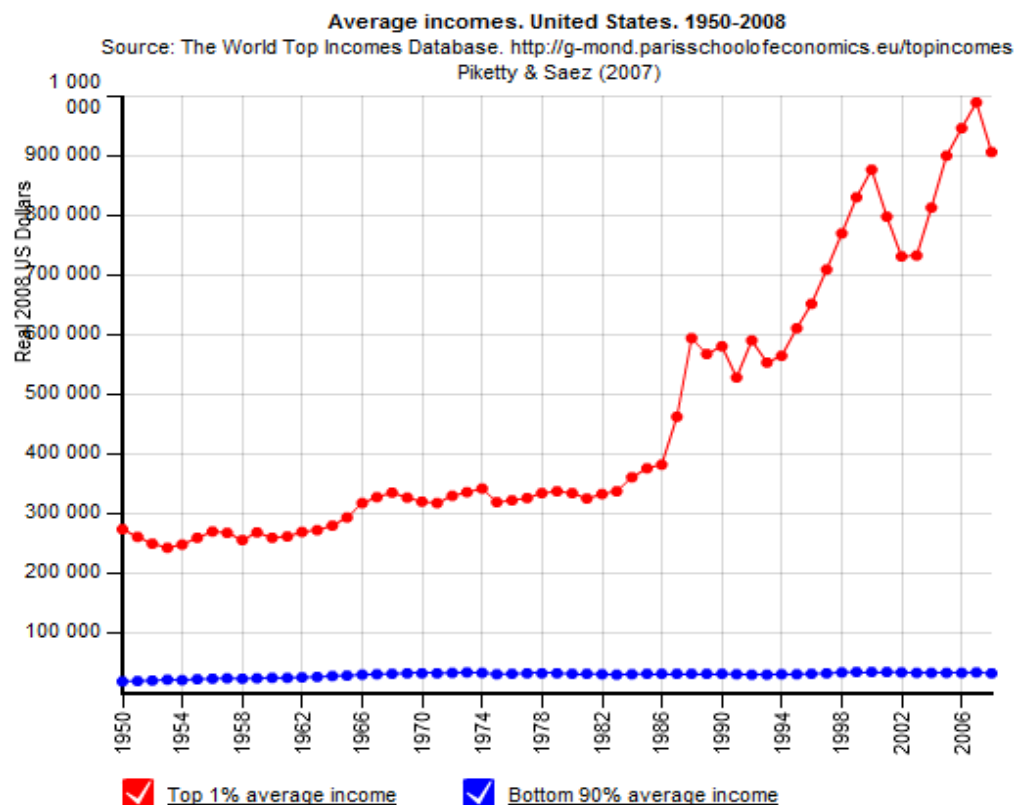


Exhibit 3: Top income shares in the United States 1960-2008

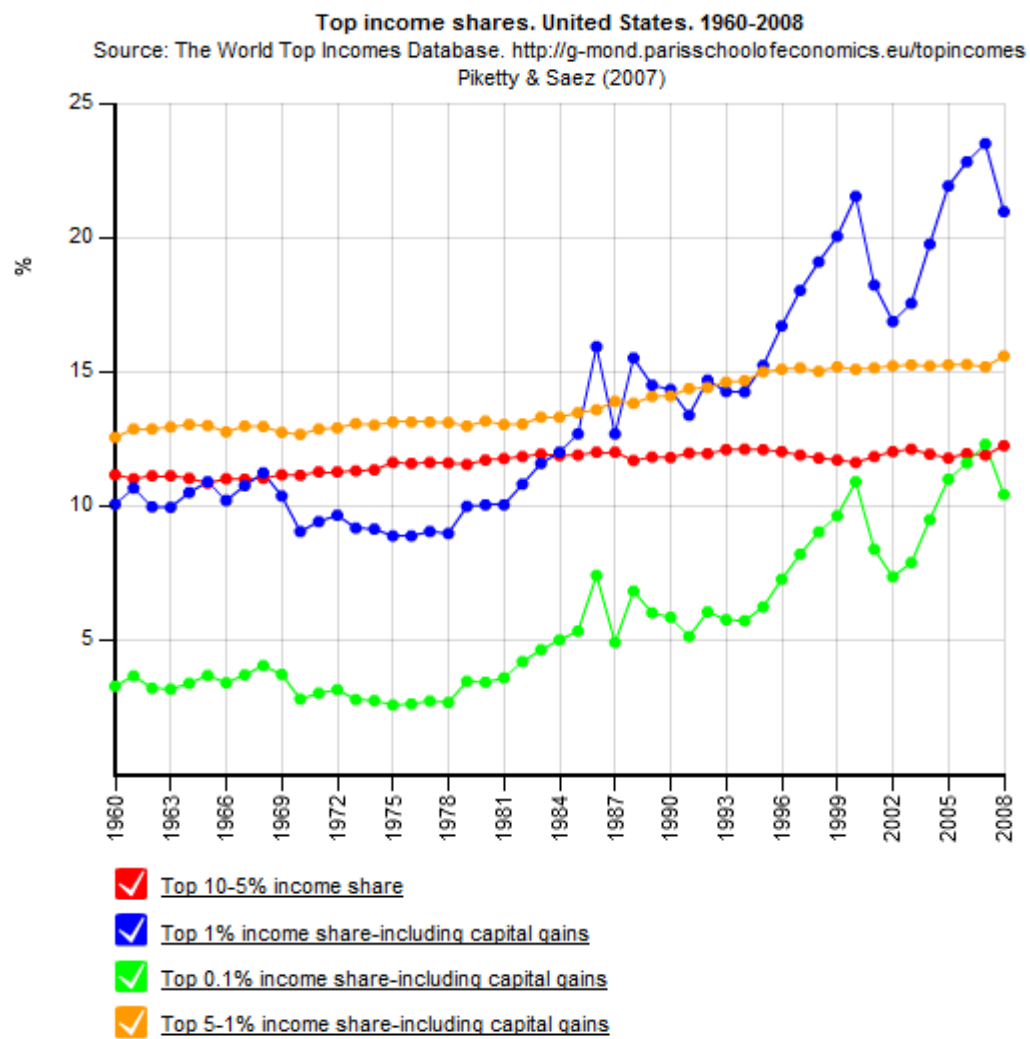


Exhibit 4: Top income shares in the United Kingdom 1960-2010

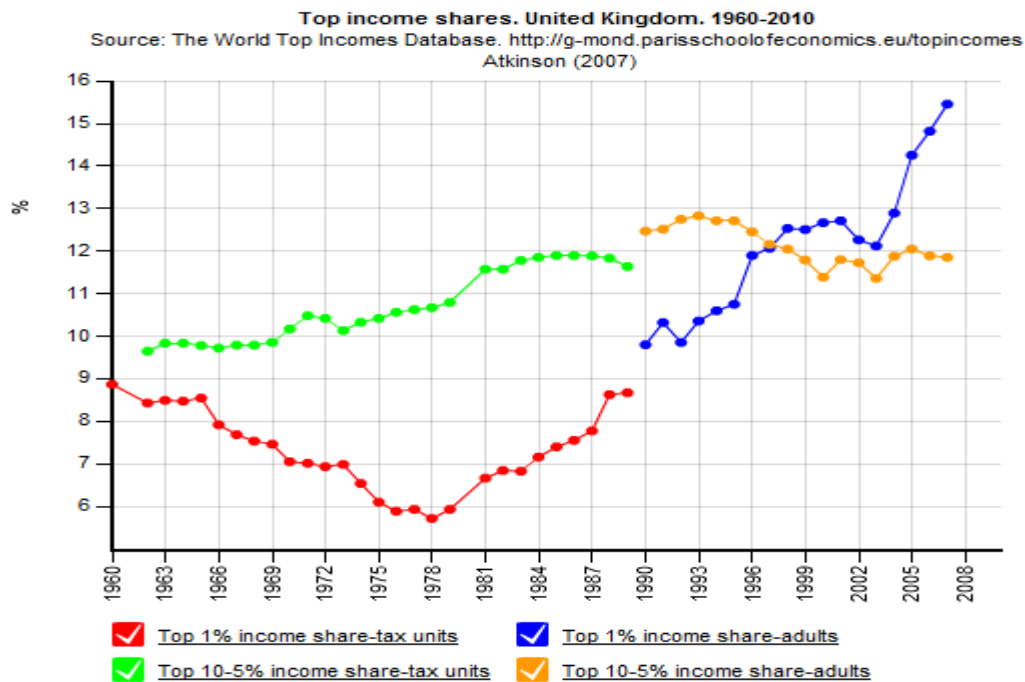


Exhibit 5: Average incomes in the United Kingdom 1960-2000

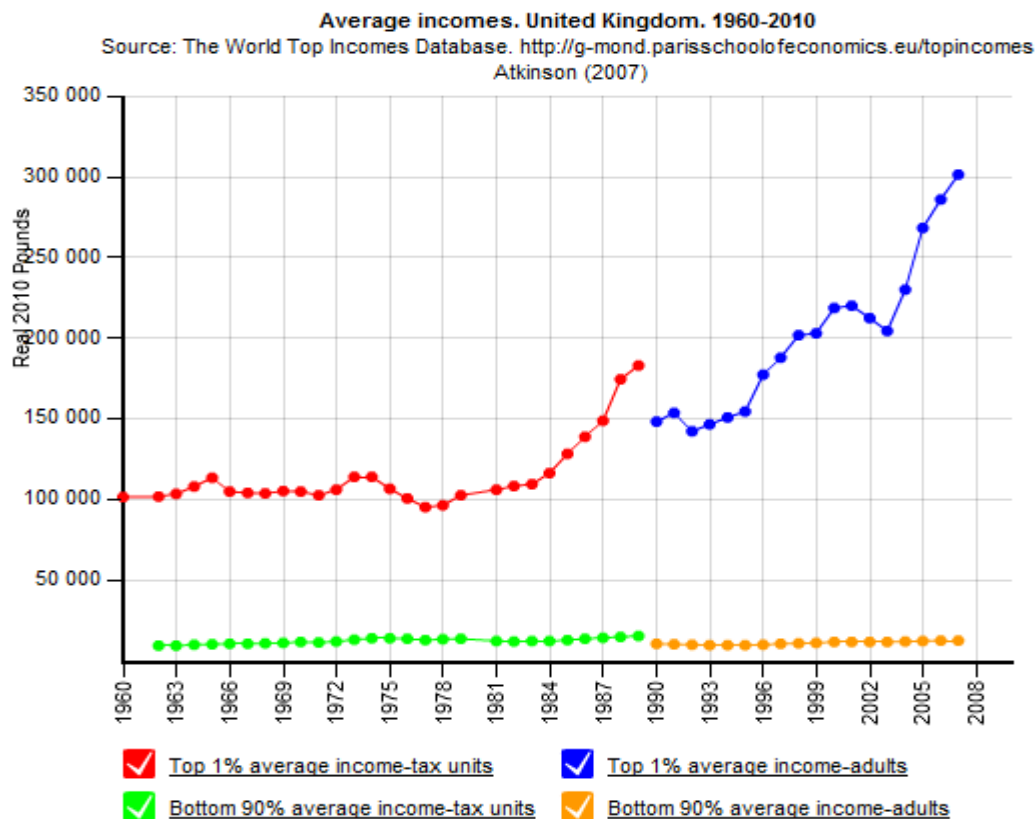
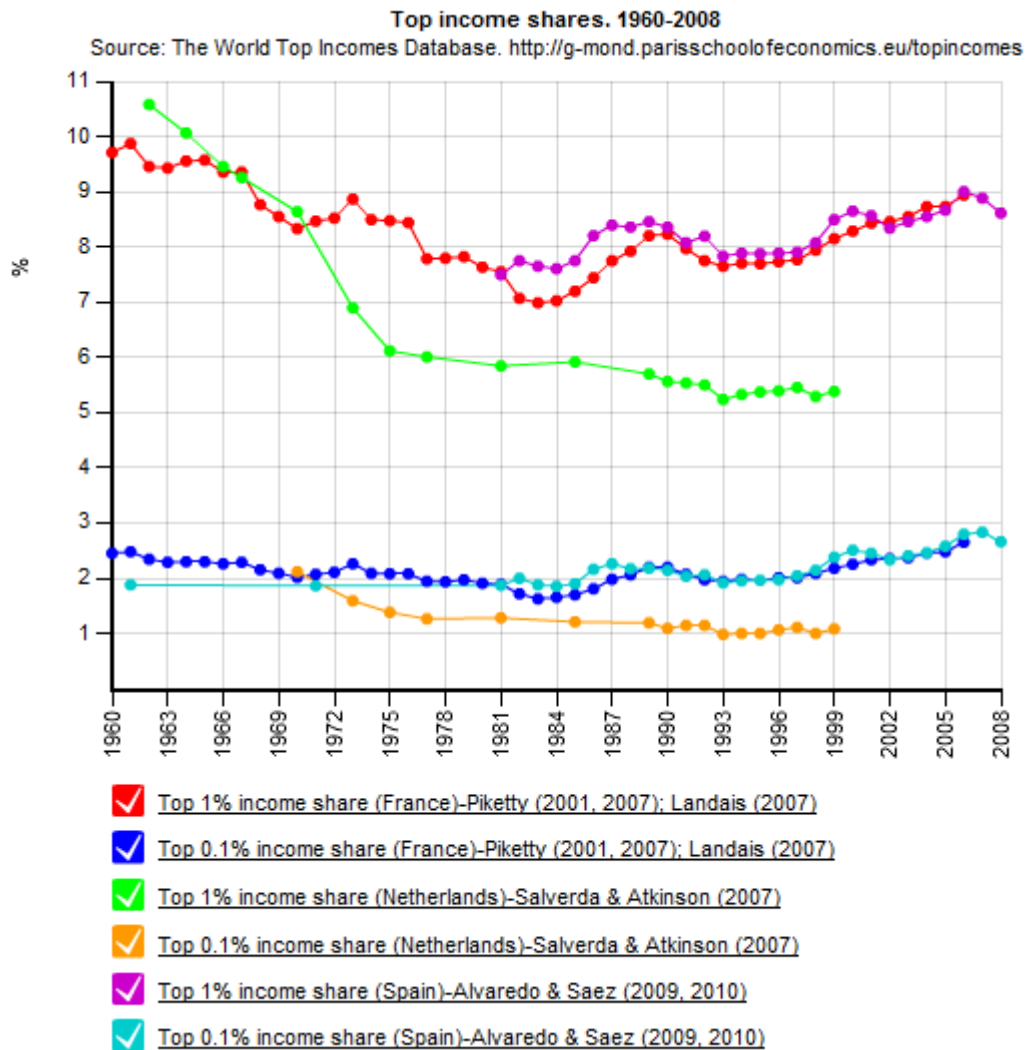


Exhibit 6: Top income shares in France, Spain and the Netherlands 1960-2006



From this series of six graphs two general points may be drawn.

- a. Because these income redistributions are country specific they must be due to government policies.
- b. The graphs show that in the US and the UK these redistributions of income have taken place regardless of which political party was in power.

2. The new political structure: Plutonomy

The data shown in Exhibits 1-6 imply that the US and the UK have in recent decades experienced significant changes in their political structures. This is not yet a common idea. In the period focused here, roughly from 1980 to the present, there have been no significant changes in the two countries' formal systems of government. But there is more to government than its formal structures. The same institution, for example an elected parliament or even individual political parties therein, may perform radically, systematically and intentionally differently from one historical period to the next, including with regard to the

welfare of the general population.² The recent histories of the US and the UK are cases in point.

Excepting matters of national security, in both the UK and the US, as in most countries, the material standard of living is almost universally accepted as the primary measure of its population's welfare. Even those political parties commonly identified with the interests of the wealthy, the Conservatives in the UK and the Republicans in the US, have won their seats by convincing the majority that their policies would best serve their material interests by generating larger GDP gains that would be shared between income groups including the majority of the population.

Furthermore, in the more distant past the governments of neither of these parties have been generally associated with upward redistributions of income. And of course even in recent decades, neither the Conservatives nor the Republicans have ever openly campaigned on the promise that they would **affect an upward redistribution of income**. Indeed, in the US and the UK no political party could win elections by openly campaigning on a platform of redistributing income upward to the richest one per cent of the population. But given that governments have affected these redistributions, it follows that the real agendas or platforms of the winning parties have been kept secret.

In the US and the UK either of their two major political parties could win elections **if**, unlike their opponents, **they campaigned in the usual way** but on a promise to stop or reverse the redistribution of income to the ultra-rich. Because only 1 per cent of the population benefits from these upward redistributions and the standard of living of at least 90 per cent suffer from them, it does not seem credible that the electorates would **knowingly** vote for their continuation. Furthermore the six graphs above illustrate the situation in a way that could be easily and quickly grasped by the average voter. A well-funded election campaign that focused on such graphs or the equivalent would have little difficulty getting the true significance of the election across to the majority of voters.

But currently the populations of the US and the UK appear to be nearly totally ignorant of the fact that for over thirty years their countries have been subject to the engineering of huge and extremely skewed upward redistributions of income. This central fact of contemporary political and economic existence for these countries is virtually never discussed in their general media. Nor will you find much about it in economics journals. But, as shown below, where you do find it discussed, and ever so greatly appreciated, is among the 1 per cent.

Together these points imply a change in the political structures of these countries. Why? Because if the major political parties have before them a straight-forward way of winning elections by appealing to the basic material interests of the overwhelming majority of the electorate and they repeatedly decline to do so even when it means defeat, then there must be a **non-democratic reason** that governs their decisions and their access to office. What is it?

² “. . . democracy in the United States has eroded; the institutions remain formally intact, but their substance has been subverted to serve the special interest over the general interest.” Claude Hillinger, *Economics*, Vol. 4, 2010, http://www.economics-ejournal.org/economics/journalarticles/2010-23/version_1/at_download/file

3. The Plutonomy Reports

Unlike the 99 per cent, the 1 per cent in the US and the UK are very much aware of both the income redistributions and the new political system that make them possible. They even have a name for it: **plutonomy**. It is the term used by some of the key backers of this political ideology, political movement and concept of government, whose primary players belong to the financial sector.

The history of plutonomy's conceptual development remains clouded in secrecy. But the fact that plutonomy as a real-world political phenomenon is conceptually driven, rather than merely an historical accident, emerged to public view in 2005 when the first of three Citigroup documents prepared for its wealthiest clients were leaked.

- **"Plutonomy: Buying Luxury, Explaining Global Imbalances"** Oct. 16, 2005 (35 pages)
- **"Revisiting Plutonomy: The Rich Getting Richer"** March 5, 2006 (18 pages)
- **"The Plutonomy Symposium — Rising Tides Lifting Yachts"** Sept. 29, 2006 (64 pages)

Citigroup has gone and continues to go to great lengths to suppress these important historical documents. Websites which post them receive threats of legal action if they are not immediately taken down, and likewise, apparently, the servers of those websites. Roughly a year and a half ago Citigroup lawyers had succeeded in removing them all. But now, using Google, it is easy to find all three documents on the Web, mostly on sites associated with The 99 Percent Movement.

Here are a few passages from the "Citigroup Plutonomy Memos" that outline, in the plutonomist's vernacular, this political ideology's key points and their view of the world. You will notice the strategic nature of these reports. It is this that makes it, from the plutonomist's viewpoint, imperative to keep the content of these historical documents from entering into mainstream discourse.

Report no. 1

Little of this note should tally with conventional thinking. Indeed, traditional thinking is likely to have issues with most of it.

The world is dividing into two blocs - the plutonomies, where economic growth is powered by and largely consumed by the wealthy few, and the rest. Plutonomies have occurred before in sixteenth century Spain, in seventeenth century Holland, the Gilded Age and the Roaring Twenties in the U.S.

We project that the plutonomies (the U.S., UK, and Canada) will likely see even more income inequality, disproportionately feeding off a further rise in the profit share in their economies, capitalist-friendly governments, more technology-driven productivity, and globalization.

In a plutonomy there is no such animal as "the U.S. consumer" or "the UK consumer", or indeed the "Russian consumer". There are rich consumers, few in number, but disproportionate in the gigantic slice of income and consumption they take. There are

the rest, the “non-rich”, the multitudinous many, but only accounting for surprisingly small bites of the national pie.

. . . we think the plutonomy is here, is going to get stronger, its membership swelling from globalized enclaves in the emerging world, . . .

WHERE ARE THE PLUTONOMIES?

The U.S., UK, and Canada are world leaders in plutonomy. . . . Countries and regions that are not plutonomies: Scandinavia, France, Germany, other continental Europe (except Italy), and Japan.

THE UNITED STATES PLUTONOMY

As Figure 1 shows the top 1% of households in the U.S., (about 1 million households) accounted for about 20% of overall U.S. income in 2000, slightly smaller than the share of income of the bottom 60% of households put together. That’s about 1 million households compared with 60 million households, both with similar slices of the income pie!

The rich in the U.S. went from coupon-clipping, dividend-receiving rentiers to a Managerial Aristocracy indulged by their shareholders.

WHY THE PLUTONOMY WILL GET STRONGER WHERE IT EXISTS, PERHAPS ATTRACT NEW COUNTRIES

We posit that the drivers of plutonomy in the U.S. (the UK and Canada) are likely to strengthen, entrenching and buttressing plutonomy where it exists. The six drivers of the current plutonomy: 1) an ongoing technology/biotechnology revolution, 2) capitalist friendly governments and tax regimes, 3) globalization that re-arranges global supply chains with mobile well-capitalized elites and immigrants, 4) greater financial complexity and innovation, 5) the rule of law, and 6) patent protection

At the heart of plutonomy, is income inequality. Societies that are willing to tolerate/endorse income inequality are willing to tolerate/endorse plutonomy.

So an examination of what might disrupt Plutonomy - or worse, reverse it - falls to societal analysis: will electorates continue to endorse it, or will they end it, and why.

Report no. 2

The second report begins by identifying **three** things that have enabled the creation of plutonomies in the US, UK, Canada and Australia: “**Asset booms, a rising profit share and favourable treatment by market-friendly governments**”. (emphasis added) Further on it considers:

What Could Go Wrong

. . . the rising wealth gap between the rich and poor will probably at some point lead to a political backlash. Whilst the rich are getting a greater share of the wealth, and the poor a lesser share, political enfranchisement remains as was – one person, one vote (in the plutonomies). At some point it is likely that labor will fight back against the rising profit share of the rich and there will be a political backlash against the rising

wealth of the rich. . . . We don't see this happening yet, though there are signs of rising political tensions. However we are keeping a close eye on developments.

Report no. 3

This is the longest of the three reports. Significantly it notes that:

The rise of this inequality is not universal. In a number of other countries – the non-plutonomies – income inequality has remained around the levels of the mid 1970s. Egalitarianism rules. (p.9)

It singles out Japan, France, Switzerland and the Netherlands as examples and dubs them “The Egalitarian Bunch”. Their deviance is then illustrated with a graph titled “The Income Share of the Top 1% Is Relatively Small Compared to Plutonomies”.

Further on, after reminding the readership that “plutonomy countries” are those with “economies powered by a relatively small number of rich people” and geared to “financial wealth creation”, and noting that the previous week a “Plutonomy Symposium” was held in London, “the risks to plutonomy” are, as in previous reports, considered.

Perhaps the most immediate challenge to Plutonomy comes from the political process. Ultimately, the rise in income and wealth inequality to some extent is an **economic disenfranchisement of the masses** to the benefit of the few. However in democracies this is rarely tolerated forever. One of the key forces helping plutonomists over the last 20 years has been the rise in the profit share – the flip side of the fall in the wage share in GDP. As plutonomists or capitalists tend to be long {on} the profit share, they have benefited from trends like globalization and the productivity revolution, disproportionately. However, labor has, relatively speaking, lost out. We see the biggest threat to plutonomy as coming from a rise in political demands to reduce income inequality, spread the wealth more evenly, and challenge forces such as globalization which have benefited profit and wealth growth. [emphasis added]

Nonetheless:

Our own view is that the rich are likely to keep getting even richer, and enjoy an even greater share of the wealth pie over the coming years.

These three plutonomy tracts, being windows both into the plutonomist's mind and to their strategies, contain many interesting points, but for democrats the most significant one is that **plutonomists see the subversion of democratic process as the ultimate key to their success**. If the “political enfranchisement remains” and is allowed to remain, then the “economic disenfranchisement of the masses” is only possible if they can be bamboozled into voting against their interests. It seems inevitable therefore, that plutonomists and their agents have gone to great lengths to suppress these documents.

4. Plutonomy's means to power

How does the financial industry come to control the political parties and individual politicians?

Cost of winning elections is the cost of running a plutonomy.

In the US it has long been the case that the ultra-rich, if so inclined, could buy themselves or a favourite son a seat in Congress. What has changed is that it has become so expensive to win a seat in the House or the Senate that it is no longer generally possible to do so without the backing of The One Percent. The Open Secrets Organization reports that in the 2010 elections the winners of seats in the House of Representatives spent on average \$1,439,997 and the winners for the Senate averaged \$9,782,702.³

This, however, is just the tip of the iceberg. Between 1998-2008, according to the Wall Street Watch Organization, the financial industry spent more than 5 billion dollars on lobbying and campaign contributions. This included

more than \$1.738 billion in federal elections from 1998-2008. Primarily reflecting the balance of power over the decade, about 55 percent went to Republicans and 45 percent to Democrats. Democrats took just more than half of the financial sector's 2008 election cycle contributions.

The industry spent even more — topping \$3.3 billion — on officially registered lobbyists during the same period. This total certainly underestimates by a considerable amount what the industry spent to influence policymaking. U.S. reporting rules require that lobby firms and individual lobbyists disclose how much they have been paid for lobbying activity, but lobbying activity is defined to include direct contacts with key government officials, or work in preparation for meeting with key government officials. Public relations efforts and various kinds of indirect lobbying are not covered by the reporting rules. <http://wallstreetwatch.org/reports/part2.pdf>

Plutonomy policy changes in the United States

Since 1980 a long series of legislative and executive changes have been made to United States government policy whose effect has been to redistribute income upwards towards the ultra-rich and to increase the concentration of wealth. These changes have taken place in approximately equal measure under Republican and Democratic administrations. Robert Weissman, in an [article](#)⁴ for Alternet, describes 12 plutonomy inspired deregulatory moves. His first 5 items are as follows:

1. The repeal of Glass-Steagall

The Financial Services Modernization Act of 1999 formally repealed the Glass-Steagall Act of 1933 and related rules, which prohibited banks from offering investment, commercial banking, and insurance services. In 1998, Citigroup and Travelers Group merged on the expectation that Glass-Steagall would be repealed. Then they set out, successfully, to make it so. The subsequent result was the infusion of the investment bank speculative culture into the world of commercial banking. The 1999 repeal of Glass-Steagall helped create the conditions in which banks invested monies from checking and savings accounts into creative financial instruments such

³ http://www.opensecrets.org/bigpicture/elec_stats.php?cycle=2010

⁴ http://www.alternet.org/story/130683/%245_billion_in_lobbying_for_12_corrupt_deals_caused_the_multi-trillion_dollar_financial_meltdown

as mortgage-backed securities and credit default swaps, investment gambles that led many of the banks to ruin and rocked the financial markets in 2008.

2. Off-the-books accounting for banks

Holding assets off the balance sheet generally allows companies to avoid disclosing “toxic” or money-losing assets to investors in order to make the company appear more valuable than it is. Accounting rules -- lobbied for by big banks -- permitted the accounting fictions that continue to obscure banks' actual condition.

3. CFTC blocked from regulating derivatives

Financial derivatives are unregulated. . . . During the Clinton administration, the Commodity Futures Trading Commission (CFTC) sought to exert regulatory control over financial derivatives, but the agency was quashed by opposition from Robert Rubin and Fed Chair Alan Greenspan.

4. Formal financial derivative deregulation: the Commodities Futures Modernization Act

The deregulation -- or non-regulation -- of financial derivatives was sealed in 2000, with the Commodities Futures Modernization Act. Its passage orchestrated by the industry-friendly Senator Phil Gramm, the Act prohibits the CFTC from regulating financial derivatives.

5. SEC removes capital limits on investment banks and the voluntary regulation regime

In 1975, the Securities and Exchange Commission (SEC) promulgated a rule requiring investment banks to maintain a debt to-net capital ratio of less than 15 to 1. In simpler terms, this limited the amount of borrowed money the investment banks could use. In 2004, however, the SEC succumbed to a push from the big investment banks -- led by Goldman Sachs, and its then-chair, Henry Paulson -- and authorized investment banks to develop net capital requirements based on their own risk assessment models. With this new freedom, investment banks pushed ratios to as high as 40 to 1.

President Obama is on record as favouring raising the top marginal income tax rate from its current 35% to 39.6%. The table below shows what that rate has been since the end of World War Two. The years in red were those in which a Democrat was president and those in blue a Republican. From 1953 to 1960 Dwight Eisenhower, a middle of the road Republican, was president. And for two of those years the Republican Party also controlled Congress. Yet Eisenhower chose to keep the top rate at 91%. Does that mean that Eisenhower and his Republican Congress were a million miles to the left of Obama? No, of course not. The left-right metaphor no longer pertains to the primary economic issues of the age in which we live. To use it in that context merely obfuscates. Rather than left versus right, the dividing line in today's political economies is The One Percent versus The 99 Percent. And in the US and the UK, regardless of which political party rules, it is The One Percent who are in control.

Exhibit 7: Top Marginal Income Tax Rate in the United States 1946 - 2011

Year Top Marginal Rate	Year Top Marginal Rate
1946 86.45%	1979 70.00%
1947 86.45%	1980 70.00%
1948 82.13%	1981 69.13%
1949 82.13%	1982 50.00%
1950 91.00%	1983 50.00%
1951 91.00%	1984 50.00%
1952 92.00%	1985 50.00%
1953 92.00%	1986 50.00%
1954 91.00%	1987 38.50%
1955 91.00%	1988 28.00%
1956 91.00%	1989 28.00%
1957 91.00%	1990 31.00%
1958 91.00%	1991 31.00%
1959 91.00%	1992 31.00%
1960 91.00%	1993 39.60%
1961 91.00%	1994 39.60%
1962 91.00%	1995 39.60%
1963 91.00%	1996 39.60%
1964 77.00%	1997 39.60%
1965 70.00%	1998 39.60%
1966 70.00%	1999 39.60%
1967 70.00%	2000 39.60%
1968 75.25%	2001 38.60%
1969 77.00%	2002 38.60%
1970 71.75%	2003 35.00%
1971 70.00%	2004 35.00%
1972 70.00%	2005 35.00%
1973 70.00%	2006 35.00%
1974 70.00%	2007 35.00%
1975 70.00%	2008 35.00%
1976 70.00%	2009 35.00%
1977 70.00%	2010 35.00%
1978 70.00%	2011 35.00%

Revolving doors

Movements of personnel between roles in government seen as crucial to the financial position of The One Percent and extravagantly paid roles (formal and otherwise) in One Percent institutions are maintained. Motivation for maintaining these movements includes an appreciation of the complex dynamics of their socio-cultural contexts. One such revolving door illustrates the case.

Exhibit 8: The revolving door between Goldman Sachs and the Obama Administration

	Name	Relation to Goldman Sachs and its offshoot the Hamilton Project	Position in Obama Administration
1	Obama, Barack	Goldman Sachs employees contributed \$994,795 to Obama's presidential bid.	President
2	Biden, Joe	Goldman has been a major campaign contributor to Biden.	Vice President
3	Altman, Roger	Hamilton Project member and was Assistant Secretary of the Treasury under "Mr. Goldman Sachs", Robert Rubin.	He is "one of those power brokers with all encompassing contacts within the Democratic Party".
4	Brainard, Lael	Associate and protégé of Robert Rubin.	United States Under Secretary of the Treasury for International Affairs
5	Buffett, Warren	He has invested billions in Goldman Sachs.	He is one of Obama's fundraisers and economic advisers.
6	Clinton, Hillary	In 2008 she received \$415,000 (inflation adjusted) from Goldman Sachs.	United States Secretary of State
7	Craig, Gregory	He left the White House to become Goldman Sachs' chief lawyer in defending against its SEC suit.	He was Obama's White House Counsel.
8	Donilon, Thomas	He was a lawyer at O'Melveny and Myers representing meltdown clients including Goldman Sachs.	Deputy National Security Adviser to Barack Obama
9	Dudley, Bill	He joined Goldman in 1986 and was partner and managing director until 2007.	Federal Reserve Bank of New York President since January 2009
10	Elmendorf, Douglas	He previously was the Director of the Hamilton Project.	He became <i>Obama's Director of the Congressional Budget Office</i> in January 2009.
11	Emanuel, Rahm	Received large contributions from Goldman Sachs as a Congressman and was on a \$3,000 a month retainer from Goldman while he worked as Bill Clinton's chief fund raiser.	Obama's Chief of Staff, the very first person Obama selected to be in his administration.
12	Farrell, Diana	She worked for two years at Goldman Sachs.	Deputy Director of the National Economic Council
13	Friedman, Stephen	He worked for much of his career with Goldman Sachs, holding numerous executive roles and still serves on the company board.	Chairman of Obama's Foreign Intelligence Advisory Board
14	Furman, Jason	Former Director of the Hamilton Project	He was director of economic policy for the Obama Presidential Campaign.
15	Fudge, Anne	Trustee of the Brookings Institution within which the Hamilton Project is embedded	Member of Obama's budget deficit reduction committee
16	Gallogly, Mark	He is member of the Hamilton Project's advisory council.	He is a member of President Barack Obama's President's Economic Recovery Advisory Board.
17	Geithner, Timothy	A protégé of both Henry M. Paulson Jr., a former chief executive of Goldman Sachs, and Robert Rubin, former co-chairman of Goldman Sachs.	He was Obama's Secretary of the Treasury.
18	Gensler, Gary	He was a Goldman Sachs partner.	Obama's Commodity Futures Trading Commission head.
19	Greenstone, Michael	Director of the Hamilton Project	He was an economic adviser position to Obama.
20	Hormats, Robert	27 years at Goldman Sachs, including as the Vice Chairman of Goldman's international arm.	The top economics official at Obama's State Department
21	Kashkari, Neel.	Former Vice President of Goldman Sachs	He worked for Obama on TARP oversight.
22	Kornbluh, Karen	She was Deputy Chief of Staff to Robert Rubin.	Obama's Ambassador to the OECD
23	Lew, Jacob	He sits on the Brookings-Rubin funded Hamilton Project Advisory	United States Deputy Secretary of State for Management and Resources

		Board.	
24	Orszag, Peter	He was the founding director of Goldman Sachs' Hamilton Project	Obama's Budget Director
25	Patterson, Mark	Former lobbyist for Goldman Sachs	verseer of TARP bailout funds, \$10 billion of which went to Goldman.
26	Rattner, Steve	A billionaire financier who sits on the Advisory Council of the Goldman funded Hamilton Project.	He oversaw the Obama Administration's rescues of General Motors and Chrysler,
27	Reischauer, Robert D.	He has close ties to Robert Rubin and sits on the Advisory Council of the Goldman funded Hamilton Project.	Appointed by Obama as one of the two public trustees of the Social Security and Medicare trust fund.
28	Rivlin, Alice	She is a member of the Hamilton Project board and of the board of directors of the New York Stock Exchange.	Appointed by Obama to his "deficit reduction commission".
29	Rubin, James	Son of Robert Rubin (see next entry).	Served as a headhunter for Obama
30	Rubin, Robert	26 years at Goldman Sachs and its former co-chairman. Also former Chairman of Citigroup. Along with Goldman Sachs, he funded the Hamilton Project.	Regarded by insiders as the de facto President of the United States.
31	Sperling, Gene	In 2008 he was paid \$887,727 by Goldman Sachs as a consultant.	Advisor to Obama's Treasury Secretary Tim Geithner on financial bailouts and other matters.
32	Storch, Adam	Former Vice President of Goldman Sachs	Obama appointed him Managing Executive of the Security and Exchange Commission's Division of Enforcement.
32	Summers, Larry	He landed a big-time job at Goldman Sachs after crashing as Harvard's President. In 2008 Goldman Sachs paid him \$135,000 for a single speech.	Obama's chief economic adviser and head of the National Economic Counsel.
Source: compiled from "A List of Goldman Sachs People in the Obama Government", by fflambeau, April 27, 2010, http://my.firedoglake.com/fflambeau/2010/04/27/a-list-of-goldman-sachs-people-in-the-obama-government-names-attached-to-the-giant-squids-tentacles/			

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Plutonomy's strategic policy

From the foregoing cursory look at the workings of plutonomy there emerges a basic outline of its strategic policy.

- The radically skewed upward redistributions of income are kept out of the news and public discussion.
- The *primary policies* of the major political parties, i.e., those effecting and preserving the income redistributions, are kept a secret from the electorate.
- The financial cost of winning elections is kept at a level which requires the financial and media support of the One Percent, meaning that, with rare exceptions, winning candidates campaign on a platform and in a manner that does not jeopardise the upward redistribution of income.
- Office holders know that in time large financial rewards are likely to accrue to them if they serve well plutonomy's interests.
- This decisive leverage is then used
 - to control government economic policy, and
 - to control appointments to economically key government positions.

There are many ways that power operates to produce a confluence of outcomes and a broad shape to policy in terms of what is deemed possible and what is preferred. These range from simple pressure, to the broader disciplining of policy venues, networks and actors that expresses itself in institutions and organizations. All are relevant to the way Plutonomy maintains power.

Plutonomy and financial bubbles

Plutonomy's power base is of course the financial rather than the industrial sector of the economy. The US and UK economies have been financialized, meaning, among other things, that the financial sector no longer sees its primary function as servicing the financial needs of the industrial sector, in particular, the raising of funds for economic investment. Instead of being seen as one of the means of economic production, financial assets have come to be seen as ends in themselves. Under financialization fortunes are sought not through the profits of economic production, but rather through financial assets themselves. This pursuit takes three primary and interconnected forms:

1. Creation of leverage or Ponzi schemes that enable huge expansion of one's financial holdings,
2. The securitizing of debts, often in a fraudulent manner.
3. Profiting from changes in the values of financial assets.

Because funds are increasingly channelled into the purchase of existing financial assets rather than into economic investment, growth and even maintenance of the real economy is curtailed and impaired, which then requires debt financed consumption.

Under plutonomy's rule the financial sector's profit-seeking activities become focused primarily on the buying, selling, packaging and repackaging of either existing financial assets or new ones attached to existing real assets. Success at this pursuit and the creation of financial bubbles are interlinked. Leverage is used both to increase asset holdings and to inflate their price. The rising prices attract investors, especially pension funds, from outside the plutonomy's inner core which inflates prices still more until eventually bubbles burst. But bubbles burst because some people sell off at the top, leaving themselves with proportionately huge profits. They then wait for the bubble to deflate before buying back in with, if they wish, a much larger stake than before. For these people (And where other than The One Percent are they likely to be found?) it is the bursting of bubbles as much as their creation that makes them richer still.

5. Conclusion

The three and a half years of economic history since the bursting of the last bubble testify to the entrenched, unchallenged and still increasing power of the plutonomists. Unlike after the Crash of 29, nearly all of the government funds injected into the economy – and they have been of an historically unprecedented magnitude for peacetime – have gone **not** into the real economy, but instead into re-inflating the market-value of financial assets, owned in the main by The One Percent. The result was entirely predictable. The pair of the charts for the United States below sum up the radically different fates of the two dimensions of the economy and of their two corresponding groups of citizens.

Exhibit 9: Civilian Employment-Population Ratio – United States 2000 – 2012

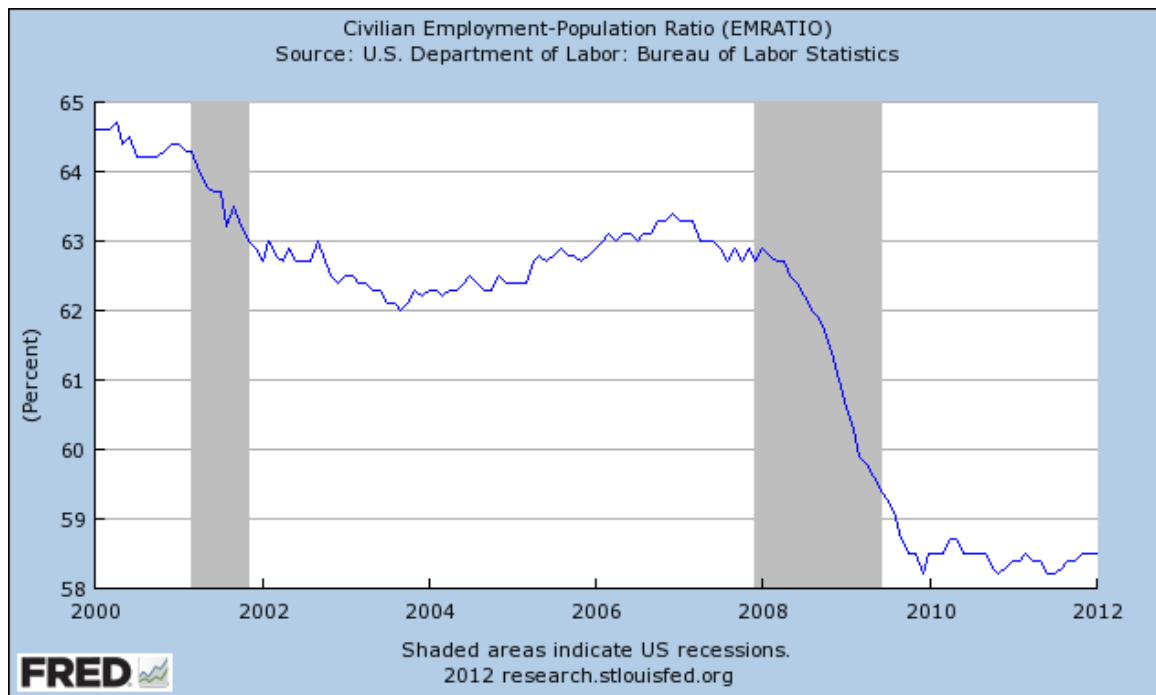


Exhibit 10 : Dow Jones 2000 – 2008



The political-economic structure that created the current global crisis, and also the DotCom bubble and crash that preceded it, is unlikely to change any time soon. True, there is in the

United States, and to a lesser extent in the UK, much public anger regarding the recent collapse and its consequences. But until very recently there was neither a constructive and realistic narrative nor an organizational vehicle through which to harness that public anger. Instead the Tea Party movement was cleverly funded by plutonomists as a means of channelling public anger in a way that strengthens the political base of plutonomy and promises to further accentuate the upward redistribution of income. Likewise the recent successful selling of Austerity.

More significant in the longer run is that any inhibitions that The One Percent may have had about creating bubbles should now be greatly reduced. The largest financial institutions, the ones most involved in creating bubbles, are now confident, whereas they were not a few years ago, that if they should fail to liquidate their holdings before the next bubble bursts, they will be bailed out at taxpayers' expense. Their executives also know that they will not be prosecuted for their frauds and that their billions of pounds of bonuses will continue to be paid.

For pro-democracy people the recent emergence of the Occupy or 99 Percent Movement is both a positive step and the sort of thing that the Citigroup reports cite as the ultimate danger to continued plutonomy rule. But that movement still exists only at the margins. It is much too early to tell if it will grow to have, directly or indirectly, an influence at the polls, nor even through what channels such influence might be realized. Furthermore there is not yet at the public level a narrative that identifies and focuses on the relevant political-economic structures, and explains how their policies have created and will in the future create financial bubbles which end with global crises and further upward redistributions of income. In short, regarding the political economy of today's world, in key countries ignorance prevails.

The changes in the political economies of the US and the UK described in this paper imply changes in the nature of the economies themselves. These changes will be considered in the first of two sequels to this paper, "Financialism versus Capitalism".

Author contact: edward.fullbrook@btinternet.com

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<http://rwer.wordpress.com/2012/03/12/rwer-issue-59>

Austerity for the piigs: easing the pain while increasing competitiveness

Claude Hillinger [University of Munich, Germany]

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You may post comments on this paper at
<http://rwer.wordpress.com/2012/03/12/rwer-issue-59/>

The flood of commentary on the financial/economic crisis in journals, media and blogs undoubtedly contains much useful information and thinking. However, really novel and incisive ideas seem to be rare. In the following I present what I believe to be such an idea and I attempted to do this without materially adding to the flood!

As a result of popular opposition to the austerity measures imposed by the international community on the PIIGS states there were changes of government in all of them, either through resignation or electoral defeat. All of the new governments are committed to carrying out the expenditure reductions and associated reforms that were demanded, but their chances of success, though different from country to country, are generally in doubt. The austerity measures further depress the economies, thereby reducing government revenue and thus at least partially negating the intended effects. The populations, experiencing the measures as excessive and unjust engage in extensive protest activities including mass demonstrations and strikes. These contribute even further to the depression and the erosion of government revenue.

Economic stress is an ideal breeding ground for right wing populist parties. Such parties have appeared throughout Europe and they have already scored considerable successes. If the reform governments fail, these parties will be the likely successors--a sad end to the project of European integration.

I believe that the austerity programs as they are currently conceived have a defective design and that elimination of this defect would both ease the pain of the populations and at the same time improve the competitiveness of these economies. The central feature of all austerity programs is to reduce government expenditures by reducing the number of government employees, by reducing the salaries of those that are retained and by reducing transfer payments for pensions and various social services. The people whose incomes are thus reduced still face the same fixed costs as before. Their rents, their utilities, payments on their mortgages and on other contracts all continue as before. Nor is competitiveness improved. The government is cutting its own costs, but the costs of private businesses remain essentially unchanged.

A better policy would be for the government to legislate a cut not only in the contracts to which it is a party, but in all private domestic contracts as well. It may be questioned if such a massive intervention in private contracts is even legally possible. But the governments are already breaking many implicit and explicit contracts that they entered in the past. It can also be argued that the foundation of income expectations, on the basis of which private contracts were entered, has broken away. Many contracts will be broken anyway, simply because of inability to pay.

A principal problem of the PIIGS, as many economists have pointed out, is that lacking an own currency they cannot devalue externally. A domestic deflation left to market forces generally takes a very long time and requires a depressed economy. My proposal would cause the domestic deflation that is required to restore international competitiveness to proceed more quickly. It would also spread the pain more evenly through the society. The

exclusive concentration on the public sector is a faulty design that should be corrected; otherwise it may cause the entire project to fail.

Should such a policy ever be seriously considered, many details of the implementation would have to be resolved, but I don't believe that these would be more difficult than with any other policy implementation.

Author contact: hillinger@lmu.de

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