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## Issue no. 70

19 February 2015

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# The euro area's secular stagnation and what can be done about it. A post-Keynesian perspective

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## Abstract

There is no shortage of speculations about the factors responsible for secular stagnation. Such a stagnation is believed to be about to engulf the developed parts of the global economy – or has done so already. The view, commonly shared by the mainstream, is that the current stagnation set in around 2008, as the global financial crisis released forces that have since been preventing the resumption of fast growth allegedly characterising the earlier decades.<sup>1</sup> The mainstream opinions do differ on many counts. But they seem to be sharing the belief that the 'monetary factors' (e.g. pertaining to the 'zero lower band') are at least co-responsible for the present (post-2008) predicament. Moreover, they all tend to emphasise the need for 'difficult but uncontroversial reforms' (i.e. further 'structural reforms of the supply side') as the primary way of ending the stagnation.

This Note, focusing on longer-term trends characterising the euro area, first argues that growth has actually been slowing down for many decades now. The current stagnation represents the newest stage in the longer-term – truly secular – development and not necessarily an outcome of largely accidental bad luck (or an 'exogenous shock' hitting the otherwise smoothly functioning world economy). The second objective of the Note is to provide a possibly simple explanation of the secular – long-term – growth slowdown (including its post-2008 phase). The explanation can be termed post-Keynesian. It points to the long-term weakening of growth of aggregate (domestic) demand. This has been a fairly predictable response to the progressing reorientation of economic policies which started, approximately, in the first half of the 1970s. Progressing policy-directed liberalisation (internal as well as external) was just one aspect of the new post-1975 paradigm. After the end of the full-employment era the wage share has been following a downward trend – not entirely a market-driven development. Policy has been actively supporting a 'secular trend for wage moderation'. Under such conditions growth of private consumption has been slowing down secularly too – at the same time becoming more volatile. Rising profit (non-wage) shares (and also profitability) have failed to transform into higher domestic investment. The latter has been trending downwards very strongly while at the same time exhibiting violent ups and downs. Simultaneously there was also a creeping change in the orientation of fiscal policy – a gradual slowdown of growth of public consumption, a growing burden of indirect taxation and lessening of the burden of corporate taxation. All in all, there is no great mystery about the reasons for continuing secular euro area economic stagnation.

**JEL codes** E12, F02, F62, E65, E66

**Keywords** secular stagnation, integration, euro area, income distribution, wage-led growth, fiscal policy

## Introduction

The following Sections present – and try to make sense of – the data reflecting the developments in essential indicators for the euro area (comprising the original 12 euro area countries). Of course, the euro area is not a homogenous national economy. It is not even a federal state consisting of structurally differing provinces (as is e.g. Germany). Nonetheless,

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<sup>1</sup> See e.g. the recent review of popular views by Canuto et al. (2014), or a more extensive presentation of the opinions held by the prominent representatives of 'economic science', collected in a recent VOX volume edited by Teulings and Baldwin (2014).

Member States are tightly integrated through trade, finances and production networks. Moreover, there is a common monetary policy for the whole area and common sets of fiscal and other regulatory rules that individual Member States are trying to obey. While it would be wrong to claim that in economic terms the area is becoming 'a larger Germany', German internal policies have been increasingly shaping the developments throughout the area – and beyond.<sup>2</sup>

### **Secular growth slowdown in the euro area: empirical evidence**

First, let us make sure that there has been a long-term tendency for growth slowdown. Indeed, as shown below (Fig. 1) the growth rate of the euro area's per capita GDP has been trending downwards since the early 1970s. The average yearly growth rates for the consecutive decades have been diminishing: from 4.46% for 1961-70 down to 0.65% for 2001-10. Observe that growth has also become more volatile: the coefficient of variation (standard deviation of average growth rates over the average) for the first decade was 0.215; for the last (2001-2010) decade 3.27.

Of course one may bear in mind that the short-lived recessions in 1975 and 1981 could have been the aftermaths of the oil embargoes (1974, 1979) and the associated shortages severely affecting the 'supply side'. Beyond such shortages materially affecting production, the oil shocks had negative consequences for inflation, income distribution and – especially – private investment. (Actions by the OPEC cartel produced fundamental *uncertainty*: would the energy prices/supplies be allowed to return to 'normal' levels, or would they rather stay at 'abnormal' levels more or less indefinitely? Under such uncertainty the best approach to taking (irreversible) investment decisions (involving technology choice: energy-saving, or traditional) could be of a *wait-and-see* sort).

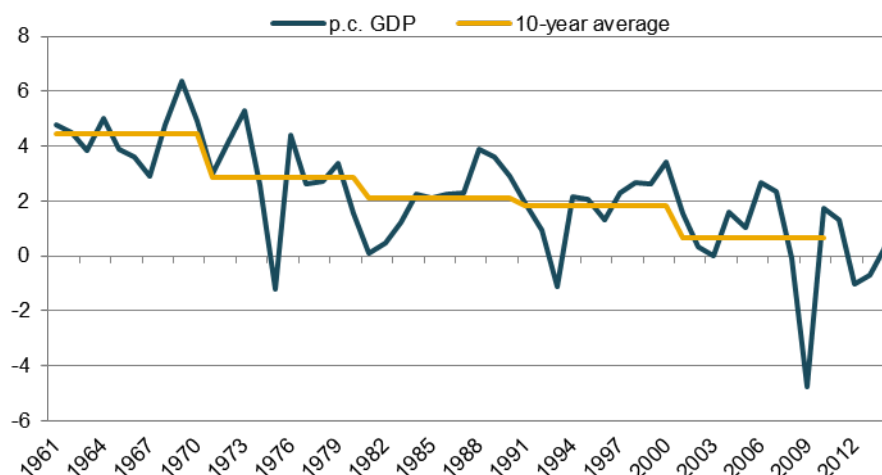
The deep slumps in 1993 and 2009 cannot yet be viewed as 'exogenous shocks'. These slumps were 'endogenous'. They were the consequences of the economic 'architecture' consciously designed by the European economic elites. In 1993 the recession was provoked by the crash of the EU Exchange Rate Mechanism, in 2009 it was the near-collapse of the EU's financial sector operating by the rules enacted (or at least tolerated) by the EU policy-makers. It may be added that the double-dip recession of 2012 was provoked by the 'fiscal consolidation' hysteria gripping the euro area decision-makers. Finally, it is worth observing that the introduction of the euro (since 1998) and the full internal trade liberalisation (Single European Market, since 1993) did nothing to accelerate GDP growth.<sup>3</sup>

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<sup>2</sup> Whether or not the euro area (in its present form) survives depends on German *internal* policy – and not merely on its willingness to bail out over-indebted fellow Member States. According to many authors (including Laski and Podkaminer, 2011) the German internal policy – which has been co-responsible for the plight of the over-indebted euro area countries – is quite likely to precipitate the eventual demise of the common European currency.

<sup>3</sup> At present there is some hope that the Transatlantic Free Trade Agreement could add vigour to EU (and North America's) growth. This is likely to be yet another mirage (Podkaminer, 2014).

**Figure 1.** Euro area (12 original members) – per capita GDP growth rate (%), 1960-2013



Source: Own calculations based on AMECO database (item RVGDP)<sup>4</sup>

### Secular deceleration of consumption growth: evidence of and the reasons behind

The GDP growth deceleration has been associated with a slowdown of growth of private consumption (Fig. 2).

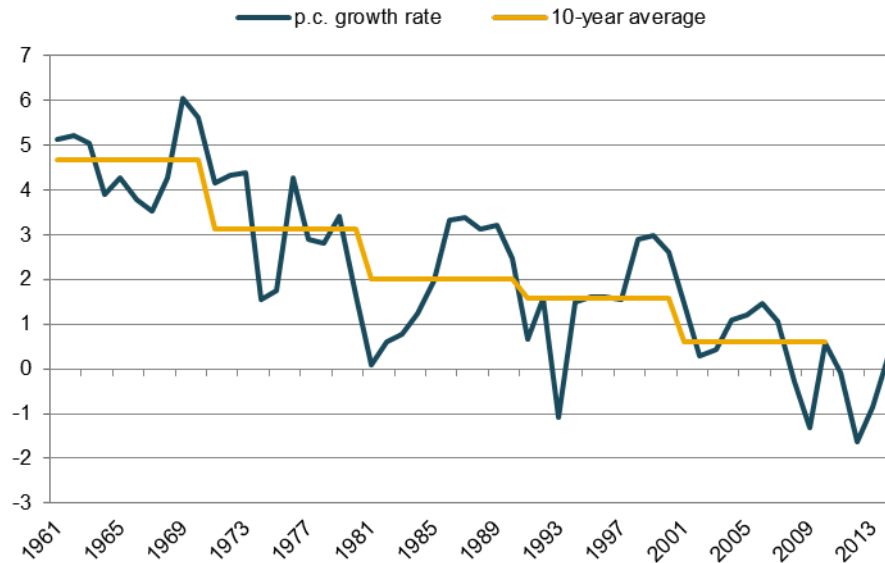
Of course, there is no entirely safe way to establish 'causality' between GDP and private consumption developments. However, a conservative Vector Auto Regression (VAR) analysis working with the two original (but de-trended) series from Figs. 1-2 strongly suggests that the growth rate of private consumption *leads* the growth rate of GDP.<sup>5</sup> In other words, the slowdown of growth of household consumption demand tends to be *followed* by a slowdown of GDP growth (rather than the other way round). Dynamic consumption is thus essential for the overall output dynamism.

Why has growth in private consumption been decelerating? The developments in interest rates and in monetary policies giving priority (since about the mid-1970s) to combating high inflations (initiated by the oil price shocks) may have played a role. Short-term interest rates were generally quite high in the euro area from the late 1970s through approximately 2005 (but especially throughout the 1980s). But interest rates are unlikely to have had much of a negative effect prior to the late 1970s – and certainly not after 2005.

<sup>4</sup> The data underlying Figs. 1-15 were drawn (between 15<sup>th</sup> and 19<sup>th</sup> Jan. 2015) from AMECO database: [http://ec.europa.eu/economy\\_finance/ameco/user/serie/SelectSerie.cfm](http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm)

<sup>5</sup> The VAR-derived 'impulse' response of the GDP growth rate to 'innovations' in the consumption growth rate is strong, long-lasting – and positive. The response of the consumption growth rate to 'innovations' in the GDP growth rate is weak and short-lived – on *average* about zero already by the second year. (The bivariate VAR in question relates growth rates of consumption and output to their lagged values.)

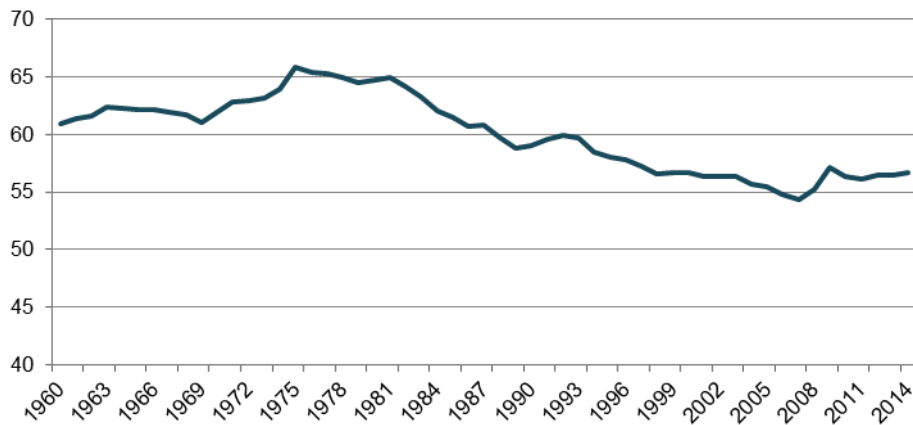
**Figure 2.** Euro area – growth rate of per capita private consumption (%)



Source: Own calculations based on AMECO database (item OCPH)

The deceleration of growth of private consumption seems to have had more to do with the *new* tendency which set in around 1975: the change in the functional distribution of income. Since 1975 the GDP wage share has been on a downward trend (Fig. 3). Years 1974-75 also mark the end to the post-war full-employment era (Fig. 4).

**Figure 3.** Euro area (12 original members) – adjusted GDP wage share

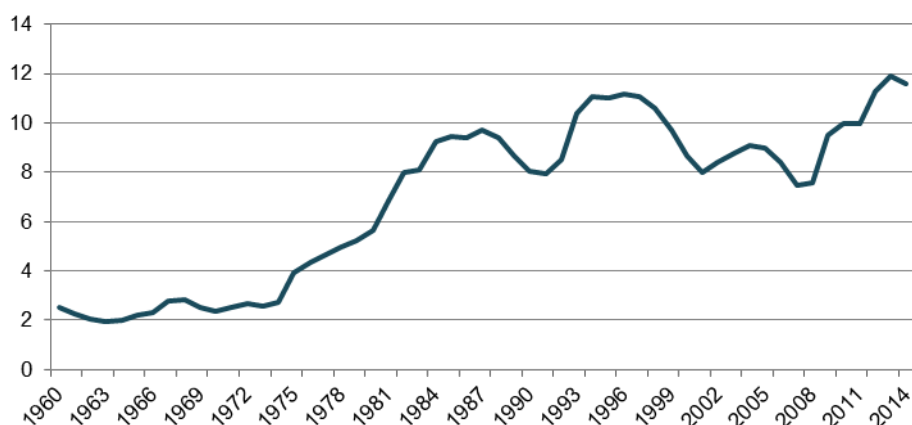


Source: AMECO database (item ALCDO)

Under growing inequality in *disposable* (post-tax and net of public transfers received) household incomes and the fast rise in unemployment, a weakening pace of growth of private consumption is only to be expected.<sup>6</sup>

<sup>6</sup> Reliable disposable (*post-tax*) income inequality measures for the whole euro area are not available. Also, such measures for the individual euro area countries are quite patchy even for the 1980s. Nonetheless, according to OECD sources, the inequality in major euro area countries has been on the rise for quite some time. The earliest Gini coefficients reported for Finland, Germany, Italy, Luxembourg and the Netherlands (years 1984-86) stood at 0.209, 0.251, 0.387, 0.247 and 0.272 respectively. By 2010 these had *risen* to 0.260, 0.288, 0.319, 0.270 and 0.288 respectively. The Gini for France rose

**Figure 4.** Euro area (12 original members) – unemployment rate



Source: AMECO database (item ZUTN)

### Falling wage share: not quite a ‘natural development’

It is certainly possible to claim that the secular decline in the wage share has been a *natural* development, reflecting the secularly diminishing ‘marginal productivity’ of labour. However, there is an alternative explanation. Labour started to lose out (to ‘capital’) sometime in the mid-1970s – just as the basic paradigms behind the post-war economic systems adopted in the West were suddenly changed. The demise of the Bretton Woods system (1971-73) was only the first sign of the materialising paradigm change. This was soon followed by more ominous changes initiated in the UK and the USA and then ‘borrowed’ in the major continental European countries. These changes included progressing internal and external liberalisations, wholesale privatisations, unleashing of the financial sectors, the ‘taming’ of the trade unions, labour markets’ ‘flexibilisations’, and successive rounds of ‘reforms’ contracting the welfare state institutions. The war against high ‘imported inflation’ was eventually won upon the application of murderously high interest rates. Labour was the primary ‘collateral casualty’ of that war. High and rising unemployment ‘disciplined’ workers, beat them into submission over deteriorating conditions of pay and work.

Despite the eventual ‘victory’ over high inflation (around 1990) the position of labour has not been improving in the euro area. High unemployment (whose effective reduction through active fiscal policy was outlawed by the Maastricht Treaty) has kept wages on a short leash. The European Central Bank, long guided by paranoid fears of inflation (in excess of 2%), has been the second guardian of the policy responsible for the suppression of wages and the permanence of high unemployment. The ECB’s routine insistence on ‘wage moderation’ (especially during Mr Trichet’s Presidency) is well documented.

Most importantly, wages in the whole euro area are kept depressed by the fierce internal competition imposed on the whole area by Germany whose permanent policy has been to keep wages trailing far behind productivity (Fig. 5).<sup>7</sup> There can be little doubt that external liberalisation (globalisation) has also been responsible for the euro area’s falling wage share

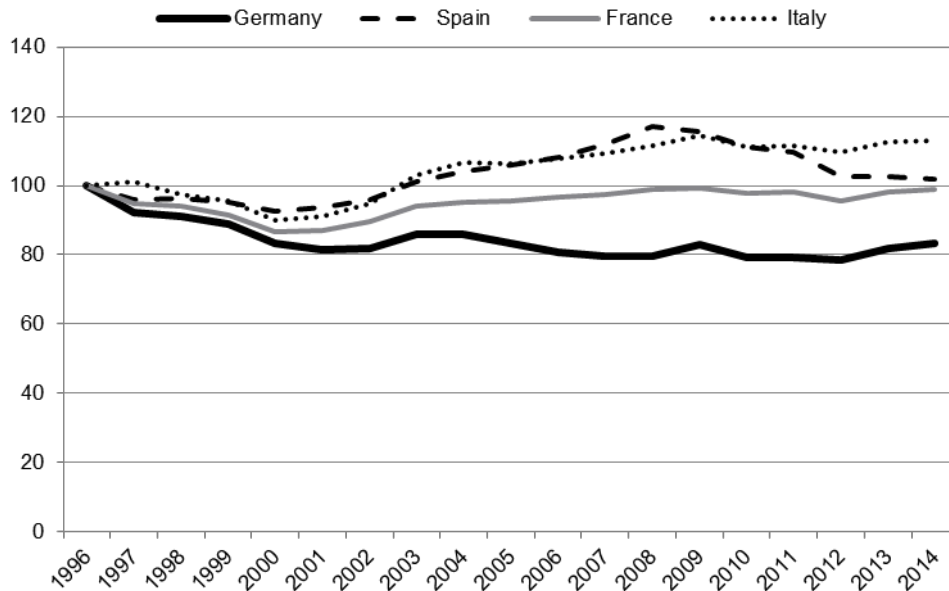
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from 0.277 (in 1996) to 0.303 by 2010. The Spanish and Irish Ginis rose from 0.330 and 0.314 in 2004 to 0.338 and 0.331 by 2010 respectively. The Ginis for Belgium and Portugal fell from 0.270 and 0.378 in 2004 to 0.262 and 0.344 by 2010 respectively. Finally, also the Greek Gini fell: from 0.345 in 1986 to 0.337 by 2010.

<sup>7</sup> Germany’s destructive internal economic policies are analysed in e.g. Bibow (2013).

(e.g. through actual outsourcing/offshoring of production activities to low-wage/low-tax destinations, or through credible threats of such actions).

**Figure 5.** Real effective exchange rates for the four largest euro area countries, based on unit labour costs (total economy), performance relative to the rest of 37 industrial countries: double export weights

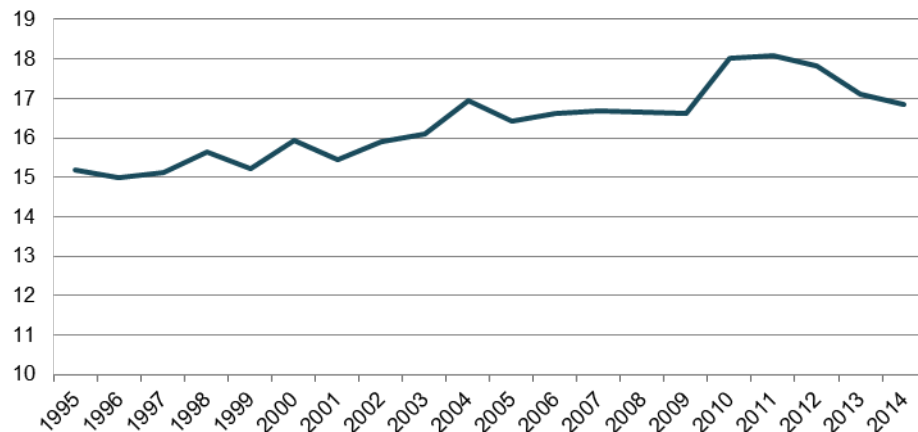


Source: Own calculations based on AMECO database (item XUNRQ)

### Unhelpful fiscal policies

It is obvious that fiscal policies played a role in inducing higher inequality in disposable incomes (via the very well documented flattening of the personal income tax schedules that started in the 1980s). Falling rates of effective taxation of (rising) corporate profits (only too well documented) must have played a similar role (see Fig. 6).

**Figure 6.** Euro area (12 original members) – share of corporate disposable income in total private disposable income

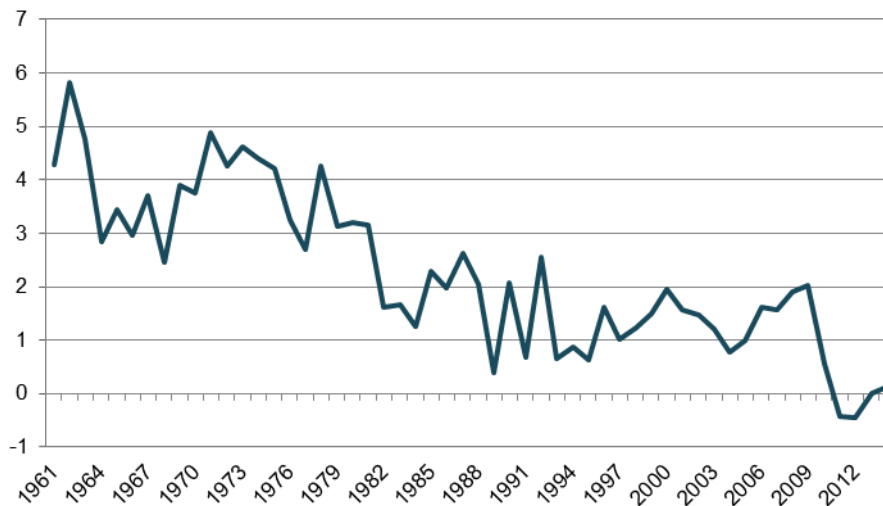


Source: Own calculations based on AMECO database (items UVGH and UVGC)



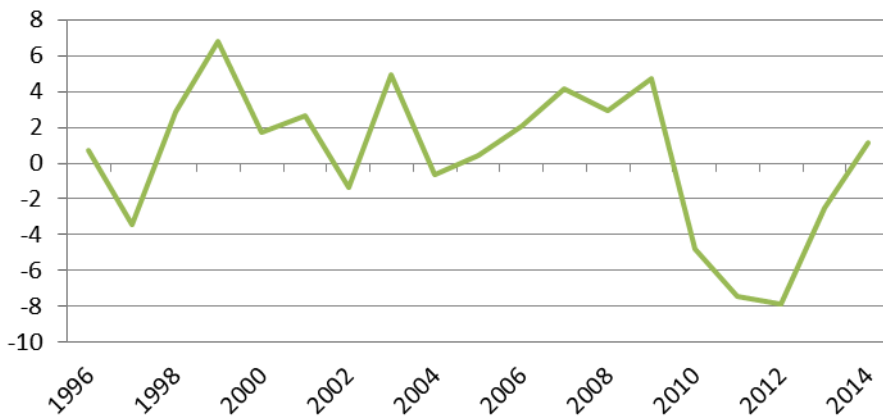
Moreover, there has been a tendency for the rates of indirect (consumption) taxes to creep up.<sup>8</sup> Fiscal policies have additionally supported the growth slowdown through an increasingly ungenerous approach to public consumption and investment. Since about 1975 the rates of growth of public consumption and investment have been trending downwards (Figs. 7-8). Fiscal policy does not shy away from limiting public consumption even if there is a severe fall in private consumption and investment. The contraction of public consumption and investment after 2010 was a factor behind the recent anaemic overall performance (and the recession of 2012 in particular).

**Figure 7.** Euro area (12 original members) – growth rate of per capita public consumption (%)



Source: Own calculations based on AMECO database (items OCTG and NPTD)

**Figure 8.** Euro area (12 original members) – growth rate of per capita public gross fixed capital formation (%)



Source: Own calculations based on AMECO database (items UIGG, PIGT, NPTD)

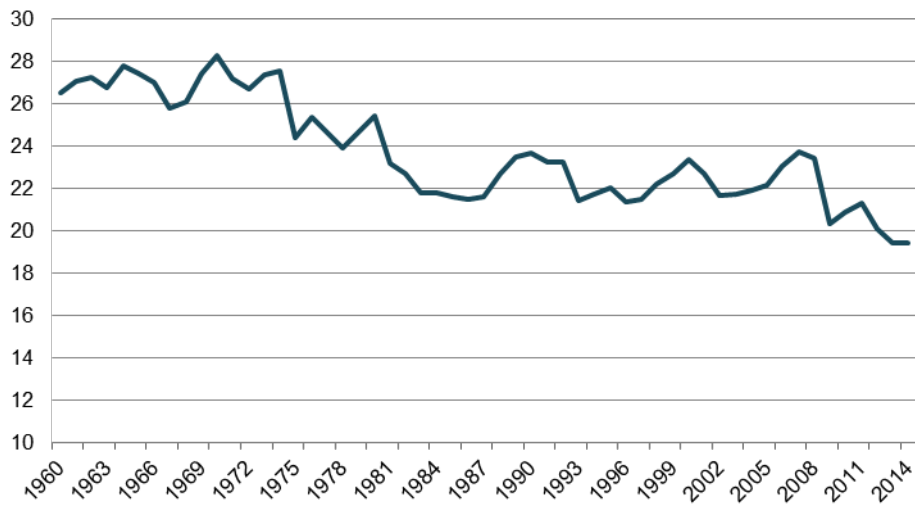
<sup>8</sup> The history of German VAT rates is quite instructive. The standard (basic) VAT rate stood at 10% until mid-1968. An 11% rate followed and was in force until end-1977. A 12% rate lasted until mid-1979. Then a 13% rate 'ruled' – until mid-1983 when it was raised to 14%, only to be replaced by 15% at the beginning of 1993. 16% came on 1 April 1998. The present rate (19%) came into force at the beginning of 2007.



### Increased profit shares (and rates) are conducive to a slower rise in capital formation

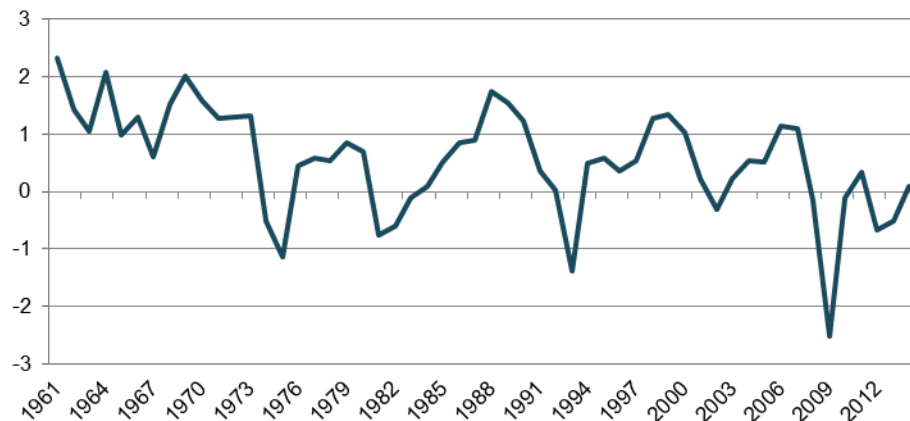
Increased GDP profit shares have not translated into faster growth of productive investment. On the contrary, the growth rate of gross fixed capital formation in the euro area has been on a downward trend and the GDP share of gross capital formation has been falling (Fig. 9). The contribution of gross fixed capital formation to GDP growth – quite high and stable until 1973 – has become very volatile and generally much lower since (Fig. 10). Apparently, the rising profit shares (and rates) are not conducive to rising productive *domestic* investment (though, of course, rising profit shares may have been fuelling higher capital formation in the low-wage/low-tax places outside the euro area, and outside the EU). Clearly, investment growth in the euro area has been wage-led, rather than profit-led. And this suggests that also the overall euro area GDP growth has been wage-led, and not profit-led.<sup>9</sup>

**Figure 9.** Euro area (12 original members) – GDP share of gross capital formation



Source: Own calculations based on AMECO database (items UITT and UVGD)

**Figure 10.** Euro area (12 original members) – contribution (percentage points) of gross fixed capital formation to GDP growth rate



Source: AMECO database (item CVGD2)

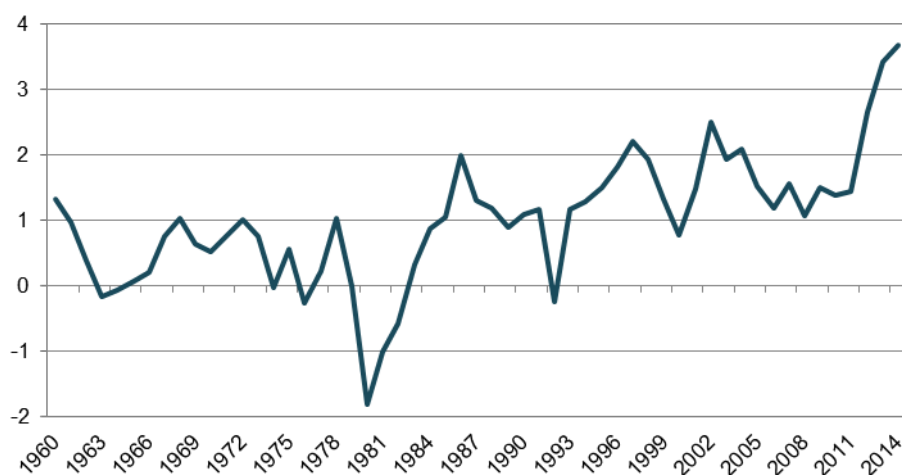
<sup>9</sup> On wage-led vs. profit-led growth see e.g. Bhaduri and Marglin (1990).

## The mirage of export-led growth

The EU officials and politicians seem to firmly believe that the euro area's (and the EU's) continuing stagnation is primarily due to: (1) inadequate attention being paid to 'fiscal discipline'; and (2) individual Member States' unwillingness to emulate Germany's restrictive wage policies.<sup>10</sup> The practical policies which follow (of which the 2013 Fiscal Compact is the recent incarnation) seem to promise 'more of the same' – continuing austerity-induced stagnation rather than any sustained (and sustainable) growth acceleration.

It may be added that the European Commission's idea of the whole euro area (and then the whole EU) becoming – in economic terms – a 'larger Germany' with growth primarily driven by expanding trade surpluses is a mirage. The euro area has *already* become a chronic large-surplus region (Fig. 11), without this helping to speed up growth.

**Figure 11.** Euro area (12 original members) – GDP share of trade balance (goods and services)



Source: Own calculations based on AMECO database (items UBGS and UVGD)

A further expansion of trade surpluses may require the presence of foreign economies ready to keep indebting themselves vs. the euro area indefinitely. Can the rest of the world become such a *permanent* net importer of the last instance for the euro area? Can the euro area accept the role of the creditor of the rest of the world indefinitely? These are rather rhetorical questions. The answer must be no. Moreover, it ought to be observed that further 'gains' to be made on unit labour costs (necessary, as has been the case with Germany, for rising trade surpluses) imply further contractions in the wage shares, and further deceleration in the domestic investment and consumption growth. The GDP gains due to larger trade surpluses are unlikely to compensate the losses on the domestic demand. In effect, the eventual subordination of growth to rising net exports guarantees *secular stagnation* (to be occasionally punctuated by recessions provoked by the permanent deficit countries defaulting on their accumulated debt to the euro area countries).

<sup>10</sup> Of course there is also much (practically inconsequential) 'action' linked to various 'Agendas' ('Lisbon' etc.) whose declared purpose is to promote 'knowledge-based activities', 'maximum competitiveness', 'innovation', 'clustering', 'harmonisation', 'labour market flexibility', 'smart, sustainable and inclusive growth' and other such lofty ideas.

The euro area's situation is serious (but so are also Japan's and the US), as acknowledged even by representatives of the mainstream (such as e.g. Summers). This has even given rise to some original ideas such as the notion that another financial bubble – and the resultant debt-driven demand boom – could provide a stimulus ending the economy's torpor, at least for some time. This idea contains a grain of truth: inadequate demand is the key problem. However, it is quite obvious now that such debt-fed booms tend to end badly. Observe that 'bad debts' made over the bubble by the private sector must eventually be taken over by the governments. Such debts do not dissolve into thin air. Bubble-driven booms end in higher levels of *public* debts. An alternative approach would stipulate outright 'deficit spending' targeting socially worthy activities (e.g. environmental protection, health and education services etc.). As far as the level of public debt is concerned, the two approaches may be comparable. But on all other counts the outright 'deficit spending' approach is certainly superior to the one playing with the idea of engineering a financial bubble.<sup>11</sup>

Is then the situation also hopeless? In 'theory' it is not. Attempts at rebalancing the interests of labour and business need not be futile, at least in principle. And it might then be possible to achieve faster/less volatile growth of fixed investment *in* the euro area.

In 'practice', however, reverting the fatal trends in wages, consumption, investment and overall growth would require scrapping one of the most sacred economic dogmas, namely that of unconditional optimality of free international flows in goods, services and capital. As long as this dogma is unchallenged, as long as capital can freely leave the places where it has been generated, and as long as nothing prevents wages and taxation of profits from 'racing to the bottom', the situation of Europe is hopeless indeed.

### **The public sector will need to run large deficits *secularly***

The last point to make is about the future of fiscal policy. The proponents of 'sound fiscal policy' concede, grudgingly, that the public sector may make some *small* deficits *occasionally* – provided these are (over)compensated by the budgetary surpluses 'over the economic cycle'. This is a false doctrine as it implies that the private sector's savings in excess of the private sector's capital formation tend to zero over 'a cycle'. In actual fact the excess in question tends to be persistent and substantial, even if varying over time. As recently noticed (even by prominent representatives of the mainstream) there has been a secular tendency of private investment to decline. Add to this the secular tendency of private savings to stay roughly constant (or even to rise somewhat). The arithmetic outcome of the two tendencies is that the *public* sector will need to run large (and growing) deficits secularly.

The secular decline in the GDP share of gross capital formation in the euro area<sup>12</sup> may be attributed to many developments – some of them possibly under nobody's *direct* control (as recently suggested e.g. by Buiter et al., 2014, or Summers, 2014).

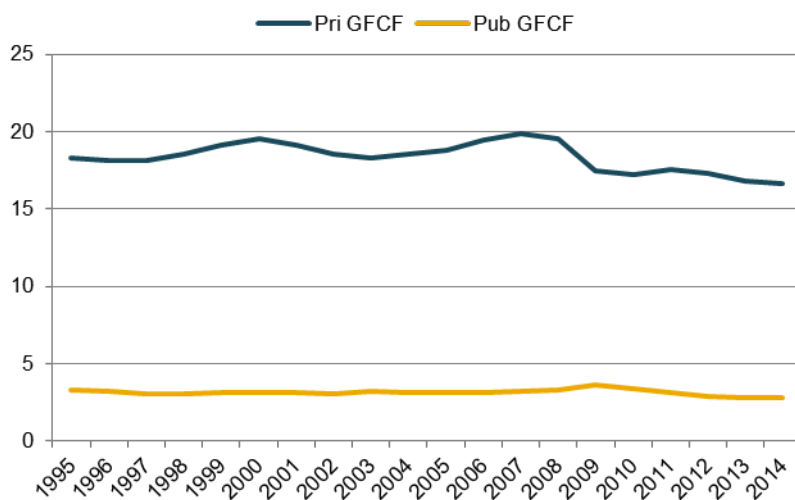
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<sup>11</sup> The debt-fed bubble which burst in 2008 had *not* driven any real private consumption boom in the *euro area taken as a whole*. Average per capita private consumption rose by slightly over 1% per annum each year from 2004 through 2007 (to be followed by contractions in 2008-09 and 2011-13, see Fig. 2). The boom was more visible in gross capital formation whose GDP share rose from 22% in 2004 to 23.7% in 2007 (to be followed by contractions in 2008-09 and 2012-14, see Figs. 9-10). The growth of consumption and investment (possibly attributable to the recent debt-fed bubble) not only proved unsustainable. In the first place it is hardly impressive (when compared with the experiences of the pre-Bretton Woods era). The difference is quite obvious. High – and sustained – rates of growth were then based on strong 'economic fundamentals': large and stable wage GDP shares, active fiscal policies and strong regulatory frameworks – all absent now.

<sup>12</sup> And actually worldwide (Podkaminer, 2013).

The available statistical sources provide data on private and public gross *fixed* investment in the euro area from 1991 on (Fig. 12). In all probability the decline in the gross investment shares (both private and public) observed since 1991 must have started much earlier – i.e. around 1975 (see Fig. 9).

**Figure 12.** Euro area (12 original members) – GDP shares (%) of public and private gross fixed capital formation



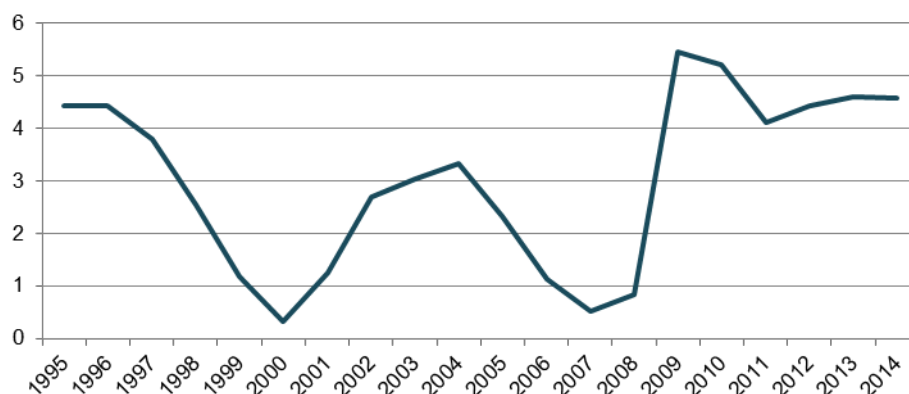
Source: Own calculations based on AMECO database (items UIGP, UIGG and UVGD).

Taking, at face value, the AMECO time series on the euro area's public sector deficit (identified with its 'net borrowing') and the euro area's net lending (to foreign parties) one can assess the size of the euro area's private sector financial balance (or the private sector's excess of gross saving over its gross capital formation):

$$(S-I) = DEF + NLA$$

where S and I are private sector (gross) savings and (gross) capital formation respectively, DEF is the public sector net borrowing (i.e. deficit) and NLA is the area's net lending to foreign parties (approximately the current account balance). The private sector financial balance thus calculated is shown in Fig. 13.

**Figure 13.** Euro area (12 original members) – GDP share (%) of private sector financial balance



Source: Own calculations based on AMECO database (items UBLA and UBLG).

If one assumes, for the sake of argument, that the NLA had not mattered much quantitatively then the private sector's financial balance from Fig. 13 would have been equal to the public sector's fiscal deficit.<sup>13</sup>

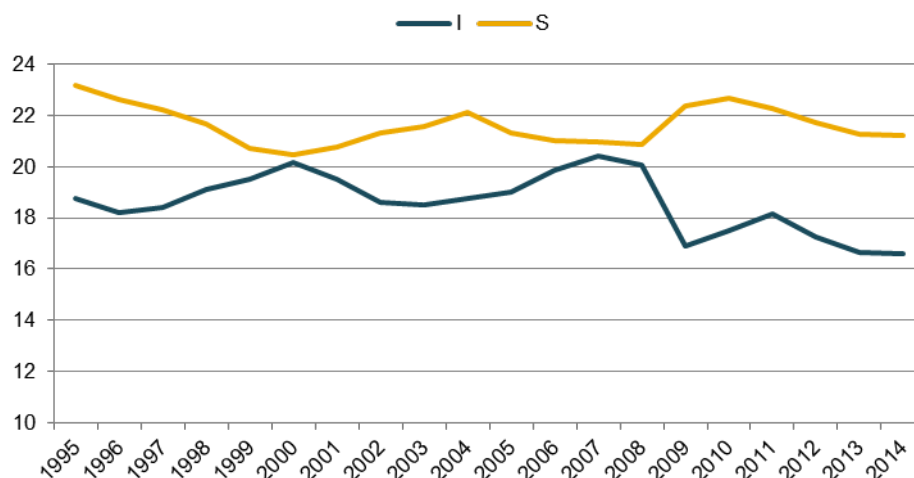
As can be seen, after a steep decline in the private sector's financial balance prior to the switch-over to the euro (2000)<sup>14</sup>, there has been a general tendency for that balance to rise. This tendency was interrupted over the period 2004-2007 which is easily identified as the housing-boom years.

Assuming, realistically, that the rest-of-the-world's capacity to absorb the euro area's trade (and current account) surpluses will be limited, the size of public sector deficits will have to be approximately equal to the financial balance of the area's private sector. This, in turn, must be equal the difference between private sector gross saving and gross capital formation. From this it is possible to calculate GDP shares of private gross capital formation (differing, insignificantly, from gross fixed capital formation). Fig. 14 shows GDP shares of gross private savings and gross private investment.

<sup>13</sup> Observe that at the global level (with the 'globe's current account' equal null by definition), the private and public sectors' financial balances must add up to zero. It turns out that since 1971 the financial balance of the global private sector has been *positive* while the global public sector has been running fiscal deficits (UNCTAD, 2013, p. 16).

<sup>14</sup> One wonders whether the fast decline in the private sector balance prior to 2000 had not been a consequence, at least in part, of 'cooking the books' by the finance authorities/statistical offices of the countries eager to be allowed to join the euro area.

**Figure 14.** Euro area (12 original members) – GDP shares (%) of gross private savings and gross private investment



Source: Own calculations based on AMECO database (items UBLG, UBLA, USGH and USGC).

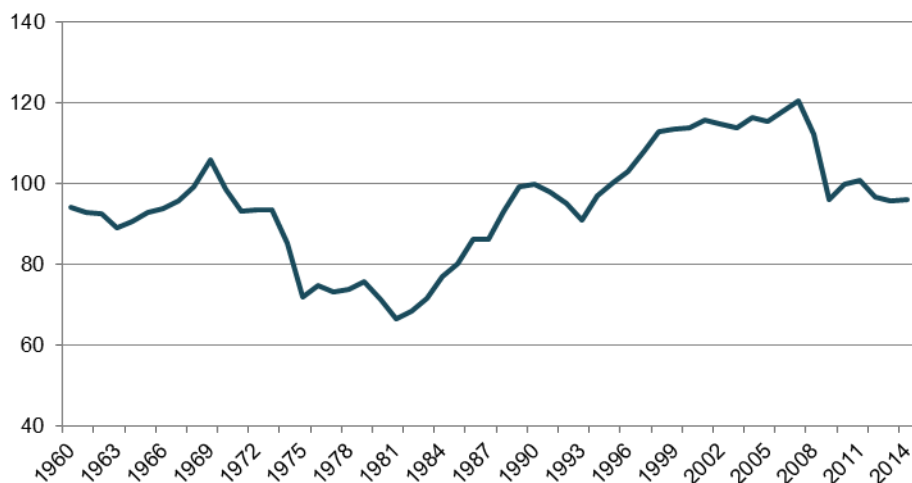
Since 2000 the *general* tendency has been for the private investment share to decline – and for the private saving share to rise. The ‘scissors’ between the two items narrowed somewhat during the housing-boom years from 2004 through 2007 – with quite destructive results, as it is now commonly known. Since 2008 the ‘scissors’ have been widening again. And so have the public sector deficits (whose size has been restricted by the euro area’s private sector’s positive, and strongly rising, net lending to the rest-of-the-world).

## Conclusions

There is, probably, little that can be realistically done to suppress the slow rise in the private saving rate (gross private savings as a proportion of GDP). If anything, the private saving rate may even increase faster as economic policies seem to be favouring the rising income inequality (e.g. through less progressive personal income taxation combined with hikes in indirect tax rates etc.). The ‘race to the bottom’ as far as wages are concerned is another reason for rising inequality and higher overall private saving propensities. Add to this the saving-supporting effects of the ongoing ‘financialisation’ of the economy (of which the expansion of the capital-funded, privately-run, pension systems – and the contraction of PAYG ones – is the best exemplification).

Even less can probably be achieved as far as private *productive* investment is concerned. Most probably, private investment will be continuing its downward slide. Interestingly, it is not the somehow depressed *profitability* of capital which makes investment in fixed assets unattractive. Actually, since the early 1980s – until 2008 – the profitability of investment in fixed assets had been rising secularly (see Fig. 15). Recently it is hovering at a level similar to that recorded during the 1960s. But in the 1960s the investment share used to be some 10 percentage points higher than currently.

**Figure 15.** Euro area (12 original members) – net returns on net capital stock, total economy, 2010=100



Source: AMECO database (series APNDK).

All in all, the euro area may *have* to run rather massive public sector deficits in the foreseeable future. The same applies to the rest of the EU – and especially to the ‘new Member States’<sup>15</sup>. As long as the area’s private sector is keen on saving income far in excess of its investment needs the slack will have to end up as public sector (or foreigners’) additional borrowing – i.e. those two sectors’ *deficits*. Despite the best (?) of intentions of the national fiscal authorities (and of the European Commission’s) the public sector will have to be making huge deficits. As long as private savings are much higher than private investments, ‘fighting’ these deficits can at best suppress real growth – but achieve nothing as far as the weight of the public deficits is concerned (Laski and Podkaminer, 2012, 2013). The guardians of the Maastricht Treaty (and of its more recent incarnations) cannot win their war with the laws of arithmetic. But the war they conduct is damaging the euro area economy severely.

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<sup>15</sup> It can be argued that the economic prospects of the former ‘transition countries’ are not enviable. These countries appear to have been ‘trapped in integration’ – i.e. compelled to emulate German mercantilist policies (Podkaminer, 2013a). As such they too have entered a path implying (slow) export-led growth. However, in contrast to Germany, their improving trade balances represent, increasingly, the rising profits of *foreign* – and i.e. not *domestic* – investors.



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# Six core assumptions for a new conceptual framework for economics

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## Introduction

This paper offers an outline for the construction of a theory of economic behavior under uncertainty which incorporates the practice of agents in their twofold role as *decision-makers* and *lobbyists*. Two scenarios (complexity and uncertainty) and the behavior under uncertainty of three different types of economic agencies (agents, theorists and philosophers) are analyzed. But although ontological issues are at the bottom of our analysis, how the world really is matters less to agents' decisions than do the *beliefs* these agents hold about reality. The perceived facts (the prevailing ontology) are more relevant for understanding the *results* of their decisions than their decisions themselves. Therefore, in order to model agents' behavior it is important to clarify their *beliefs* about both the world they inhabit and the knowledge they have about it. Their behavior will be different if they believe the world is complex or uncertain. If they believe the former and behave rationally, they will seek to use the best available information and to enlarge it as much as possible, in order to improve their decisions. If they believe that the world is uncertain, however, what would be rational is to intervene a posteriori on the original decisions for the purpose of validating them. Agents who believe in the uncertain nature of the world are moved to become lobbyists and this contributes to generate open-ended and intervenible economic processes.

If the purpose of economic theory is to model the behavior of subjects that know (or think they know) they suffer uncertainty, economic models should assume that agents behave consistently both with respect to their set of preferences and expectations (which is the usual requirement) *and regarding their epistemological and ontological beliefs*. Agents should be represented behaving consistently with respect to *all* their beliefs.

In turn, if the *theorists* believe, like agents, that the scenario is uncertain, they should also behave consistently with this belief and their theoretical practice would have to take into account the special nature of economic processes under uncertainty. In particular, they should pay attention to the lobbying practice of agents and to those conditions that enable open-ended and intervenible processes.

However, conventional theoretical practice is not concerned with uncertain scenarios. Conventional economics chooses to represent *imaginary* worlds (which Sugden designated as "parallel" worlds, which belong to the "model world", as opposed to the real world), governed by regularities or invariant conditions. This practice does not necessarily reveal inconsistency, but shows that its subject is the realm of economic representations, not the real realm of economies.

This paper also contributes to a better understanding of standard epistemology and philosophy of economics. Mainstream philosophy of economics focuses on economic representations (in particular, models) and assumes a *naturalized* view of science. This approach takes as granted the ontology and epistemology incorporated in standard models

and explains why one of the main philosophical goals of mainstream philosophy of economics is to display the rationale of theoretical economics (an exercise that is usually referred as “recovering the practice” of economic theory)<sup>1</sup>. If the philosophers’ object of thought were real economic processes, then they should critically examine the usual ontological and epistemological assumptions of mainstream modeling practice and be engaged in developing alternative assumptions for that practice consistent with the presence of uncertainty and with the acceptance of its existence by agents and theorists.

## 1. Complexity and radical uncertainty

We say that a scenario is complex when all the relevant causal factors that determine the behavior of a phenomenon are present, but agents only know (and combine) *some* of them. Under radical uncertainty, instead, the forthcoming results of the agents’ current decisions will be also determined by the values that some economic variables will adopt in the future. In an uncertain scenario these future values are unknown because they do not yet exist (actually in the present they are *in principle unknowable*).

Traditional methodology has agreed that our knowledge is uncertain, in the sense (somewhat different from the one just mentioned) that we can never be sure of the true-value of statements that say something about the world. It is interesting to note that this limitation (our inability to recognize the truth of an empirical or factual statement, even if it is in fact true) is present even in the weakest scenario (complexity) and even for those factors about which we do have information. Radical uncertainty is much more intractable than its methodological counterpart and is ultimately ontological in nature. How could agents know for certain events that do not exist yet? If the kind of uncertainty related to traditional methodology is unavoidable, it is more so in the case of radical uncertainty, which comes from the ontological nature of the economic world.

## 2. Economic agents. How can they behave rationally under uncertainty?

To start, a terminology clarification is advisable. We call individuals (basically consumers and producers) as well as firms (both small and mega-corporations) *economic agents*. Agents usually face an uncertain scenario of the ontological type. One wonders, then, how they deal with radical uncertainty. According to Keynes (1937), agents manage to face radical uncertainty using a strategy that he called practical theory about the future (PTF), which consists in the following basic rules:

- (1) We assume that the present is a much more serviceable guide to the future than a candid examination of past experience would show it to have been hitherto. In other words we largely ignore the prospect of future changes about whose actual character we know nothing.
- (2) We assume that the existing state of opinion as expressed in prices and the character of existing output is based on a correct summing up of future prospects, so that we can accept it as such unless and until something new and relevant comes into the picture.
- (3) “Knowing that our individual judgment is worthless, we endeavour to fall back on the judgment of the rest of the world which is perhaps better informed. That is, we

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<sup>1</sup> See Caldwell (1994).

endeavor to conform with the behaviour of the majority or the average. The psychology of a society of individuals each of whom is endeavouring to copy the others lead to what we may strictly term a conventional judgment” (Keynes, 1937, p. 214).

Keynes warned that this strategy, consisting of pretending we know what we do not (and cannot) know, is normally useful but it is, in fact, ungrounded and the convictions it instill are circumstantial and volatile. In fact, the situation that encourages agents to relay confidently on these assumptions can suddenly change, prompting the abandonment of PTF.

“The practice of calmness and immobility, of certainty and security, suddenly breaks down. New fears and hopes will, without warning, take charge of human conduct. The forces of disillusion may suddenly impose a new conventional basis of valuation. All these pretty, polite techniques, made for a well-panelled board room and a nicely regulated market, are liable to collapse. At all times the vague panic fears, and equally vague and unreasoned hopes are not really lulled, and lie but a little way below the surface” (Keynes, 1937, p. 215).

Davidson (2003) has drawn attention to an instrument that can be considered as an enlargement of PTF: contracts. A contract establishes a certain regularity that provides predictability about side issues concerning decision-making, such as the terms and forms of payment. Thanks to contracts many important details concerning transactions are known (there is no uncertainty about this matter), which induces agents to apply PTF without further reserve.

It should be noted, however, that both strategies (PTF and contracts) seem to be better suited for a complex context than for an uncertain one. PTF is inconsistent with the ontological and epistemic beliefs we attribute to agents. The first two techniques directly deny uncertainty. The third presents a somewhat different difficulty. Assumed that agents believe that the world is complex, they can consistently imitate other agents because they may believe that others have the information that they haven't. Agents may believe this because they also believe that the information is available (they have not collected it but others could have it). But if agents believe the world is uncertain, they are also committed to believe that others cannot possibly currently have the relevant information that is needed to know what decision will get the best results in the future.

Thus, contracts only contribute to “reduce” (not to eliminate) uncertainty (which strictly speaking is not removable). Because, first, the (future) values of most economic variables are not set by contract. And secondly, what ensures that contracts will be honored? Why would I be right or have a “calculable risk” for these future events? It seems that regarding contracts there arises a second-order type of uncertainty. Of course it might be eliminated in the usual way: strengthening the PTF using the additional assumption that the conditions guaranteeing the performance of contracts today will survive in the future. But how could this belief be consistent with the belief that genuine uncertainty prevails and that future events are largely determined by events that are going to occur in the future? Think of the 2007-2008 crisis. What happens with contracts when the payment chain breaks? Crises are not exceptional, they are recurrent. And when they break out many previous contracts and agreements are violated.

In short, both approaches (PTF and contracts) are inconsistent with the assumption that at their heart agents know that the state (value) of future economic variables is presently unknowable. Ultimately, we are all Socratic in the sense that we know we do not know that.<sup>2</sup> However, as long as they can, agents behave in a way that reveals their true beliefs and somehow restores consistency. When they are strong enough to affect the market they do not restrict themselves to making decisions and then sit down to await the outcome of their original actions. Rather they become actively involved in enforcing the outcome that is most convenient to them. I designate this role as *lobbying*. Agents, in addition to being decision-makers, can also be lobbyists. Assuming an active role is their way of restoring the apparent inconsistency aforementioned: agents take decisions assuming PTF and negotiating contracts, but a posteriori of that decision they strive to influence the course of economic phenomena in order to guarantee that their original decision will finally be successful.

Note that if agents did not believe that economic issues develop in a context of radical uncertainty, they would not intervene continuously once their decisions are taken (they would not need to do that, because the result of their current decisions would be recognizable *ex-ante*). This is the difference between the model world and the real world. Model-world agents have (by hypothesis) all the knowledge they need to “go fishing” after their decisions has been taken. The real world is another matter. In fact, agents get involved with the processes all the time to enforce the success of their previous decisions. A vision able to give meaning to this practice is needed. That is, what is required is a theory of economic action that takes into account the agents’ *lobbyist* role. Lobbying should be included in the agenda of theoretical economics.

### 3. Two roles for economic agents

I have already explained the difference between complex and uncertain worlds, and highlighted the importance of agents’ beliefs about how the world is and of the knowledge they can possibly have about it have for decision making. Now it is time to consider in more detail two different roles agents play in the economic process: **decision-makers** and **lobbyists**

Individuals or firms may take economic decisions (behaving as decision-makers), or may influence economic performance in a broader sense with the purpose of enforcing the success of their decisions. In this second role they behave as lobbyists. The category of lobbyists includes the government, media of communication, corporations, unions, political parties and any individual or groups of individuals that are strong enough to influence the course of economic events. They may try to influence the expectations of other agents or the relevant economic context (promoting changes into the legislation, new regulations and institutions, etc).

The distinction between decision-makers and lobbyists refers exclusively to two different roles that the very same agents can play. One way to visualize this difference is to base it on two stages of economic processes: the time before and after decision-making.

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<sup>2</sup> “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” (Davidson, 2012)

t0 (PTF - contracts)    t1    (Lobbying)  
..... D .....

Between t0 and t1, agents consider the available alternatives given the information they have, and finally take a decision D. Although decision-makers believe that the world is uncertain they manage to face the situation using PTF.<sup>3</sup> All agents behave in this way in ordinary circumstances. But look what happens then. Many have no choice but to sit down once they have made a decision and wait to find out what outcome the market will provide for them. But many agents have another option: they can actively intervene in the market after t1, trying to shape the course of economic processes in a way that favors their interests. Lobbyists have behaved as simple decision-makers prior to t1 (i.e., they have naively used PTF), but because they believe that the world is uncertain and have the ability to intervene and help to generate the consequences they want to see realized, they take an active participation on the market after t1. Lobbyists may be characterized by three main features:

1. Knowledge (beliefs). They believe that the social world is uncertain, that agents decide on the basis of expectations that may be influenced in various ways, using a wide range of information that goes beyond purely economic factors, that institutions and regulations can be made and unmade, etc.
2. Consistency. They have a consistent set of beliefs and behave consistently with respect to them.
3. Lobbying capacity. Due to the size of their capital or their privileged access to positions of power, they have the ability to intervene effectively on the decisions of other agents, either directly (suggesting to them what to expect), or indirectly (modifying or helping to create the economically relevant context).

Like agents, lobbyists suffer uncertainty too. They are unsure about whether their extra-economic activities (as lobbyists) will allow them to get in the future the results expected in the present. They do not know whether their intervention will be successful given that there are also other lobbyists intervening in order to push the process along lines that are not beneficial for them. Nonetheless they do have some useful knowledge, which encourages them to keep trying to influence the process. For instance, they know what measures (bills, regulations, decision-makers' reactions) will be beneficial for them and the sort of participation that will contribute to enforce those measures and reactions.

Keynes outlined a purely passive way to deal with uncertainty. Davidson's suggestion that contracts may offer additional help to deal with uncertainty has a similar spirit: contracts enter in the picture as a preexisting factor in decision-making, helping to make it possible (providing more confidence in the expected result). Here I have suggested a strategy to deal with uncertainty that goes the other way around. Agents who are aware that their decisions (and their results) face genuine uncertainty try to influence the course of events so as to reach their preferred result. When they have the power they become lobbyists, and get involved in shaping the economic process because they are aware that their further actions, those which occur *after* the decision has been taken, are the ones that will be most decisive for the final results. If there is any rationality in economic action under conditions of radical uncertainty it should be found in the agents' involvement in shaping economic processes.

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<sup>3</sup> According to Keynes, such techniques allow us "to behave in a manner which saves our faces as rational, economic men" (Keynes, 2002, 114).



#### 4. Theoretical practice under uncertainty

So far we have only referred to agents in their twofold role of *decision makers* and *lobbyists*. Outside the market process but interested in figuring out its workings and building models are theorists, who have to make their own decisions about how to depict the relevant agents, what beliefs and expectations to ascribe to them and how to characterize the economic processes in which agents get involved.<sup>4</sup>

Describing agents' behavior, I assumed that they were aware they were facing an uncertain context. With more reason, theorists should be conscious of the prevalence of this critical feature. One might expect that their theoretical practice, being consistent with their ontological and epistemological beliefs, should incorporate agents facing an uncertain context. However, from the very beginning, the construction of economic theory as a scientific discipline deliberately assumed a sharp break with this feature of real economies. Mill, Menger, Walras and many other classical economists have stated explicitly from the very beginning that the results of economic science are dissociated from their applications. Lucas has been even more explicit about this issue and has claimed that denying uncertainty is a necessary condition for economics to be scientific (Lucas, 1981).<sup>5</sup> As a result, theoretical economic practice has not taken uncertain scenarios as objects of reflection, but has proceeded to make up imaginary worlds where regularities governed by calculable risk can be found, and has focused on the examination of the properties of these representations.

A common way to get models that exclude uncertainty is to adopt what Davidson called the ergodic axiom, which allows using past data for assigning probabilities to future phenomena. This axiom is particularly suitable for theoretical practice based upon some kinds of imaginary worlds. It presupposes a set of ontological and epistemological assumptions that underlie conventional theoretical practice in economics. It is illuminating to see this set of assumptions as a sophisticated version of PTF, which allows a scientific treatment of economic phenomena.<sup>6</sup> Particularly, it allows economists to deal with uncertainty in their theoretical practice. Adapting Keynes' words we will call this set of beliefs Scientific Theory about the Future (STF). Its main presuppositions are:

- 1) Specific economies "contain" laws, mechanisms or some kind of regularities. They are invariant (stable) features of the economic processes that lie below the surface of economic phenomena.

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<sup>4</sup> Though theorists qua theorists do not actively participate in the economic processes their theoretical contributions also play an influential role in shaping agents' expectations and hence upon the conformation of the resulting economic phenomena. For this reason they may be considered a particular type of players. Some of them may be lobbyists as long as they represent some particular economic interests, but probably most economists do not intend to perform this role.

<sup>5</sup> "[This hypothesis] will most likely be useful in situations in which the probabilities of interest concern a fairly well defined recurrent event, situations of 'risk' [where] behavior may be explainable in terms of economic theory ... In cases of uncertainty, economic reasoning will be of no value ... Insofar as business cycles can be viewed as repeated instances of essentially similar events, it will be reasonable to treat agents as reacting to cyclical changes as 'risk', or to assume their expectations are rational, that they have fairly stable arrangements for collecting and processing information, and that they utilize this information in forecasting the future in a stable way, free of systemic and easily correctable biases." [Lucas 1981:224] *Studies in Business-Cycle Theory*.

<sup>6</sup> "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 theory. 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" (Davidson, 2012, p. 59).



2) The role of theoretical practice (or one of its fundamental roles) is to discover these invariants.

3) This invariant knowledge refers to the future and is obtainable ex-ante (mainly by models).

To these ontological and epistemological assumptions conventional economics usually adds a practical one:

4) Without having the invariant knowledge mentioned in (2) and (3) it is not legitimate to recommend economic policies.

Those theorists who share this set of beliefs model no uncertain contexts and try to describe the behavior of a mechanism that generates a stable process from the interplay of agents, regardless of their deliberate attempts (as lobbyists) to interfere with the “natural” course of events. From this perspective it is natural to stress that the role of social or economic theory is to investigate the unwanted (and unexpected) consequences of agents’ decisions. And it is also clear why those theorists need not consider incorporating lobbyists to their approach. The only case in which the lobbyists’ role is taken into account concerns the participation of the State, which is usually incorporated in combination with the view that its interventions will yield unintended (unwanted) consequences.

Summing up, conventional theoretical practice has not considered those central features that characterize economies as uncertain systems. Rather it has proceeded in two steps: a) creating imaginary worlds governed by regularities or invariant parameters that do not have a counterpart in real economies; b) exploring the workings of these imaginary worlds. I suggest that such theoretical practice has developed in an inward-looking way (focusing more on its own product than paying attention to economic phenomena as they occur in specific concrete economies). Conventional economics has created its own object of study. Substituting the examination of imaginary worlds for the analysis of real economies saves theorists from falling into inconsistencies: their belief in the uncertain nature of current economic processes is not inconsistent with their belief that within the model-world regular knowledge of “future” events is possible (where “future” refers to logical, not historical, time).

## **5. Alternative theoretical practice**

If theoretical models assume uncertainty, however, and assume that agents have epistemic and ontological beliefs consistent with this state of affairs, the proper way to approach the course of economic phenomena should be very different. Particularly in place of mechanisms or economic regularities that keep running independently of agents’ expectations, the decisive role of lobbyists within open-ended processes based on expectations should be incorporated into the analysis. Such an alternative approach to economics could be based on the following set of assumptions which focuses on the lobbyist role of agents and the special kind of practical knowledge and skills they need. Choosing this approach means abandoning the pretense of scientific status desired by Lucas, which is obtainable at the price of assuming TCF. I suggest that the following assumptions could be the philosophical core of a new conceptual framework for economics:

1) There are economic processes based on expectations and characterized by radical uncertainty. Agents involved in such processes act in two different ways (as decision-makers or as lobbyists)

2) Ex-ante knowledge of invariant sequences of events is generally not possible (because there are few if any sequences of this kind); more importantly, such knowledge is unnecessary as support and justification for the implementation of economic policies.

3) The role of theoretical practice is to identify the many feasible “branches” of a “tree of plausible outcomes” as well as the restrictions that each sequence of events faces.

4) It is not known (and it is not possible to know) ex-ante what “branches” of the tree (what sequences of feasible alternative events) will prevail. Science cannot help us with this.

5) Other types of knowledge (common and practical knowledge as well as practical skills) are crucial for shaping those processes. It is a sort of know-how knowledge, closer to management and administration than to scientific economics.

6) Although – as was shown in point (3) – theoretical practice has an important role to play in shaping processes, what is crucial in this endeavor is another practice, which we denote as lobbyist (interventional) practice (LP). As mentioned above, LP is performed by a wide range of economic players (mostly different kinds of interest groups who are able to operate in the relevant context and on agents’ expectations).

A theoretical practice compatible with all these assumptions and that also incorporates uncertainty, new key players – as lobbyists – and new forms of rationality, knowledge and skills will be a huge contribution for an understanding of economic processes.

## **6. Philosophy of economics**

A theory of economic action should consider the distinctive features of economic processes under uncertainty and explain the pervasive role of lobbyists along these processes. Are mainstream philosophers of economics not interested in recovering *this* practice? The fact that they do not even try to do it is an indication that they are stuck in a philosophical conceptual framework, conditioned by the untenable assumptions of CTF. Most of the current philosophy of economics is actually a philosophy of economic representations. It does not deal with economic processes but with their usual oversimplified representations (conventional economic models) which, as we have seen, leaves out of consideration the very crucial features of these processes.

Arguably conventional economic theory and mainstream philosophy of economics share their object of analysis: the world of models; but approach it with different interests, which ultimately are complementary. Theorists have constructed imaginary worlds with the purpose of examining their properties. Philosophers seek ways to provide epistemic legitimacy to this practice. They seek to develop arguments to show in what sense such models would be able to contribute to the discovery of causal connections, in what sense they could explain and predict, and how the knowledge obtained there could be profitably used in concrete applications to market economies. Naturally, it is an arduous task, which contradicts the wisdom of those who pioneered in pondering economic theory and warned that no applications could be expected from such intellectual exercises.

If an alternative theoretical practice in economics which deals with relevant problems of real economic processes is feasible, the same may be expected from the Philosophy of Economics. A relevant philosophy of economics can be developed along two interrelated lines. First it may approach features of real economies, like uncertainty, lobbyists practice and

the kinds of expertise and skills involved in the shaping of economic processes. Second, even though in the philosophy of science the target usually must be disciplinary representations, an alternative philosophy of economic representations is possible. Specifically, one that critically examines the usual ontological and epistemological assumptions of mainstream modeling practice, and develops the basics of alternative assumptions that are consistent with the presence of uncertainty and the recognition of its existence as due to agents and actors. This paper is an attempt to call attention to the convenience of proceeding along both these lines.

## Conclusions

An outline for the construction of a theory of economic behavior under uncertainty, that incorporates the practice of agents as lobbyists and examines the special way in which they might behave rationally, has been proposed. It has been argued that conventional economic theory does not deal with uncertain scenarios but takes as its subject of analysis invariant regularities governing imaginary worlds. Economic theory as well as conventional philosophy of economics which provides its epistemic support and legitimization, deals with (fictional) representations and not with real economic processes.

The above considerations help explain why no significant concrete results come from the application of conventional economic models. In particular, it helps to understand why a successful applied economic science has not been established so far. It also explains the limitations of mainstream philosophy of economics to justify the epistemic relevance of conventional economic models. Our analysis has also positive suggestions. It shows that both a theoretical economic practice as well as a philosophical reflection upon it, different than the usual ones, are imaginable and it points out some issues and assumptions that should be incorporated into the analysis. Our approach encourages philosophers to pay more attention to theoretical treatments of intervenible open-ended processes based on expectations as well as to agents' lobbyist practices and the kind of abilities needed to successfully influence the processes in order to obtain the desired results. These brief notes, I hope, offer an outline of a new Non mainstream philosophy of economics.

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# The Federal Reserve and shared prosperity: a guide to the policy issues and institutional challenges<sup>1</sup>

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## Abstract

The Federal Reserve is a hugely powerful institution whose policies ramify with enormous effect throughout economy. In the wake of the Great Recession, monetary policy focused on quantitative easing. Now, there is talk of normalizing monetary policy and interest rates. That conversation is important, but it is also too narrow and keeps policy locked into a failed *status quo*. There is need for a larger conversation regarding the entire framework for monetary policy and how central banks can contribute to shared prosperity. It is doubtful the US can achieve shared prosperity without the policy cooperation of the Fed. That makes understanding the Federal Reserve, the policy issues and institutional challenges, of critical importance.

## I. Why the Federal Reserve matters

The Federal Reserve (the “Fed”) is one of the most powerful economic institutions in the US and in the world. Its policies and actions affect interest rates, the stock market, the quantity and allocation of credit and the exchange rate, to name just a few of the critical variables it impacts. Those variables, in turn, affect the employment and unemployment rates, the rate of growth, income distribution, wages, the trade deficit, the budget deficit, Social Security solvency, the housing market, construction employment, manufacturing employment and many other economic outcome variables.

Additionally, as one of the nation’s preeminent economic policy institutions, the Fed has enormous influence on the overall national economic policy conversation via its bully pulpit and via the hundreds of senior economists it employs. For instance, former Fed Chairman Alan Greenspan was a booster of globalization, fiscal austerity, Social Security benefit cuts and deregulation, and he did great damage by using his pulpit to push those views. In contrast, new Fed Chairwoman Janet Yellen has had a positive progressive impact by using her pulpit to direct attention to the continuing high rate of unemployment and shortage of jobs.

Above all, Federal Reserve policy is critical for the attainment of full employment, and full employment is the bedrock of shared prosperity. That is because workers need jobs to provide income, and full employment ensures jobs are available for all. Full employment also creates an environment of labor scarcity in which workers can bargain for a fair share of productivity, making it essential for decent wages.<sup>2</sup> This puts the Fed at the epicenter of the

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<sup>1</sup> This paper represents the views of the author and not those of the AFL-CIO. The author thanks Ron Blackwell for his especially helpful comments about the significance of full employment, and also thanks Jane D’Arista and Tom Schlesinger for their helpful comments. The author takes full responsibility for any errors or inaccuracies.

<sup>2</sup> This importance of full employment for bargaining makes it relevant for unions. Though unions have additional bargaining power that comes from their existence, unions will face headwinds in the absence of full employment. Weak labor markets mean firms can threaten to replace unionized workers with non-unionized workers, and firms also have an incentive to build new non-unionized plants. Furthermore,

issue, and for that reason the Humphrey-Hawkins Full Employment and Balanced Growth Act (1978) legally mandates the Fed to pursue policies that promote maximum employment with price stability. However, the Fed has not been doing that for the past thirty-five years, preferring to emphasize concerns with price stability (i.e. inflation). That policy preference has been justified by the claims of neoliberal economists that full employment will take care of itself if inflation is low and stable.<sup>3</sup> Reversing that stance and the understandings which have justified it is essential to restoring shared prosperity.

## **II. Policy challenges and threats**

Getting the Fed to adopt full employment policies confronts several challenges and threats. The challenges concern permanently changing the Fed's policy framework. The threats are the risk that the Fed may tighten current policy in an anti-full employment manner. In particular, there is an omnipresent danger that the Fed prematurely tightens monetary policy in the name of preventing inflation, despite the fact the economy is far away from full employment.

### ***II.A Restore “full employment” monetary policy***

#### *II.A.1 Rehabilitate full employment.*

With regard to policy framework, the central challenge is to rehabilitate full employment as the number one policy priority.<sup>4</sup> The thirty years after World War II witnessed an era of shared prosperity that is now widely referred to as the “golden age”. Spurred by memories of the Great Depression and the insights of Keynesian economics, full employment was made the dominant policy goal. In the 1970s, under the pressure of higher inflation caused by the OPEC oil shocks and labor-capital conflict over income distribution, the focus on full employment was abandoned and replaced with a focus on controlling inflation. Among economists, the shift of policy focus was justified by Milton Friedman's (1968) theory of the natural rate of unemployment which maintained the economy quickly and automatically restores full employment on its own. Furthermore, monetary policy cannot affect employment, wages or growth and can only affect inflation. Given that, it made sense for policy to focus exclusively on targeting low inflation – and the Federal Reserve strongly bought into this way of thinking.

That policy shift has been disastrous for shared prosperity because of the vital significance of full employment. It makes rehabilitating full employment a critical policy issue, which in turn raises the question of defining full employment.

The conventional definition is labor demand equal to labor supply. However, in reality, there is always some unemployment owing to frictions that prevent firms and workers matching up. It takes time for job seekers to find the right job, time for firms to find the right worker, and jobs and workers may also be in different locations. Consequently, there is always some frictional

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weak labor markets create tensions between union and non-union worker by allowing firms to fan resentment at the better wages and employment conditions of unionized workers.

<sup>3</sup> The Fed's retreat from concern with full employment has been part of a general retreat by the entire Washington policy establishment. After World War II through to the mid-1970s, full employment was the central goal of national economic policy. Today, it is not at the center of either the Republican agenda or the agenda of elite Democrats who control the Democratic Party.

<sup>4</sup> Ron Blackwell, former Chief Economist of the AFL-CIO, made the same policy recommendation in testimony before the House Committee on Financial Services in February, 2007.

unemployment at full employment.<sup>5</sup> However, this is a useless policy guide because of difficulty distinguishing frictional from other unemployment. That means we need other measures to define full employment.

A second definition of full employment (Keynes, 1936) is a situation where there is no employment gain in response to increased demand for goods and services. In a large economy with many sectors, that implies inflation will likely be above 2 percent at full employment because increased demand will create jobs in sectors with unemployment, but raise prices in sectors at full capacity. This Keynesian definition spotlights the importance of the debate over what constitutes acceptable inflation. Policymakers who argue for a 2 percent inflation target or less are implicitly arguing against full employment. In normal times, a full employment inflation target should be 3 or even 4 percent.

A third definition of full employment is a situation where the number of job vacancies equals the number of unemployed.<sup>6</sup> That is an easily understandable and operational definition. According to it, the US is still far from full employment. In June 2014 there were 4.7 million job openings and 9.5 million unemployed, without even counting workers who wanted full time work and could not find it or who had left the labor for lack of job opportunities.

A fourth definition of full employment is a situation where real (i.e. purchasing power) wages rise at the rate of productivity growth (Palley, 2007). That means money wages increase at inflation plus productivity. The rationale is workers only share in productivity growth when they have bargaining power, which requires full employment. *Ergo*, rising real wages is an indication of full employment. However, today, even this definition risks stopping short of full employment because real wages have lagged productivity growth for years. This has created room for catch-up, so real wage growth can exceed productivity growth for a while as profit margins return to more normal levels.<sup>7</sup>

Each of these definitions touches the full employment elephant from a different angle. Paraphrasing Justice Potter Stewart, full employment is a little like pornography: difficult to define but you know it when you see it. The best definition encompasses all: the unemployment rate is low; job vacancies are plentiful so workers can find jobs easily; the inflation rate is around 3 percent; and real wages are rising at the rate of productivity growth. For the US, such a configuration of outcomes is associated with unemployment rates below 5 percent. That happened in 2007 and the late 1990s, and before that in the early 1970s, which shows how rare full employment has been and how far away it still is.

Sustained full employment is possible with policies that strengthen demand and wage formation, contain the trade deficit, and restrain financial market excess. The problem is Wall Street vigorously opposes an economy in which wages grow with productivity, profit margins are reduced, and the license of globalization and speculation is revoked. Consequently, Wall Street aims to short-circuit the possibility of sustained full employment by demanding the Federal Reserve enforce a 2 percent inflation target. This shows politics is the real obstacle to rehabilitating full employment, and it calls for a bright political spotlight on Federal Reserve appointments and policy actions to help check Wall Street's demands.

#### *II.A.2 Abandon the 2% inflation target*

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<sup>5</sup> Milton Friedman (1968) termed such frictional unemployment as "natural".

<sup>6</sup> This definition is attributable to Lord Beveridge, the architect of the British welfare state.

<sup>7</sup> Bivens (2014) shows that all of inflation in the period 2009 – 2014 can be explained by rising profit margins.



A second needed change of policy framework is to get the Fed to abandon its 2% inflation target. As argued above, a large multi-sector economy is likely to have higher than two percent inflation at true full employment because of differences in conditions across sectors. However, driven by the mistaken economics of Milton Friedman, the Federal Reserve has now adopted a two percent inflation target. That target creates a policy trap that will prevent full employment. In doing so, it will also undercut the possibility of future wage increases despite on-going productivity growth, and that promises to aggravate existing problems of income inequality.

The Fed's inflation target is analytically and tactically flawed. Analytically, its inflation target is too low and will inflict significant future economic harm. Tactically, at this time of global economic weakness, the Federal Reserve should be advocating policies that promote rising wages rather than focusing on inflation targets.

The two percent inflation target represents a cruel trap. As the unemployment rate comes down, the economy will inevitably bump against the Federal Reserve's new self-imposed inflation ceiling. That ceiling likely coincides with an unemployment rate of between five and six percent. Given its inflation target, the Federal Reserve will then have reason to pull the trigger and raise interest rates, thereby trapping millions in unemployment and ensuring continued wage stagnation.

There is little reason to believe a two percent inflation target is best for the economy. Those economists who claim it is are the same economists who should have been discredited by the financial crisis of 2008 and the economic stagnation that has followed. Instead, there are strong grounds for believing a higher inflation rate of three to five percent produces better outcomes by lowering the unemployment rate and creating labor market bargaining conditions that help connect wages to productivity growth.<sup>8</sup>

The Federal Reserve's two percent inflation target constitutes a backdoor way of forcing society to live with a "new normal" of permanent wage stagnation and unemployment far in excess of full employment. In effect, by adopting this target, the Fed has surreptitiously abandoned its legislated mandate to also pursue "maximum employment".

The Fed's adoption of a 2 percent inflation target has *de facto* redefined "price stability" as "inflation stability". Given that, its Humphrey-Hawkins mandate should be understood as the pursuit of maximum employment consistent with inflation stability. That mandate would be best fulfilled by pursuing a higher stable inflation rate of 3 percent or more. The current 2 percent inflation target shortchanges the maximum employment component of the mandate.

Unfortunately, the political and economic logic of the moment makes it difficult to challenge the Fed. First, inflation is now low so that the public's ear is not attuned to the threat of the two percent target. Second, in a period of wage stagnation, opposition to low inflation and support for higher future inflation can sound like support for higher prices. That is a misunderstanding. The opposition is to an excessively low inflation target that will permanently increase unemployment and prevent workers from bargaining a fair share of productivity growth.

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<sup>8</sup> Palley (2012) provides a theoretical explanation of why a 2 percent inflation target is an obstacle to maximum sustainable employment.

### *II.A.3 Stop the war on wages*

A third needed change of policy framework is to get the Fed to abandon its *de facto* war on wages, which is reflected in the Fed's abandonment of full employment and its adoption of a 2 percent inflation target. The war on wages rests on faulty understanding that portrays wages as just a cost to the economy, when the reality is wages are the principal purpose of the economy, which is to generate a decent standard of living for all.

Rising wages are also needed for the economy to function efficiently. That is a fundamental insight of Keynesian economics. Economies where wages lag productivity growth are marked by higher income inequality. They are also prone to demand shortage which causes economic stagnation as demand fails to keep pace with supply. That is the principal cause of the current economic malaise.

Wages can be too high and under-cut profit needed for investment and growth, but they can also be too low and undercut demand. The perennial challenge is to find the right balance, avoiding a profit-squeeze that undercuts investment and a wage-squeeze that undercuts consumer demand. Unfortunately, modern mainstream economics tends to treat wages as exclusively a cost. That treatment is reflected in textbook tendencies to oppose minimum wages and trade unions and to ignore the demand effects of income distribution.

It also finds expression in monetary policy paranoia about wage inflation. That policy paranoia threatens to make itself felt via the Federal Reserve's use of the employment cost index (ECI) as a favorite measure of inflationary pressure. Focusing on the ECI gives monetary policy an anti-wage tilt by encouraging the Fed to raise interest rates whenever wage growth accelerates.

The Fed's focus on the ECI is fundamentally wrong for two reasons. First, because the profit share is at a record high, it is possible wages can rise for quite a while without inflation if firms are forced to accept profit margin compression as the bargaining power pendulum swings back toward workers. And even if the process of income redistribution triggers marginally higher inflation because profit margin compression does not occur smoothly across industries, it is not cause for worry as a little bit of temporary inflation is good for a highly indebted economy.

Second, the ECI is significantly affected by rising worker health insurance costs. That means the Fed may implicitly let failures of the medical care system drive monetary policy, thereby allowing the failures of the medical care system to suppress employment and wages.

### *II.A.4 Resist the call for pre-emptive rate hikes to prevent inflation*

The Fed's existing policy framework (ignore full employment + 2% inflation target + rising wages are an inflationary threat) imposes an anti-worker bias. It also creates an imminent threat that the Fed will prematurely raise interest rates in a pre-emptive strike to head-off inflation, thereby undercutting the employment situation.

The push to raise interest rates is being driven by the inflation hawks, who have long-used the language of "pre-emptive" strike to justify their policy positions.<sup>9</sup> The reality is economists do

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<sup>9</sup> Monetary policy can be characterized in terms of "hawkish" and "dovish". Hawks are more concerned about inflation than unemployment, while doves are the reverse. As a group, the district Federal Reserve banks are more hawkish than the Board of Governors. In part, this reflects the interests of their ownership base. It also likely reflects the workings of the "capture theory of regulation" whereby the

not know when inflation will accelerate, but raising interest rates pre-emptively increases the likelihood that the economy will stop short of full employment. That will strangle wage growth, entrench income inequality, and impose hardship on millions of working families.

The late 1990s offer valuable lessons for today. Back then there were also calls to raise interest rates pre-emptively. Fortunately, then Federal Reserve Chairman Alan Greenspan adopted a “test the waters” approach to policy, allowing the economy to edge forward so that unemployment eventually fell below 4 percent. That inaugurated the strongest period of real wage growth over the past thirty years, and it was done with only modest increase in the core inflation rate which was 2.4 percent in 2000.

Now, the Federal Reserve confronts a similar choice between “pre-emptive inflation tightening” that sacrifices wage growth and full employment versus “testing the waters” that gives wage growth and full employment a chance. This choice is couched in the technicalities of monetary policy. However, those technicalities obscure a deeper choice, which is whether policy is going to continue the war on wages or whether policy will turn toward restoring shared prosperity by giving wage growth a chance.

#### *II.A.5 Do not under-estimate unemployment and labor market slack*

A second imminent threat is the Fed may under-estimate the degree of unemployment and labor market slack and use its under-estimate to justify raising interest rates. One danger is the Fed may underestimate labor market slack by ignoring the huge numbers of workers who have left the labor force because of lack of job prospects. This labor force exit is evident in the decline in the employment-to-population ratio. The percentage of Americans of working age with a job declined from 64.5 percent in June 2000, to 63.0 percent in June 2007, to just 59.0 percent in June 2014. Inflation hawks argue the decline is permanent and reflects retirements due to an aging population. According to them, that means the labor market is therefore tightening rapidly. However, that argument does not stand up to scrutiny because the reduction is similarly evident within the “prime age” population (25-54), within which 79.9% were employed in June 2007, but only 76.7% in June 2014. The fact that prime age workers are not employed shows the drop in employment-to-population ratio is mainly due to lack of jobs and not to retirement and demographic trends.

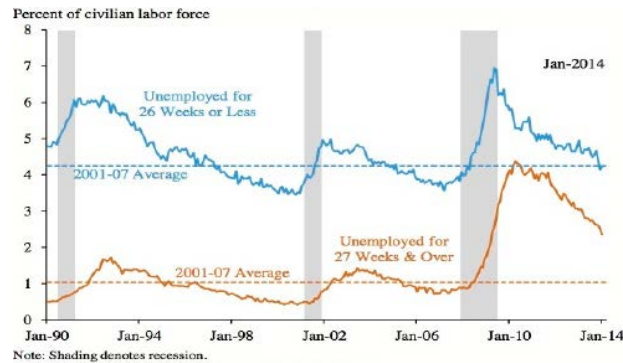
A second danger is that inflation hawks are arguing the increase in long-term unemployed is permanent and these are “damaged” workers that firms do not want to hire. Consequently, for purposes of interest rate policy and inflation control, hawks argue the Fed should view the long-term unemployed as a form of phantom unemployment that is irrelevant for monetary policy. This argument is captured in Figure 1 which is drawn from the 2014 Economic Report of the President. Figure 1 decomposes the unemployment rate into short-term (less than 26 weeks) and long-term (greater than 26 weeks). It shows how short-term unemployment has returned to the rate prevailing before the Great Recession of 2008-09, but long-term unemployment remains elevated. However, contrary to the hawk argument, the long-term unemployment rate has also been steadily coming down which shows these workers take jobs when they are available. The proper and sensible thing to do is continue with job-friendly monetary policy and see if the long-term unemployment continues coming down. That is the

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regulated (i.e. the private banks) end up capturing the regulators (the Federal Reserve district banks). Historically, the most hawkish banks have been Dallas, Kansas City, and Richmond. The most progressive banks are Boston and San Francisco. Minnesota used to be very hawkish but has recently become more dovish under its president, Narayana Kocherlakota. Philadelphia used to be middle-of-the-road but has recently become ultra-hawkish under the influence of its president, economist Charles Plosser.

logic of a “test the waters” approach. Raising interest rates without trying this would risk unnecessarily throwing away the opportunity for this good outcome.

**Figure 1.** Unemployment rate by duration, 1990-2014.



Source: Economic Report of the President, 2014, Figure 2-24.

## ***II.B Restore quantitative monetary policy***

Not only must the Federal Reserve change its policy framework, it must also change its policy toolbox. Today, monetary policy is largely viewed through the lens of setting interest rates. However, in the heyday of the Keynesian revolution in economic policy after World War II, monetary policy was also guided by quantitative policy such as margin requirements and reserve requirements. Those policy tools were discarded as part of the neoliberal takeover of economic policy, and it has made managing the economy more difficult. It is time to bring back quantitative monetary policy.

Interest rate policy is a blunderbuss that hits the whole economy, with particularly strong effects on employment which is bad for working families. Policymakers need other tools that can finely target particular problem areas without inflicting collateral damage on the rest of the economy.

One tool is margin requirements on stock market purchases financed with credit. Those requirements require borrowers back part of their borrowings with cash. The margin requirement has been set at 50 percent since 1974 and has not been changed since then. In the 1950s, 1960s, and early 1970s margin requirements were varied often as part of tamping down stock market speculation that contributed to economic destabilization. Such speculative destabilization has been a recurrent theme of the past thirty years and it is time to restore active use of margin requirements.

Not only does excessive stock market speculation have adverse macroeconomic effects, it also makes it hard for working families to plan for retirement. Over the last 30 years, policymakers have encouraged the replacement of old-style defined benefit retirement plans by new-style defined contribution plans (i.e IRAs and 401Ks). A volatile speculative stock market turns retirement into a lottery as working families risk over-paying for stocks in booms and then selling under financial distress in slumps. Using margin requirements to tamp down speculation that drives up equity prices is therefore good for the macro economy, and it is also good for the retirement system by smoothing equity prices.

Even more than reviving stock market margin requirements as a policy tool, there is need to add policy tools that stabilize the economy by targeting particular areas of imbalance. As mentioned above, interest rates are a blunderbuss. They are a good tool when the entire economy needs to be stimulated or restrained. However, when there are problems in a particular sector (e.g. housing or financial markets), using interest rates to address those problems can be very damaging to the rest of the economy.

Repeated stock market boom – bust cycles have prompted policymakers to look to reform the financial system to avoid future crises, but they remain fixated on capital standards because that is what is already in place. There is a better way to regulate financial markets through asset based reserve requirements (ABRR), which consists of extending margin requirements to a wide array of assets held by financial institutions. ABRR require financial firms to hold reserves against different classes of assets, with the Federal Reserve setting adjustable reserve requirements on the basis of its concerns with each asset class.<sup>10</sup>

A system of ABRR would confer many benefits, including:

- (1) It would provide a much needed new set of policy instruments that can target specific financial market excess, leaving interest rate policy free to manage the overall macroeconomic situation. That will increase the efficacy of monetary policy by enabling the Federal Reserve to target sector imbalances without recourse to the blunderbuss of interest rate increases. If the Fed is concerned about a particular type of asset bubble generating excessive risk exposure, it can impose reserve requirements on that specific asset without damaging the rest of the economy.
- (2) It would help prevent asset bubbles. By requiring financial firms to retain some of their funds as non-interest-bearing deposits with the Fed, policymakers can affect relative returns on different categories of financial assets. If policymakers want to deflate a particular asset category they can impose higher reserve requirements on that category, thereby reducing its returns and prompting financial investors and firms to shift funds out of that asset into other relatively more profitable asset categories.
- (3) If the Federal Reserve wants to prevent a house price bubble it can impose higher reserve requirements on new mortgage lending, thereby raising the cost of mortgages without raising interest rates the would hurt investment and also hurt manufacturing by appreciating the exchange rate.
- (4) ABRR provide a policy tool that can encourage public purpose investments such as inner city revitalization or environmental protection by setting low (or no) reserve requirements on such investments.

ABRR also offer an efficient cost-effective way to normalize monetary policy after quantitative easing (QE). In the past, the Fed controlled interest rates by increasing and reducing the market supply of liquidity. As a result of QE, banks now have huge excess holdings of liquidity. In future, the Fed plans to increase market interest rates by paying interest to banks on liquidity they deposit with the Fed. I (Palley, 2014) have criticized that policy proposal as unnecessarily rewarding banks for a crisis they helped create, and it is also costly for the federal budget because it will reduce the Fed's profit paid to the Treasury. An alternative strategy to deactivate banks' excess liquidity is to make them hold it by imposing ABRR.

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<sup>10</sup> To read more about ABRR in simple layman's terms see Palley (2000, 2003, 2009).

The big take-away is that quantitative monetary policy is effective and useful. However, it has been discarded because of neoliberal ideology that has captured economics and economic policy.

### ***II.C Financial regulation that promotes shared prosperity***

Quantitative monetary policy is a first cousin to regulation in that it adjusts the rules of the game in response to changing economic circumstances. In addition, systemic regulation is needed to limit the monopoly power of big finance and to ensure the efficiency and stability of the financial system. The Federal Reserve has always had an important regulatory role and that role has been increased by the Dodd – Frank Act (2010).

In the wake of the financial crisis of 2008, the banking system has become even more concentrated and dominated by the top ten banks. That means there is a permanent role for lobbying the Federal Reserve to ensure that it promotes and enforces worker-family friendly regulation that combats monopoly tendencies in banking. The Fed also needs to limit “too-big-to-fail” risks and subsidies that come from large banks being so big they know they can take extra risk because they will always be bailed out. Lastly, the Dodd-Frank Act established new law limiting speculative activity by banks and requiring that banks support their activities with appropriate levels of capital, but making real on these laws requires tough regulatory rule writing by regulators, including the Federal Reserve.

### ***II.D The Fed and exchange rate policy***

Exchange rate policy is another area where change is needed. The rate at which the dollar exchanges for foreign currencies is one of the most important economic variables. It impacts the international competitiveness of US industry which affects the trade deficit, manufacturing employment and corporate decisions about whether to invest in the US or offshore. The Fed’s policies have an enormous impact on the exchange rate. For instance, higher interest rates make the dollar relatively more attractive to investors, which can appreciate the exchange rate. In this fashion, the Fed affects the trade deficit and the health of manufacturing.

Exchange rate policy is formally under the jurisdiction of the Treasury. That standing has been used to deflect engagement with the Fed on this critical issue, despite the fact that the Treasury uses the Fed to implement exchange rate policy. Moreover, the Fed has to take account of the exchange rate in its policy deliberations since exchange rates have such a huge impact on the economy and the Fed’s decision-making environment.

From the standpoint of promoting full employment, for the last twenty years the Treasury has done an awful job with exchange rate policy. That has been even truer under Democratic administrations. This policy failure reflects the fact that the Treasury is totally captured by Wall Street and Big Business. Consequently, it has been willing to accept (and even promote) an over-valued dollar that costs jobs because Wall Street and Big Business both profit from off-shoring investment and outsourcing.

It is time to expose the Kabuki theatre that allows the pretense that the Fed, the Treasury and exchange rates are unconnected. Exchange rates and interest rates are joined at the hip and policy should be properly coordinated. In light of the failure of exchange rate policy, Congress should consider stripping the Treasury of its exchange rate responsibility and moving that responsibility to the Fed with accompanying strict Congressional accountability rules.



## ***II.E The Fed, budget deficits and Social Security solvency***

The effect of the Fed on exchange rates is one unspoken feature of Fed policy. Another is the effect of the Fed on the budget deficit and Social Security solvency. The Fed adversely affects the budget deficit in two ways. First, higher interest rates reduce employment, which in turn reduces tax revenues and increases the budget deficit.<sup>11</sup> Second, higher interest rates increase interest payment obligations on the national debt. Thus, a major contributor to the increase in the national debt in the 1980s was the high interest policy implemented by then Federal Reserve Chairman Paul Volcker. Third, higher interest payment obligations pre-commit budget revenues, creating budget deficit problems that are then politically exploited to attack government as irresponsible and also to justify cutting spending which benefits working families. These fiscal effects provide further reason for keeping interest rates low.

The economist Dean Baker (2014) has also argued higher interest rates undermine the solvency of Social Security. That is because Social Security is funded via payroll tax revenues on which higher interest rates have two negative impacts. First, higher interest rates lower employment. Second, lower employment lowers wages. The net result is payrolls are smaller, meaning less payroll tax revenue for Social Security.

This impact on the federal budget and Social Security, via interest rates, reveals yet another side to the importance of the Federal Reserve. It also provides another clear reason why Congress should be concerned about the Federal Reserve.

## ***II.F Reverse the biased use of the Fed's bully pulpit***

A final area where change is needed concerns the biased use of the Fed's bully pulpit. In addition to setting monetary policy and regulating the financial system, the Fed has an enormous influence on overall economic policy by shaping and coordinating elite economic policy understanding and opinion. This influence works through the Federal Reserve's enormous research activities; high-profile economic conferences and publications; communications with the business community and media; and policy speeches given by the Federal Reserve chairperson and board of governors. These activities shape and legitimize understandings of the economy that in turn drive policy. For the last thirty years, the Fed's bully pulpit has been enlisted to serve the neoliberal economic policy agenda. It is time to challenge and reverse that.

## **III. Institutional architecture**

The previous sections have explored why the Federal Reserve is so important, and why and how its policy framework and tools should change. This last section describes the institutional architecture of the Federal Reserve, which also impacts policy outcomes.

The Federal Reserve was created in 1913 by the Federal Reserve Act. Its original purpose was to ensure the soundness and stability of the banking system, thereby contributing to overall economic stability and avoiding financial crises. In many ways, that remains its preeminent purpose, but its functions have also evolved and expanded to include a) the

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<sup>11</sup> Lower employment may also increase the deficit by increasing federal spending on welfare payments for distressed households.



conduct of monetary policy that includes management of interest rates; b) regulation of both the banking system and the broader financial system; c) management of the payments system; and d) serving as the government's fiscal agent and banker. These functions lie at the base of the Fed's enormous economic power.<sup>12</sup>

### ***III.A Political architecture***

The Federal Reserve is a unique hybrid institution. It is unlike central banks in other countries which are government owned and controlled. Instead, reflecting the political characteristics of 1913, it is a hybrid structure that embeds:

- private v. public interests
- regional v. national interests

Formally, little of that architecture has changed since 1913. However, in practice, power has shifted away from private/regional interests toward the public/national interest. That said, private/regional interests remain strong, which means the Federal Reserve is not a level playing field and policy input and deliberations are biased in favor of selective private interests.

One day, it may be possible to modernize the Federal Reserve's architecture and bring it up to a level consonant with the ideals of a modern 21<sup>st</sup> century democracy. However, at the moment that is a not a realistic political objective as those powerful private interests would be against reform, and nor is the American public sufficiently knowledgeable or unified about the problem and its solution. Instead, for the time being, effort is best directed at influencing Federal Reserve monetary and regulatory policy and strengthening working family-friendly representation within the Fed.

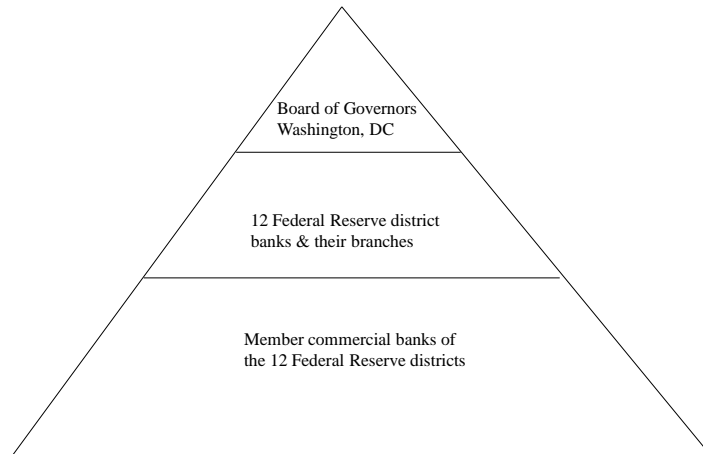
### ***III.B Geographic architecture***

Just as the US Senate was designed to represent regional interests, so too was the Federal Reserve. The Board of Governors in Washington, DC constitutes the Federal Reserve's headquarters and its most important and powerful component. The rest of the country is divided into 12 geographic districts, each of which has its own Federal Reserve bank. There are also subsidiary Federal Reserve branch banks within the districts that report to the Federal Reserve district bank. Private commercial banks within each district can become members of the Federal Reserve by acquiring a federal banking charter and buying an ownership share in their district Federal Reserve Bank. This core structure is illustrated in Figure 2.

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<sup>12</sup> The Federal Reserve's website (<http://www.federalreserve.gov/>) contains a wealth of information about the Fed, its institutional structure, functions and policy tools.

**Figure 2.** The core elements of the Federal Reserve system.



The structure of regional interests is shown in the map shown in Figure 2, and Table 1 provides further details about the district bank – branch structure. New York is preeminent among the 12 district banks because financial markets are centered there, and the trading desk at the New York bank implements the monetary policy instructions (re managing interest rates via buying and selling financial paper) that come from the Board of Governors in Washington, DC. Inspection of the map in Figure 3 shows the Federal Reserve’s geographical architecture matches the structure of the late 19<sup>th</sup> century railroad economy. District banks are concentrated in the northeast which was the industrialized and most densely populated part of the country at that time. The 12<sup>th</sup> district bank (San Francisco) covers an enormous chunk of territory because the west at that time was undeveloped and sparsely populated.

**Figure 3.** Federal Reserve Map

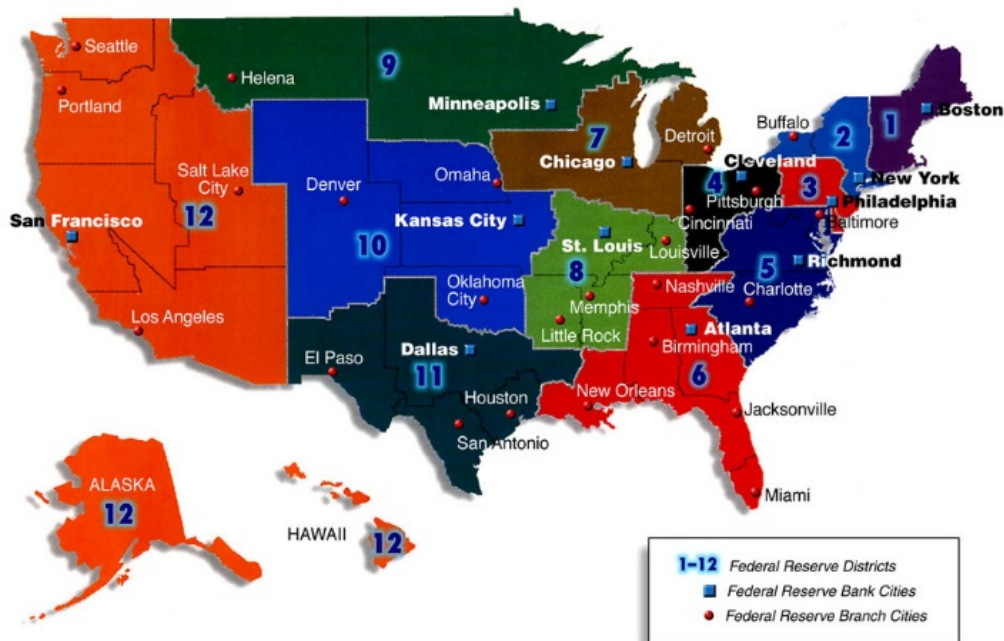


Table 1. Federal Reserve district banks and branches.

District number	District letter	District bank	District branches
1	A	Boston	
2	B	New York	
3	C	Philadelphia	
4	D	Cleveland	Cincinnati (OH), Pittsburgh (PA)
5	E	Richmond	Baltimore (MD), Charlotte (NC)
6	F	Atlanta	Birmingham (AL), Jacksonville (FL), Miami (FL), Nashville (TN), New Orleans (LA)
7	G	Chicago	Detroit (MI)
8	H	St. Louis	Little Rock (AK), Louisville (KY), Memphis (TN)
9	I	Minneapolis	Helena (MT)
10	J	Kansas City	Denver (CO), Oklahoma City (OK), Omaha (NE)
11	K	Dallas	El Paso (TX), Houston (TX), San Antonio (TX)
12	L	San Francisco	Los Angeles (CA), Portland (OR), Salt Lake City (UT), Seattle (WA)

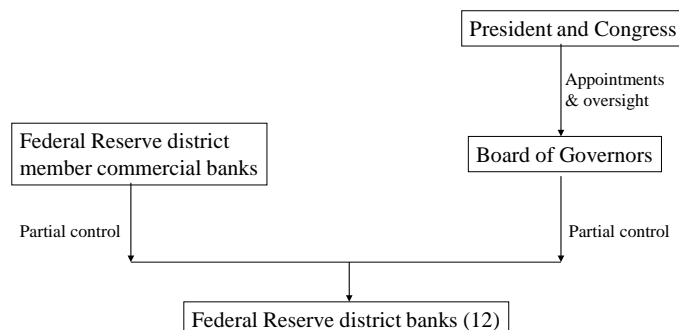
An important historical role of the branch banks was to quickly deliver supplies of cash. Geographically large districts, like the 12<sup>th</sup>, therefore have several branches. This framework is clearly antiquated and there is no need for it given current monetary and economic information gathering technology. The system could easily be modernized by closing both district banks and branches without any efficiency loss. However, the politics of closure would be similar to closure of military bases. District banks and branches have strong regional political defenders who want to retain the prestige, the voice, and the jobs that go with having a Federal Reserve presence.

### ***III.C Ownership and control architecture***

Whereas the Fed's geographic architecture reflects the balance between regional and national interests, its ownership and control architecture reflects the balance between private and public interests. The ownership architecture has member commercial banks of each district owning 100 percent of the paid-up capital of each district bank, on which they receive 6 percent interest per year. Profits earned by the Federal Reserve, after payment of interest to member banks, are paid to the US Treasury. This ownership structure gives private banks significant control rights over the Federal Reserve district banks.

Figure 4 provides a simplified description of the Federal Reserve's control structure and shows how it incorporates both private and public interests. The private interest operates through the member commercial banks who are the stock owners of the Federal Reserve district banks. The members have significant partial control over the district banks, which gives them power to influence the policy deliberations and actions of the district bank, and thereby influence the Federal Reserve's policies. The public interest operates through the Board of Governors which also has partial control over the Federal Reserve district banks, and the Board of Governors is in turn subject to controls by Congress and the President.

**Figure 4.** A simplified representation of the Federal Reserve's control structure.



The seven members of the Board of Governors (BOG) are appointed by the President, subject to confirmation by the Senate. The Chair is the most important figure, having great convening and agenda setting power and also being the tie-breaker vote. The Fed's governance culture is also one of consensus, which means the impulse is to support the Chair unless disagreement is significant. This consensus culture is very important and provides a channel for district banks to exert major policy influence (about which more later).

The Chair's appointment is for 4 years, while the other governors are appointed for 14 year terms that are sequenced so that every two years one governor is up for reappointment. If a governorship becomes open mid-term, replacements are appointed to serve the remainder of the term. Lobbying the Administration and the Senate regarding appointment of suitable governors is a critical channel for influencing the Fed.

Additionally, the Federal Reserve is answerable to the Full Employment and Balanced Growth Act (1978), also known as the Humphrey-Hawkins Act, which requires the Fed to strive for full employment, growth in production, price stability, and balance of trade and budget. In practice, attention focuses on the employment and price stability mandates, especially since the balance of trade and budget are much more under the control of the Treasury. As part of that mandate, the Fed Chair gives biannual testimony to the House and Senate in Humphrey – Hawkins hearings. Those hearings put the Fed in the public spotlight and, working with the appropriate Congressional Committee members, provide an opportunity to influence Fed policy and to shape the national economic policy conversation.

Figure 5 provides a detailed description of the control architecture of the Federal Reserve district banks, which are under the combined control of their shareholders (member commercial banks) and the Board of Governors (BOG). Each district bank has a hybrid private – public corporate structure. As the shareholders, member commercial banks have control rights: as representative of the public interest, the BOG also has control rights.

**Figure 5.** Detailed control architecture of Federal Reserve district banks.

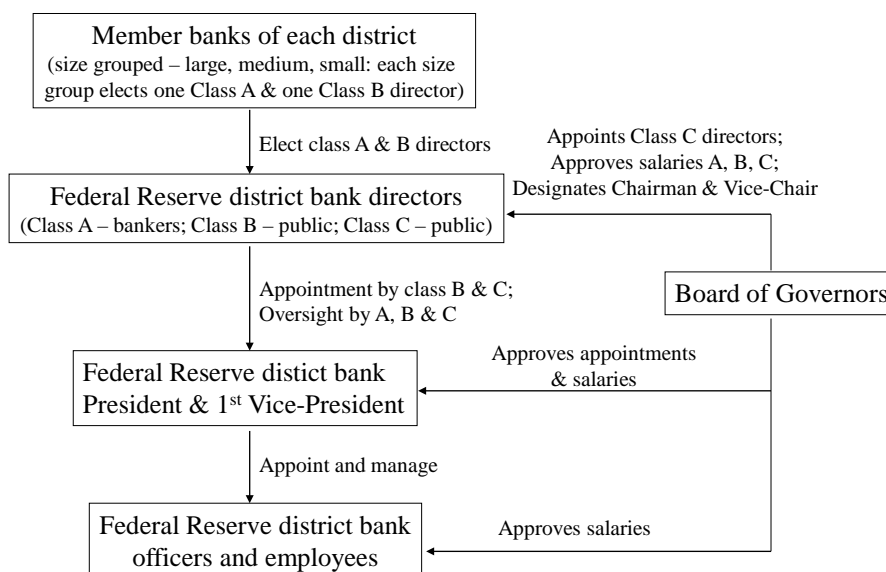


Figure 5 describes the main control structure, but a few additional comments are in order. First, member commercial banks directly exercise their influence over Federal Reserve district banks via election of the three class A and three class B directors for each district bank: class A directors are drawn from the banking community, while class B directors are drawn from the wider business and non-profit community. Second, as a result of reforms under the Dodd-Frank Act (2010), only Class B and C directors participate in the selection of district bank president, but all three classes of directors participate in oversight of the district banks. The Dodd-Frank restriction was introduced because district bank Presidents are closely engaged in monetary policy and having Class A director involvement in the selection process would raise conflict of interest concerns. Third, the BOG has power over each district bank via its appointment of three Class C directors and via its designation of which directors serve as Chair and Vice-Chair of the district bank’s board. It also has power via the requirement that it approve persons selected by the district bank’s B and C directors to be President and First Vice-President.<sup>13</sup>

The selection of district bank Presidents is important for several reasons. First, as discussed below, district bank Presidents provide direct and important input into the Federal Reserve’s monetary and regulatory policy. Second, district bank presidents have their own significant bully pulpit that has both regional and national reach. Speeches by district bank Presidents get significant attention in both regional and national media, which enables them to influence the national policy debate. Third, the district Federal Reserve banks are significant sponsors of economic research that influences policy debate and economic understanding, and the character of that research is influenced by who controls the district banks. In this regard, the district banks employ large staffs of professional economists who influence economics and the economic policy debate via their research activities. Subsequently, staff may use the status acquired by working for the Federal Reserve to move to important positions in

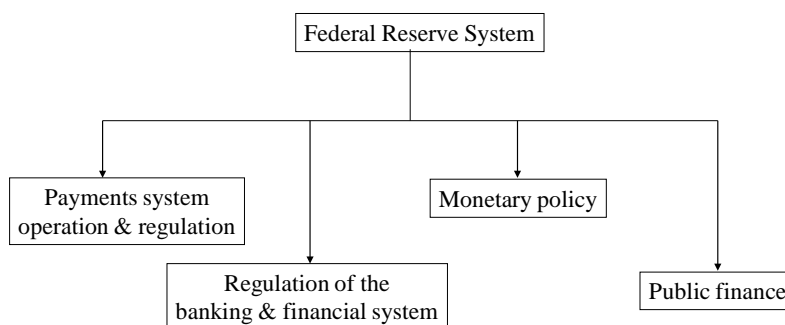
<sup>13</sup> Further details are available at <http://www.federalreserve.gov/pubs/frseries/frseri4.htm>

business, the academy, the think-tank world, and government. The district banks also hire academics on sabbatical and sponsor policy conferences, such as the world famous annual Jackson Hole conference sponsored by the Kansas City Federal Reserve. These activities promote and legitimize particular policy perspectives, while delegitimizing and obstructing others.

### ***III.D Functions and policymaking architecture***

The previous sections have described the geographic and ownership and control architecture of the Federal Reserve. That architecture is important for understanding how the system works, the sources of influence within the system, and how to engage the system. This section turns to the policymaking architecture, with a focus on regulation and monetary policy. Figure 6 shows the Federal Reserve's major functions.

**Figure 6.** The Federal Reserve's major functions.



#### ***III.D.1 The payments system***

The first major function in Figure 6 is the management and supervision of the payments system which is an essential piece of financial infrastructure. The twelve district banks provide banking services to depository institutions and the federal government. For the depository institutions, including those that are not members of the Federal Reserve, the district banks maintain accounts for reserve and clearing balances and provide various payment services including collecting checks, electronically transferring funds and distributing and receiving currency and coin. Users are charged a fee for provision of these services that covers the cost of provision.

Under the supervision of the Board of Governors, the twelve district banks operate two key payment and settlement systems, the Fedwire Funds Service and the Fedwire Securities Service. Additionally, the Federal Reserve is the prudential supervisor of the major privately organized payment, clearing, and settlement arrangements.

#### ***III.D.2 Regulation***

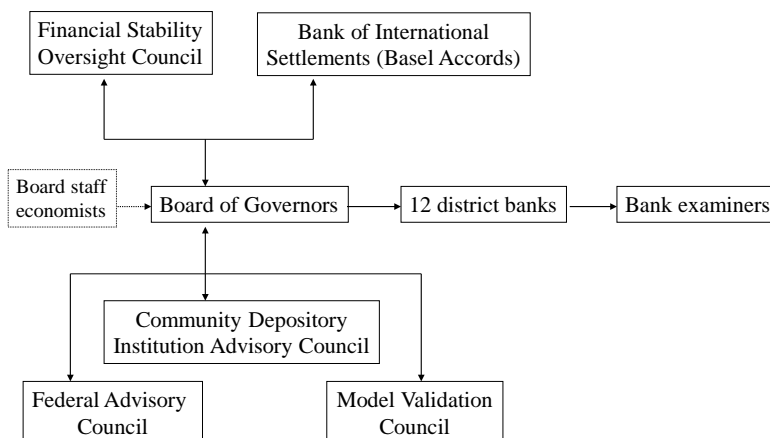
Ensuring a sound and stable payments system requires that the system's participants be financially sound and stable. That connects to the Federal Reserve's second major function of regulation aimed at ensuring the stability and soundness of the banking and financial system.

Much regulation is the product of Congressional legislation, and the Federal Reserve plays an important role shaping regulatory legislation. However, even more important, is its role in implementing regulatory legislation. That implementation role introduces enormous discretion in terms of writing regulatory rules, standard setting, and enforcement action. Furthermore, in the wake of the financial crisis and the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) that it spawned, regulation has become even more important and the Federal Reserve's role and powers as financial regulator have increased.

Given the enormous impact and significance of regulation and the regulatory role of the Fed, it is vital that working family interests are represented in regulatory deliberations. That is a difficult task owing to the technical nature of the issues. It can be done by lobbying with regard to specific regulatory issues, and by ensuring appointment of appropriate people (Governors and Class C directors) within the Federal Reserve. Such appointments can create space for representation of different points of view. They can also help counter the proclivity for the regulatory process to be captured by those who are supposed to be regulated (i.e. for banks to gain undue influence within the Federal Reserve).

Figure 7 provides a schematic outline of the architecture of the Federal Reserve's regulatory apparatus. The Board of Governors is responsible for regulatory policy and regulation is overseen via bank examiners employed by the twelve district banks. The Board of Governors is advised by the Federal Advisory Council (FAC), the Community Depository Institutions Advisory Council (CDIAC), and the Model Validation Council (MVC). The FAC is a statutory body and consists of 12 private sector bankers, drawn from the twelve districts and each nominated by the respective district bank. The CDIAC is a non-statutory body that was established in 2010 and advises the Board re concerns of community depository institutions. The MVC was established in 2012 and advises regarding the effectiveness of technical models used in financial stress testing of banks.

**Figure 7.** Schematic outline of the Federal Reserve system's regulatory architecture.



The Financial Stability Oversight Council (FSOC) is a consultative body established by the Dodd-Frank Act (2010) and chaired by the Treasury Secretary. The Chair of the Federal Reserve is a member of the Council, and the Council's purpose is to coordinate regulatory activities and duties across different regulatory agencies. These different agencies include the Federal Deposit Insurance Corporation (FDIC), the Office of the Comptroller of the Currency



(OCC), the Securities and Exchange Commission (SEC), the Commodities Futures Trading Commission (CFTC), the Federal Housing Finance Authority (FHFA), the National Credit Union Administration (NCUA), and the Consumer Financial Protection Bureau (CFPB). All are represented on FSOC.

The Federal Reserve also has regulatory obligations and requirements established through international agreements such as the Basel Accords that are coordinated through the Bank of International Settlements (BIS) that is based in Basel Switzerland. These international regulations are becoming increasingly important owing to globalization of financial markets that links US and foreign financial markets. In this new environment the stability and soundness of the domestic financial system increasingly depends on the stability and soundness of foreign financial systems. That increases the need for international accords on financial regulation.

Lastly, an invisible channel of influence comes from the advice of staff economists to the Board of Governors. Policy advice given depends on one's belief. For the past thirty years, the economics profession has drifted against regulation and in favor of so-called "free markets". That intellectual drift, often characterized as a shift to "neoliberalism", has undoubtedly impacted the thinking of the staff and, thereby, impacted the Fed's regulatory stance and actions.

The effects of regulatory capture and intellectual drift are evident in the history of consumer financial protection. Previously, the Federal Reserve had considerable responsibility for such protection and the Board of Governors used to be advised by a Consumer Advisory Council that was shuttered in 2011. Those consumer protection duties were stripped away by the Dodd-Frank Act (2010) and relocated in the new Consumer Financial Protection Bureau. The reason was that Congress thought the Fed had not paid adequate heed to consumer issues prior to crisis, thereby contributing to the sub-prime mortgage crisis. The reason for this lack of heed seems to have been a combination of regulatory capture plus relative disinterest by the staff who were more concerned with other high profile policy issues, particularly monetary policy.

### *III.D.3 Monetary policy*

Monetary policy refers to actions undertaken by the Federal Reserve to influence the availability and cost of finance to promote national economic goals such as employment, economic growth, and control of inflation. Broadly speaking, monetary policy works by setting the interest rate that banks must pay for short-term finance. That interest rate is at the base of the financial system, and it in turn influences asset prices and the price of credit to the rest of the economy which influences the general level of economic activity and employment.

The main instruments of monetary policy are the discount rate, reserve requirements, margin requirements, the federal funds interest rate target, and open market and quantitative easing (QE) operations.<sup>14</sup> The discount rate is the interest rate at which the Federal Reserve lends liquidity (reserves) to member commercial banks. Reserve requirements are reserves that banks must hold against demand deposits (i.e. checking accounts). The technical operation

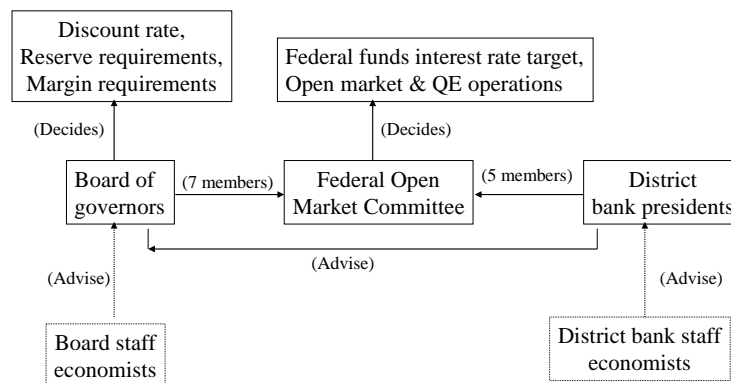
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<sup>14</sup> QE is an unconventional monetary policy used by central banks when standard monetary policy has become ineffective because the central bank's short-term policy nominal interest rate is at or near zero and cannot be lowered further to stimulate economic activity. It involves the central bank buying financial assets (like mortgage backed securities and collateralized debt obligations) from commercial banks and other financial institutions, and thereby increasing financial asset prices and the supply of Federal Reserve money (the monetary base).

of these instruments of monetary policy is not of concern for this guide. What is important is who decides how those instruments are deployed and in whose interest are they deployed.

Figure 8 shows the schematic architecture of monetary policy decision making. It helps shed light on several important aspects of monetary policy decision-making, particularly regarding sources of systemic policy bias. First, interest rate policy is set by the Federal Open Market Committee (FOMC), which consists of twelve members; the seven members of the board of governors plus five district bank presidents. The New York Federal Reserve Bank president has a permanent seat; the presidents of the Chicago and Cleveland Federal Reserve Banks also have a seat that alternates annually between them; and the remaining three seats rotate annually among the other nine banks which are divided into three groups of three. However, even though the formal voting power of the district bank presidents is limited, all twelve district bank presidents participate in FOMC meetings and have “voice”. This enables them to influence interest rate policy. Moreover, that influence is formidable because the Federal Reserve prides itself on consensus decision making. Since district bank presidents have historically been more pro-business and pro-finance (reflecting who elects them), this gives a meaningful invisible anti-working family tilt to the process governing interest rate policy decision making. This pro-finance pro-business attitude shows up in “hawkish” attitudes towards inflation.

**Figure 8.** Schematic outline of the Federal Reserve system’s monetary policy architecture.



Second, over the last three decades the focus of monetary policy has shifted almost exclusively to managing interest rates, and quantitative monetary policy (reserve and margin requirements) has been essentially abandoned. That shift reflects the adverse impact of changed thinking among economists, who have discarded these valuable policy tools. As discussed earlier, reversing that policy shift is a major challenge.

Third, economists play a very significant role in making monetary policy via the behind-the-scenes advice staff give the Board of Governors and the district bank presidents. Furthermore, the Federal Reserve chairperson, many governors, and many district bank presidents may be economists. Over the last three decades, the economics profession has become significantly more neoliberal in outlook. The combination of this drift and economists’ influence within the Federal Reserve has contributed a significant anti-working family taint to

monetary policy. That impact is evident in beliefs that deny the impact of monetary policy on employment, economic growth, and wages; beliefs that heavily emphasize the dangers of and damage from inflation; and beliefs that deny the merits of quantitative monetary policy and the need for quantitative regulation to ensure financial stability. Lastly, as a group, neoliberal economists have exhibited strong proclivities to exclusionary groupthink. That has contributed to preventing alternative economic points of view getting a hearing within the Federal Reserve's policymaking process.

#### *III.D.4 Public finance and the Fed*

A fourth important function of the Federal Reserve concerns public finance and the Fed's role as fiscal agent for the federal government. In effect, the Fed is the government's banker and tax revenues are paid into the Treasury's account that is maintained with the Federal Reserve. The Treasury also makes payments that are drawn against that account.

This special relationship between the federal government and the Fed gives a unique degree of financial freedom to the federal government that is not available to ordinary households. Given Congressional budget authorization, if the federal government writes a check the Federal Reserve can, in principle, issue money to cover the check. That facility is not available to ordinary households and it is one reason why the federal government is not like ordinary households, despite frequently asserted and mistaken claims that both are bound by the same budget arithmetic.<sup>15</sup>

Historically, the Federal Reserve has used its power to create money to help finance the federal government. It has done so by buying government bonds. Such purchases also lower longer term market interest rates which are, in part, priced off of the interest rate on government bonds. Expanding this public finance role of the Fed is an important way in which the Fed's power can be harnessed to promote shared prosperity.

During the Great Recession the Fed expanded the reach of its financing activities to include the housing sector via purchases of mortgage backed securities issued by the Federal National Mortgage Association (FNMA or Fannie Mae). This use of the Fed's financing power to bring down the cost of housing finance should now become a permanent stand-alone aspect of Federal Reserve policy.

Furthermore, the Fed should be permitted to assist with the financing of public infrastructure investment. This would raise growth by relaxing the financing constraint that currently unduly restricts such investment. The Fed appears to have statutory authority to assist with state and local government financing but it has not acted on this for a combination of political reasons and lack of suitable intervention mechanisms. One possibility for remedying this is creation of a national infrastructure bank whose bonds the Fed could purchase. A second possibility is that a new federal agency, similar to Fannie Mae, could be created to securitize state and local government infrastructure bonds, and the Fed could then buy those securitized bonds.

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<sup>15</sup> Two other reasons why government is different are that the government can raise taxes to cover its income shortfall, and government also lives forever. The political party in power may change, but the government continues uninterrupted so that its debts retain legal validity and can be repaid via future taxes, future borrowing, or future money issue. That is not true of individuals whose debts must be paid out of lifetime income and wealth.

#### **IV. Conclusion: shared prosperity is doubtful without the Fed**

The Federal Reserve is a hugely powerful institution whose policies ramify with enormous effect throughout economy. Its impact is evident in the long list of policy challenges and threats which implicate almost every important aspect of the economy. It is doubtful the US can achieve shared prosperity without the policy cooperation of the Fed.

The Fed suffers from a proclivity to anti-working family bias. That bias reflects both the specific hard-wired institutional characteristics of the Fed and the political characteristics of the time. With regard to institutional characteristics, the Fed's legal set-up means it is significantly influenced by the banking industry, and it is also prone to regulatory capture by the banks which it is supposed to regulate. With regard to the politics of the time, the neoliberal capture of the economics profession and society's understanding of the economy imparts an intellectual bias to the views of policymakers and the advice of the Federal Reserve's economic staff.

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# Still about oil?

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## Abstract

During the late 1980s and early 1990s, we identified a new Middle East phenomenon that we called 'energy conflicts' and argued that these conflicts were intimately linked with the global processes of capital accumulation. This paper outlines the theoretical framework we have developed over the years and brings our empirical research up to date. It shows that the key stylized patterns we discovered more than twenty years ago – along with other regularities we have uncovered since then – remain pretty much unchanged: (1) conflict in the region continues to correlate tightly with the differential profits of the Weapondollar-Petrodollar Coalition, particularly the oil companies; (2) dominant capital continues to depend on stagflation to substitute for declining corporate amalgamation; and (3) capitalists the world over now need inflation to offset the spectre of debt deflation. The convergence of these interests bodes ill for the Middle East and beyond: all of these groups stand to benefit from higher oil prices, and oil prices rarely if ever rise without there being an energy conflict in the Middle East.

## 1. The triangle of conflict

Analyses of modern Middle East conflicts vary greatly. They range from sweeping regional histories to narratives of individual disputes. They draw on various analytical frameworks and reflect different ideological standpoints. They rely on realism to emphasize state interests, alignments and conflicts, on liberalism to accentuate markets, trade and interest groups, on Marxism to stress exploitation, dependency and imperialism, and on postism to transform both the conflicts and their causes into a cultural-ethnic-racist collage of deconstructible 'texts'. They use these views, opinions and dogmas to critique and condemn, rationalize and moralize, predict and strategize.

Underlying this great variety, however, lies a simple triangular scheme. Regardless of their particular theoretical foci and ideological bent, all analyses seem to derive from and accentuate one or more of the following themes: (1) outside intervention, (2) culture and internal politics and (3) scarcity.

*Outside intervention.* Analysts of international relations tend to divide the history of foreign intervention in the region into four broad eras: (i) the period up till the Second World War, (ii) the post-war stretch till the collapse of the Soviet Union, (iii) the era of neoliberal globalization till the recent financial crisis and (iv) the new period of growing multipolarity. Foreign meddling in the Middle East is said to have intensified during the nineteenth century. With the decline of Ottoman rule and the rise of European imperialism, direct colonial takeovers carved up the region among the leading European powers. This division ended after the Second World War. Colonialism disintegrated, and with superpower confrontation substituting for inter-imperial struggles, proxy conflicts replaced the need for direct occupation. The 1990s collapse of the Soviet Union again shuffled the cards. The previously bipolar world was rendered unipolar, and

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this unipolarity, argue the pundits, enabled the United States to launch an aggressive regime-changing campaign to promote democracy and make the Middle safe for business. But this era too seems to be drawing to a close. The United States is not what it used to be. Its chronic current account deficit, mounting debt, sliding dollar and recent financial crisis, along with its failed military interventions, have given rise to mounting challenges from China, India and the new Russia, among others countries, as well as from armed NGOs in various parts of the world. These centrifugal forces create peripheral vacuums, including in the Middle East, which local mini-powers such as Iran and Turkey and militias like ISIS and Hezbollah jockey to fill.

*Culture and internal politics.* The issue here is the bellicose consequences of the region's tribal traditions, ethnic differences and religious hostilities – as well as the ways in which these cultural-political traits differ from those in other, mainly Western societies. Oriental pundits, analysts and deconstructivists examine how cultural incompatibilities breed conflict within the Middle East, as well as a broader 'clash of civilizations', particularly between Islam and the West. Some claim that the region's cultural-political bellicosities are deeply ingrained and therefore difficult to change, while others see them as malleable attributes that can be smothered or nourished depending on circumstances and expediency.

*Scarcity.* This subject is handled more or less exclusively by economists. The main focus here is water, which the region is short on, and oil, of which it has plenty. In the short term, say the economists, the overall supply of both water and oil can be taken as given, so the ups and downs of their scarcity depend mostly on variations in demand. In the case of water, the demand originates within the Middle East itself – particular in arid or heavily populated areas – so water-related conflicts are mostly regional in nature. By contrast, the demand for oil is generated largely outside the region, so oil-related conflicts tend to have an important global dimension. In the long-run, though, supply too is changing. The main emphasis here is on global warming, which dries up the region, and Peak Oil, which is bound to reduce its petroleum output. Anticipations of these supply-driven scarcities, many now claim, have already heightened resource-related tensions in the region and are sure to intensify its conflicts and wars.

Of course, the three nodes of this conceptual triangle, although analytically distinct, are rarely treated in isolation. On the contrary. Typically, the analyst collects a few 'factors' from each node, tucking them all into a single 'production function' in order to generate a hopefully richer, more complex discourse. This fusion is evident in current explanations of the third Gulf War. ISIS's media blitzes – and the counter-campaigns of its opponents – emphasize the religious basis of the conflict. But culture is only part of the picture. Having already captured oil-producing regions and facilities, ISIS openly boasts of its intention to take over those of Iraq, Saudi Arabia and others. And with human rights and the flow of oil under threat, there is a good enough reason for a U.S.-led coalition to launch yet another military intervention in the Middle East.

## **2. Scarcity and the price of oil**

Now, a vigilant reader might protest that this triangular classification is fatally incomplete. It is certainly important to speak about international relations, culture, politics and scarcity, she would point out. But what about capital? Doesn't capitalism rule our world and shape its important trajectories? And if that is the case, why is the connection between Middle East wars and accumulation rarely mentioned explicitly and seldom analysed empirically?



Most analysts, though, would dismiss such a critique as amateurish. The nexus between capital accumulation and Middle East conflict, they would point out, is already there, embedded in the very concept of scarcity.

### **2.1 Securing the flow of oil?**

According to the conventional creed, both liberal and radical, capital is an *economic* category, a 'real', 'productive' entity whose accumulation is more or less synonymous with economic growth.<sup>2</sup> In order to accumulate and expand, say the economists, capital needs access to cheap raw materials, especially energy. And since the Middle East currently holds roughly one-half of the world's proven crude-oil reserves and accounts for one-third of its daily output, it is in the interest of capitalists – and of oil-consuming economies more generally – to ensure, violently if necessary, that this oil remains accessible, free flowing and cheap.

Seen from this viewpoint, the three episodes of the Gulf-War series – i.e., the 1990-91 attack on Iraq, the 2001-03 invasions of Afghanistan and Iraq, and the 2014 assault on ISIS – can be seen as part of a long-term scarcity-reducing operation and therefore integral to the accumulation of capital. Officially, of course, each conflict has its own reasons. In the first episode, the excuse was kicking Saddam Hussein out of Kuwait; in the second, it was eliminating Al-Qaeda from Afghanistan and ridding Iraq of its weapons of mass destruction; and in the third, it is eradicating ISIS from the face of the earth. But in the mind of most analysts, there is also an abiding common denominator: the need to make oil ample and inexpensive, so that capitalists can continue to accumulate and the world economy can continue to grow.<sup>3</sup>

The scarcity-reducing rationale is both popular and appealing. It sits well with the conventional mantras of neoclassical economics, it resonates with international relations, and it helps decorate cultural texts. Few academics protest it, the media heavily advertises it, and the masses love to buy it. All in all, then, it seems pretty much beyond dispute – save for one little problem: it doesn't align with the facts.

The difficulty is twofold. First, military intervention in the Middle East has intensified since the early 2000s – yet, this intensification has done little to keep the price of oil low; if anything, it has caused it to soar. Second, and perhaps more importantly, there is in fact no evidence that the price of oil has anything to do with scarcity at all! And if that is indeed the case, why use violence to make oil 'accessible'? Let's examine these two points more closely.

### **2.2 The ups and downs of oil prices**

Consider Figure 1.<sup>4</sup> The top series in the chart, plotted against the left scale, shows the 'real' price of crude oil – i.e., the price per barrel denominated in 2013 dollars. Now, recall that, during the early 2000s, the common view was that the attacks of 9/11 had given the U.S.-led coalition the pretext to dismantle, or at least incapacitate, OPEC. The *Economist* of London expressed this hope quite openly. '[K]nocking out Mr Hussein', the magazine predicted, 'would kill two birds with one stone: a dangerous dictator would be gone, and with him would go the cartel that for years has manipulated prices, engineered embargoes and otherwise harmed consumers' (Anonymous 2002).

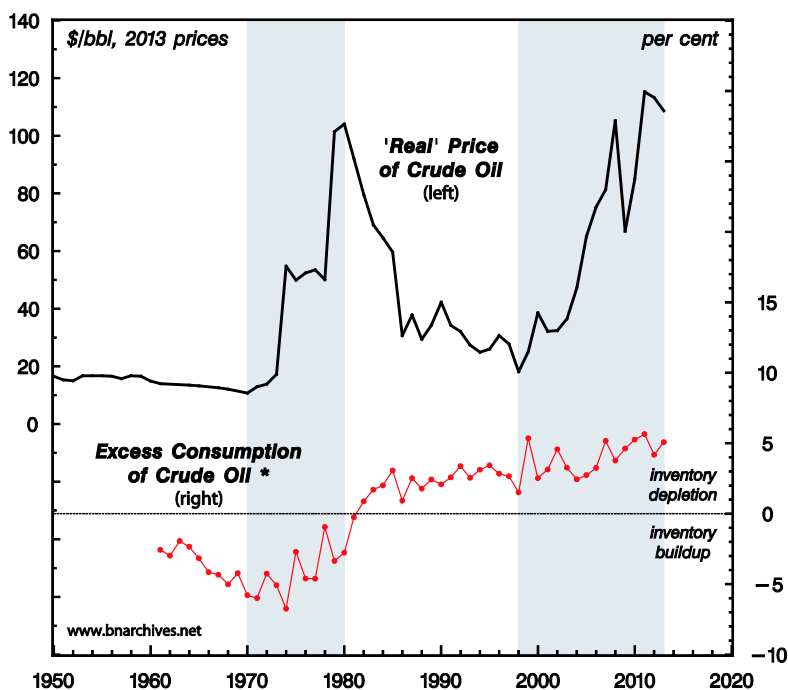
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<sup>2</sup> We enclose the terms 'real' and 'productive' in inverted commas to note that, in our view, these notions are fraught with conceptual and empirical difficulties. For more on these difficulties, see Nitzan and Bichler (2009a: Chs. 5-8).

<sup>3</sup> For a succinct account of this conventional belief, see Nitzan and Bichler (2003).

<sup>4</sup> The earliest version of this figure was presented and examined in Nitzan and Bichler (1995: 487-492).

Figure 1: 'Scarcity' and the 'real' price of oil



\* Excess consumption of crude oil is the difference between world consumption and world production, expressed as a per cent share of the average of world consumption and world production.

NOTE: Series show annual data. Consumption and production of crude oil include crude oil, tight oil, oil sands and NGLs (the liquid content of natural gas where this is recovered separately); they exclude liquid fuels from other sources such as biomass and derivatives of coal and natural gas. The 'real' price of crude oil is the dollar price deflated by the U.S. CPI. The last data points are for 2013

SOURCE: BP Statistical Review of World Energy, April 2014 and earlier issues (for oil consumption and production). IMF International Financial Statistics through Data Insight (series codes: L76AA&Z@C001 for the average price of crude oil; L64@C111 for the U.S. CPI).

Judging by Figure 1, though, this prediction failed miserably. The invasions and subsequent occupations of Afghanistan and Iraq have done little to keep oil prices down. Instead, they propped them up, massively. 'Not only has the use of force to procure Iraqi oil failed to achieve its intended results', lamented Michael Klare (2005), 'it has actually made the situation worse'. A barrel of crude oil, which in 2000 cost a mere a \$20 (in 2013 prices), sold in 2013 for nearly \$120. If the price of oil is indeed determined by scarcity, it seems that external interventions during this period have made oil not more abundant, but scarcer.

### 2.3 The scarcity puzzle

This last claim, though, is not easy to ascertain. The difficulty is twofold. First, scarcity and abundance denote the difference between 'demand' and 'supply' – i.e., between the *desires* of buyers and sellers. Economists, however, know nothing about these desires and therefore use *actual* consumption and production in their stead (for more on this issue, see the Appendix at the end of the paper). Second, estimates of global oil consumption and production are notoriously inaccurate, so even if the actual purchase and sale of oil were equal to its demand and supply, their measurements would still leave much to be desired.

Now, these problems could be forgiven and forgotten if the empirical data, however imperfect, were congruent with the theory. But they are not. Judging by Figure 1, the 'real' price of oil has little or nothing to do with its approximated scarcity.

The bottom series in Figure 1 is the conventional proxy for the scarcity of oil. This proxy is computed by subtracting global oil production from global oil consumption and expressing the result as a per cent share of the average of these two magnitudes. Assuming that consumption is equal to demand and production to supply, positive observations on the chart represent excess demand (inventory depletion), while negative observations denote excess supply (inventory build-up).

According to Economics 101, excess demand should cause 'real' prices to increase, while excess supply should cause them to fall. In line with this logic, we divided the period between 1960 and 2013 into four sub-periods, depending on whether the 'real' price of oil was heading up or down. In two of the periods – 1970-1980 and 1998-2003, which we shaded for easy identification – prices trended upward, while in the other two – 1961-1970 and 1980-1998 – they moved downward. Now, for the theory to be valid, periods of falling prices should be associated with excess supply (i.e., with inventory build-ups indicated by negative readings for the series); similarly, periods of rising prices should be associated with excess demand (inventory depletion, or positive readings).

But that is not what we see in Figure 1. Taking the data at face value, the chart shows that oil was in 'excess supply' till 1980. This condition is consistent with falling prices till 1970, but it is *inconsistent* with rising prices from 1970 to 1980. Similarly with the period from 1980 onward, which the data suggest was one of 'excess demand'. This condition is consistent with the price uptrend since 1998, but *inconsistent* with its downtrend between 1980 and 1998. In other words, scarcity *per se* – at least as conventionally measured by the consumption-production gap – can tell us very little about 'real' price movements (see Box 1).

**Box 1: 'Because' and 'despite' in the oil market**

Substituting physical shortages and material surpluses for excess demand and supply is a treacherous strategy, particularly for those trying to predict the price of oil. The following news headlines, collected at random between 1984 and 2004, suggest that such predictions are often not much better than tossing a coin. The headlines are arranged in pairs, with the first entry being consistent with the theory (the price changes 'because') and the second inconsistent (the price changes 'despite').

**Oil prices rise amid reports Iraq jets attacked operations at Iran terminal**

Michael Siconolfi, *Wall Street Journal*, August 13, 1986, p. 1

**World oil prices fall *despite* Iran-Iraq war**

*Chronicle - Herald Halifax*, July 7, 1984, p. 13

**Oil prices soar on OPEC pact to cut output**

Michael Siconolfi, *Wall Street Journal*, August 6, 1986, p. 1

**Oil price falls *despite* cut in output**

Paul Solman, *Financial Times*, June 13, 1998, p. 12

**OPEC agreement means oil prices likely to increase**

*The Gazette Montreal*, June 29, 1987, p. B5

**Oil prices fall *despite* OPEC agreement**

Gary Mead, *Financial Times*, June 25, 1998, p. 32

**Oil prices fall again in response to Bush's hope for Mideast accord and signs of ample supplies**

James Tanner, *Wall Street Journal*, October 3, 1990, p. C14

**Oil price rises *despite* ample supply**

*Calgary Herald*, December 8, 1995, p. C13

**Oil prices slide in anticipation of rise in output**

Marie C. Sanchez. *Wall Street Journal*, October 30, 2000, p. 1

**Oil prices soar *despite* rise in output**

*Toronto Star*, September 12, 2000, p. D3

**Oil prices fall on rising US stockpile**

Adrienne Roberts, *Financial Times*, June 28, 2001, p. 15

**Crude markets unfazed by OPEC; oil prices rise despite stock build**

*Octane Week Potomac*, June 26, 2000, Vol. 15, No. 26, p. 1

**Oil prices rise as OPEC output cut nears**

Robert DiNardo, John Kingston, Anita Nugraha and Margaret McQuaile, *Platt's Oilgram News*, March 5, 2004, Vol. 82, No. 43, p. 1

**Oil prices fall *despite* OPEC output cut**

*EIU Viewswire*, March 31, 2004

One could of course claim that, with the rising threat of Peak Oil, short-term variations of production and consumption, particularly since the early 2000s, have become less important for the price of oil. The problem with this argument is that the finality of oil and the bell shape of its temporal production had already been recognized in the 1950s, yet the price of oil, instead of rising continuously since this recognition, has fluctuated heavily.<sup>5</sup> As Figure 1 shows, measured relative to the U.S. CPI, oil prices increased more than tenfold in the 1970s, fell by more than 80 per cent till the late 1990s, and rose sixfold since then.

All in all, then, the conventional scarcity link between capital accumulation and Middle East conflict remains unsubstantiated. Not only has outside intervention in the region been associated with rising as well as falling prices, but these price oscillations seem unrelated to the material short- and long-term underpinnings of the oil sector.

Does this record mean that Middle East conflicts are largely unrelated to the scarcity and price of oil, and therefore to the accumulation of capital? Could it be that conflict in the region is mostly cultural, political or international in nature and has little or nothing to do with capitalism as such? Should we abandon the holy trinity of demand-supply-equilibrium and examine this question from a different angle altogether, or is oil simply the exception to the otherwise eternal laws of neoclassical economics?

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<sup>5</sup> The concept of Peak Oil is due to the pioneering work of King Hubbert (1956).

### 3. From absolute accumulation to differential accumulation

The answer starts with capital.<sup>6</sup> As noted, the conventional creed, both mainstream and heterodox, sees capital as an 'economic' entity. This entity is said to exist as an amalgam of 'real' productive items such as machines, structures, semi-finished goods, inventories, raw materials and, in the opinion of many, also knowledge. Now, according to the economists, this 'real' amalgam has a unique absolute magnitude, enumerated in universal quantities of consumption and production: it can be measured either in 'utils' (units of utility), which are the elementary particles of mainstream economics, or in socially necessary abstract labour time, which is the elementary particle of Marxism. In principle, this framework should enable us to look at the 'capital stock' of ExxonMobil and conclude that it has a util-generating capacity of 5 trillion (say), or that its magnitude is equivalent to the 10 billion socially necessary abstract labour hours it would take to reproduce.

Unfortunately, this 'economic' view of capital, although all-prevalent in theory, is largely useless in practice. First, utils and socially necessary abstract labour time are impossible to observe, let alone measure (and they might be logically inconsistent to start with). This inability means that the 'real capital' of individual firms such as ExxonMobil cannot be quantified, and therefore that the aggregate 'capital stock', which national statisticians labour so hard to amalgamate, has no clear meaning. Second, and perhaps more pertinently for our purpose here, 'real' accumulation, however measured, is pretty much irrelevant in modern capitalism.

#### 3.1 Capital as power and differential accumulation

In our day and age, capitalists and corporations are conditioned and driven not to maximize their 'real' profits, but to beat the average and exceed the normal rate of return. They seek not to perform, but to *outperform*; to obtain not absolute accumulation, but *differential* accumulation. For ExxonMobil, a 10 per cent rate of return is a mark of failure if the global average is 20 per cent; but a -5 per cent return (i.e., an outright loss) is deemed a huge success if the average return is an even bigger loss of -15 per cent.

This differential drive is no fluke. Capital, we argue, is not a productive economic entity, but a *quantitative measure of organized power*. And since power relations are inherently *relative*, capital, which denotes the quantity of organized power, must be assessed differentially.

Take ExxonMobil again. In 2013, the company's net profit stood at \$32.6 – a figure 15.8 times larger than the net profit earned by the typical *Fortune 500* firm (\$2.2 billion) and 103,578 times larger than the net profit of the average U.S. corporation (\$308,945).<sup>7</sup> These differentials quantify the complete spectrum of power processes that, together, define the capitalized entity we call ExxonMobil. They reflect the power politics and wars of the Middle East in which ExxonMobil is deeply embedded; the conflictual relations ExxonMobil has with its buyers, suppliers and workers; the company's struggles and collaborations with governments through concessions, taxation, subsidies, energy-related policies, intelligence services and bribes, among other links; its power alliances and feuds with other integrated oil companies as well as with the energy sector more broadly; its divergences and convergences with different corporate

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<sup>6</sup> The issues discussed in Section 3 are developed more fully in Nitzan and Bichler (2009a), Bichler and Nitzan (2012b), Bichler, Nitzan and Di Muzio (2012), and Bichler, Nitzan and Dutkiewicz (2013).

<sup>7</sup> Data are from *Compustat* through WRDS, *Fortune 500*, the U.S. Department of Commerce through Global Insight and the U.S. IRS.

coalitions across the business universe; its tenuous engagement with science over issues of Peak Oil, pollution and climate change; the list goes on.

Every dollar of ExxonMobil profit is impregnated with these power relations – and *nothing but* these power relations – and the same holds true for every other corporation (and, indeed, for every income-earning entity). And since differential corporate profits quantify relative corporate power, the differential market value of corporations – which discounts expected profits into present asset prices – is in fact nothing but the *capitalization of power*.

Now, in order to sustain and augment their relative profit and capitalization, corporations need to engage in *strategic sabotage*: they must subvert their opponents as well as society as a whole.<sup>8</sup> They have to keep their rivals at bay, undermine their initiative and thwart their thrust. More broadly, they need to hold society below its full potential, to redirect its activities so that these activities amplify their own distributive share. To achieve their differential goals, corporations are compelled to manipulate threats and leverage violence, to undermine resonance and inflict dissonance, to restrict autonomy and exact obedience. In this sense, their capital *is* power, and nothing but power. Its differential accumulation symbolizes the ability of the capitalists who own it and the state organs that support it to *creorder* – or create the order of – the world in their own capitalized image.

The notion of capital as power is fundamentally different from received convention. Economists do not ignore power, of course. But they treat it as if it were *external* to capital proper. Power, they readily concede, can bolster accumulation (as heterodox political economists repeatedly emphasize), or distort and undermine it (as mainstream economists love to insist). But since capital itself remains a purely economic entity, the impact of power, whether positive or negative, must come from *without*, by definition.

By contrast, in our framework power is *internal* to capital. Indeed, it is power relations that *define* what capital is in the first place, and it is power relations – and the mode of power more generally – that determine how large capital is and how quickly it accumulates. This is why we speak not of capital *and* power, but of capital *as* power; not of a juxtaposition, but of a figurative identity.<sup>9</sup> And since power is not a qualitative entity in its own right but a quantitative relationship between entities, the accumulation of capital as power must be measured – as it is indeed measured every day and everywhere – not absolutely, but *differentially*.<sup>10</sup>

### **3.2 Dominant capital and differential accumulation regimes**

Now, if we think of capital not as a productive economic entity but as the quantification of organized power, and if we measure it not absolutely but differentially, we can no longer treat it as a mere aggregate. We need to examine not only the generalized conflicts capital has with other broad groups in society, such as workers and the unemployed, but also the redistributive struggles within capital itself. We must unpack not only capital's overall movements relative to other aggregates, but also the constant realignment of its own pecking order.

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<sup>8</sup> The notion of 'strategic sabotage' and its central role in capital accumulation were first articulated by Thorsten Veblen (1904, 1923).

<sup>9</sup> Note that while all capital is power, not all power is capital. Although capital has become socially central and ever more encompassing, conceptually it remains one of many forms of power in society.

<sup>10</sup> The conception of power or force as a quantitative relationship between entities rather than a stand-alone qualitative entity was first proposed and articulated in 1600 by Johannes Kepler (Jammer 1957).



This is where our notion of ‘dominant capital’ comes to the fore. The term refers to the leading state-backed corporate coalitions at the centre of the process being examined, whether that process takes place in a particular sector, a particular country or region, or the global political economy as whole.<sup>11</sup>

To accumulate differentially, dominant capital needs to beat the relevant average. Analytically, it could do so either by expanding the relative size of its organization measured in terms of employees, or by increasing its profit (and capitalization) per employee. In our work, we call the first process ‘breadth’ and the latter ‘depth’ and argue that, over the past century, breadth has been increasingly achieved not through greenfield investment in new plant and equipment but through mergers and acquisitions, while depth has principally been achieved not through cost-cutting but through inflation in the midst of stagnation, or stagflation. Moreover, research by us and others suggests that, for the political economy as a whole, these two processes tend to develop into increasingly synchronized ‘regimes’ – with the ups and downs in mergers and acquisitions being *inversely* correlated with the cycles of stagflation.<sup>12</sup>

Note that regimes of differential accumulation are not narrow ‘market’ phenomena, but broad societal transformations. They are driven not by economic growth and price stability, but by corporate amalgamation and redistributive stagflation. Their key feature is not the augmentation of means of production, but the restructuring of power writ large. Over time, they serve to realign the relationships between different groups in society, between these groups and governments and within capital itself. In other words, they are politicized to their very core. And this politicization makes them crucial for our purpose here: they can help us reconceptualise, recontextualize and research the connection between Middle East conflict and the accumulation of capital.

#### **4. The Weapondollar-Petrodollar Coalition**

Our study of this connection began in the late 1980s. In 1989, before the dawn of the internet age, we wrote an obscure series of four discussion papers on oil, armaments and the Middle East.<sup>13</sup> The papers showed that, by the early 1970s, the Middle East had become the focus of two important flows – receipts from weapon imports into the region and revenues from oil exports out of it. Underpinning these two flows, we identified the emergence of a formidable, albeit uneasy, global alliance between the integrated oil companies, the large armament contractors, leading Western governments and key oil-producing countries. We called this

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<sup>11</sup> For studies of dominant capital in particular sectors, see for example Baines (2013a, 2013b, 2014) on the grain traders, Cochrane (forthcoming PhD dissertation) on the De Beers cartel, Hager (2012, 2013a, 2013b) on the ownership of the U.S. national debt, Gagnon (2009) on the pharmaceutical sector, McMahon (2013) on Hollywood and Nitzan and Bichler (Nitzan and Bichler 1995; Bichler and Nitzan 1996) on oil and armaments. For works on particular countries and regions, see Brennan (2012b, 2012a, 2014) on Canada, Park (2013, 2015 forthcoming) on South Korea and Nitzan and Bichler (2002, 2009a) on Israel, the Middle East and the United States. For an examination of the global top 1%, see Di Muzio (2015). For the historical role of corporate and government hierarchies around the world in the growth of energy use, see Fix (2015).

<sup>12</sup> On breadth and depth in the United States, see Nitzan (2001) and (2009a: Ch. 17). On breadth and depth in Israel, see Nitzan and Bichler (2000; 2002: Ch. 4). For a comparison of Britain and the United States (including revised data for the latter), see Francis (2013). On South Korea, see Park (2013, 2015 forthcoming). On Canada, with somewhat different conclusions, see Brennan (2014).

<sup>13</sup> Bichler, Nitzan and Rowley (1989); Nitzan, Rowley and Bichler (1989); Rowley, Bichler and Nitzan (1989); and Bichler, Rowley and Nitzan (1989).

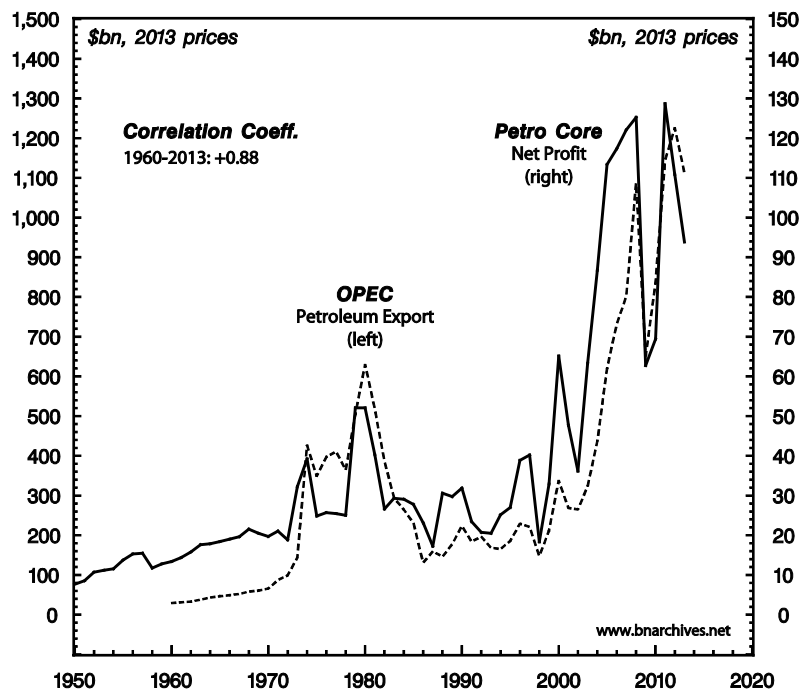


global alliance the 'Weapondollar-Petrodollar Coalition' and set out to explore its nature, history and implications.<sup>14</sup>

#### 4.1 The Petro-Core and the oil-producing countries

The interests of the Weapondollar-Petrodollar Coalition, we have argued, converged on high crude-oil prices. For the oil-producing countries, the rationale is straightforward: since the cost of extracting the crude oil changes only gradually, most of the increase in price translates into higher net income (higher prices may reduce the number of barrels sold, but with oil this loss tends to be relatively small).

**Figure 2:** OPEC and the Petro-Core



NOTE: Series show annual data. The Petro-Core consists of British Petroleum (BP-Amoco since 1998), Chevron (with Texaco since 2001), Exxon (ExxonMobil since 1999), Mobil (till 1998), Royal-Dutch/Shell and Texaco (till 2000). Company changes are due to merger. Data are deflated by the U.S. implicit price deflator. The last data points are for 2013.

SOURCE: OPEC Statistical Bulletin 2014, Table 2.4: OPEC Members' Values of Petroleum Exports (for OPEC's petroleum exports)

<http://www.opec.org/library/Annual%20Statistical%20Bulletin/interactive/current/FileZ/XL/T24.XLS>.

U.S. Department of Commerce, Bureau of Economic Analysis through Data Insight (series code: PDIGDP for the U.S. GDP deflator). *Fortune* and Compustat through WRDS (for the Petro-Core's net profit).

For the integrated oil companies, the reason is a bit more involved. Crude oil is a major input for the refining operations of those firms, so when its price increases, so does the companies' cost of production. However, the oil companies do not simply absorb this higher cost while keeping their selling price unchanged. Instead, they usually mark their cost up by a given margin, passing on most of the increase – and sometimes more – to their consumers in the form of a

<sup>14</sup> The results of this exploration were first published in two related articles that sought to 'bring capital accumulation back in' (Nitzan and Bichler 1995) and 'put the state in its place' (Bichler and Nitzan 1996).

higher price. The effect of this 'passing on', though, is anything but neutral. The companies' profit margin, defined as the *ratio* of profit to sales, may remain stable; but this very stability ascertains that the *absolute* dollar level of their profit will grow in line with their higher cost. So for the integrated oil companies, too, higher crude-oil prices generally translate into fatter bottom lines.<sup>15</sup>

The converging performance of these two groups – the integrated oil companies and the oil-producing countries – is illustrated in Figure 2.<sup>16</sup> The chart, expressed in constant 2013 dollars, contrasts the total oil exports of OPEC with the net profit of the 'Petro-Core', a name we devised to denote the world's leading private integrated oil companies. During the early 1960s, this core comprised six firms – British Petroleum, Chevron, Exxon, Mobil, Royal-Dutch/Shell and Texaco. The 1999 merger of Exxon and Mobil into ExxonMobil reduced this number to five, and the 2001 absorption of Texaco by Chevron truncated it further to four (which is the current situation).<sup>17</sup>

As the chart makes clear, the correlation between the two series is tightly positive (a Pearson coefficient of 0.88 out of a maximum value of 1). This correlation means that whatever determines the income of one group has a similar impact on the earnings of the other – and vice versa. And the most important determinant of oil incomes, at least since the 1970s, has been the price of oil.

#### **4.2 It's all in the price**

The pivotal role of price is depicted in Figure 3. The chart juxtaposes the differential earnings per share (EPS) of the integrated oil companies and the relative price of crude oil (monthly data smoothed as 12-month trailing averages).<sup>18</sup> The differential EPS series (solid line) is the ratio between the average EPS of the world's listed integrated oil companies and the average EPS of all listed firms in the world. When this ratio goes up – i.e., when the oil companies beat the world average – the result is differential accumulation; when the ratio goes down – that is, when the oil companies trail this average – the result is differential decumulation.

The relative price measure (dashed series) shows the dollar cost of a barrel of crude oil expressed in constant 2013 prices (derived by deflating the current price by the U.S. CPI). A rise in this index means that oil prices increase more quickly (or fall more slowly) than consumer prices, while a drop suggests that they decrease more quickly (or rise more slowly).

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<sup>15</sup> Oil profits can be affected adversely by drops in the physical volume of sales and/or by lower profit margins; but a large enough increase in the price of crude oil will tend to overwhelm these negative effects, causing overall profit to rise together with cost. For a detailed discussion, see Nitzan and Bichler (2004: footnote 42, pp. 305-306).

<sup>16</sup> For the first version of this chart, see Nitzan and Bichler (1995: 485, Figure 5).

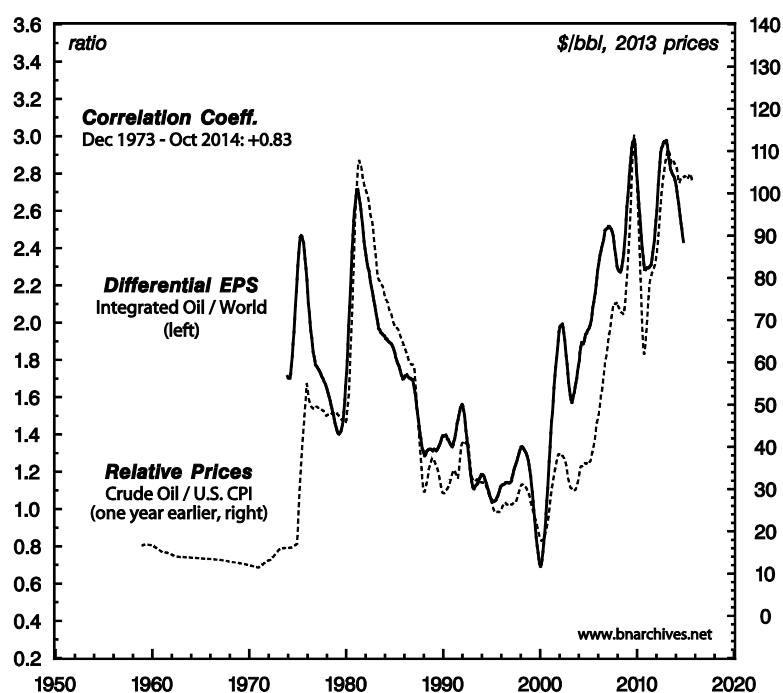
<sup>17</sup> Note the difference in scale. The two series show that, since 1960, OPEC revenues have been roughly ten times larger than the net profit of the Petro-Core. Much of this difference, though, is the consequence of aggregation: OPEC currently has 12 members, while the Petro-Core consists of four firms. So if instead of comparing aggregate exports with aggregate profit we contrast export revenues *per country* with net profit *per firm*, the ratio between them drops to roughly three to one. Furthermore, to make the two earning magnitudes conceptually comparable, we need to deduct from OPEC's export revenues the direct and indirect cost of producing the oil (including expenditures necessary to sustain authoritarian social regimes) and add to the oil companies' net profits the corporate taxes appropriated by their respective governments. These adjustments would make the oil earnings of the two entities – the countries and the companies – more or less comparable in size.

<sup>18</sup> Earnings per share are computed by dividing total after-tax earnings by the number of outstanding shares.

Note that the relative price of oil is plotted with a one-year lag, so that current readings on the chart show what this price was 12 months earlier. The reason for this lag is that ‘current’ monthly EPS are not really current; instead, they represent the average of the past four quarters, so the full impact on profit of a change in oil prices is felt only after a year.

The historical picture portrayed by this chart leaves little to the imagination. It shows that, as far as the differential profits of the integrated oil companies are concerned, the key factor, at least since the early 1970s, was and remains the relative price of oil. The high Pearson correlation coefficient between the two series (0.83) means that analysts trying to predict the differential profits of the integrated oil companies don’t need to look very far. They don’t need to project supply and demand, and not even consumption and production. They don’t have to worry about China’s avaricious appetite for energy or the shale-oil boom in the United States. They don’t need to disentangle the web of international relations, and they don’t have to deconstruct culture and religion. All they need to know is the relative price of oil 12 months earlier. And since oil profits go together with the earnings of the oil-producing countries (Figure 2), the same logic applies to OPEC. In short, in the oil sector, profits and incomes are ‘all in the price’.<sup>19</sup>

**Figure 3:** Differential earnings per share and the relative price of crude oil



NOTE: Series show monthly data smoothed as 12-month trailing averages. EPS denotes earnings per share and is calculated by dividing the stock price index by the price-earnings ratio. Differential EPS is calculated by dividing the EPS of the integrated oil index by the EPS of the world index. The relative price of oil is the average crude price deflated by the U.S. CPI. The last data points are October 2014 for the differential EPS and August 2014 for the relative price of oil.

SOURCE: Datastream (series codes: TOTMKWD(PI) and TOTMKWD(PE) for the price index and price-earnings ratio of all listed firms, respectively; OILINWD(PI) and OILINWD(PE) for the price index and

<sup>19</sup> This claim applies equally to the global oil and gas sector as a whole. The Pearson correlation between this sector’s EPS and the relative price of oil is 0.85 – practically the same as the one for the integrated oil companies only. The net profit of the entire oil and gas sector is roughly 50 per cent larger than that of the integrated oil companies (based on August 2014 data from Datastream), but the EPS of the two groupings are tightly correlated (Pearson coefficient of 0.97).

price-earnings ratio of all listed integrated oil firms, respectively). IMF International Financial Statistics through Data Insight (series codes: L76AA&Z@C001 for the average price of crude oil; L64@C111 for the U.S. CPI).

### **4.3 The Arma-Core**

The leading armament contractors – based primarily in the United States, but also in Europe, the Soviet Union (later Russia) and other countries – have also come to benefit from higher oil prices. This benefit first became apparent in the 1970s. The waning of the Vietnam conflict shifted the focus of arms exports from East Asia to the Middle East. During the late 1960s, East Asia absorbed nearly 40 per cent of the world's arms exports, while the Middle East and North Africa (MENA) accounted for only 15 per cent. By the mid-1970s, though, the situation reversed: the share of East Asia dropped to less than 10 per cent, while that of MENA increased fourfold, to roughly 60 per cent.<sup>20</sup>

The 1970s were lean years for the weapon makers. The end of the Vietnam War and the beginning of Détente caused domestic military budgets to drop sharply. In the United States, the GDP share of military expenditures was cut in half – from 10 per cent in the late 1960s to 5 per cent in the late 1970s.<sup>21</sup> Under these circumstances, a concurrent shrinkage of the export market – where profit margins are typically far higher than in domestic sales – would have spelled disaster for the armament contractors. And that is where the Middle East came to the rescue.

The price of oil, which tripled in inflation-adjusted terms during the early 1970s and again doubled later in the decade (Figure 1), increased the oil revenues of Middle East oil-producing countries many times over (Figure 2). And with their purchasing power rapidly rising, these countries went on a shopping spree. They imported anything and everything foreign, including plenty of weapons. According to our empirical estimates, between 1973 and 1989, every additional \$100 of Middle East oil revenues generated \$6 of armament imports.<sup>22</sup> In this way, higher oil prices became the lifeline of the ailing armament contractors.

### **4.4 Western governments, particularly the U.S.**

The position of Western governments on the issue of oil prices has been more complex, and sometimes duplicitous. In public, most politicians have found it expedient to call for 'cheap', or at least 'affordable' energy, and for good reason. During the 1970s, higher oil prices were blamed for triggering a stagflation crisis that placed their voters between the rock of inflation and the hard place of stagnation. Economists called it a 'supply shock', an exogenous 'distortion' that rattled the otherwise self-equilibrating market system. And that branding made it easier to put the blame on others.<sup>23</sup>

The usual suspects were the greedy oil sheiks – although there were also other culprits, particularly the unscrupulous labour unions and the capricious sky gods. These 'actors', complained the economists, didn't play by the rules. Instead of simply reacting to 'market forces' as the textbooks require, they took an 'autonomous' initiative. Acting unilaterally,

<sup>20</sup> See Rowley, Bichler and Nitzan (1989: 11, Table 1).

<sup>21</sup> See Bichler and Nitzan (2004: 319, Figure 16).

<sup>22</sup> Nitzan and Bichler (1995: 493-496). For an earlier rough estimate, see Rowley, Bichler and Nitzan (1989: 31, Figure 9).

<sup>23</sup> For the conventional view on this subject, see for example Blinder (1979), Bruno and Sachs (1985) and Blinder and Rudd (2008).

without provocation and with no justification, they simply increased the price of energy, labour and foodstuffs. Just like that. Worse still, the increases were entirely 'arbitrary': they were driven not by technology and desires (read supply and demand), but by power, greed and whim.

Unfortunately, though, there is no such thing as a free lunch. The laws of the market, like those of any organized religion, cannot be violated without repercussion. And since we haven't managed to prevent the gross violation of these laws, we must all pay the price in the form of generalized stagflation. Given this 'narrative', no politician in her right mind would openly call for high oil prices.

But there were other, less publicised sides to these developments. Rising oil prices served the large oil and armament companies, which during the 1970s and 1980s dominated the business universe, particularly in the United States, and whose interests the politicians could not easily ignore.<sup>24</sup> Rising oil prices were also expected to skew the geopolitical balance in favour of the United States and Britain, which had their own oil resources, and against Japan and Continental Europe, which did not. And, last but not least, rising oil prices helped fortify the autocratic regimes of Iran and Saudi Arabia – the 'twin pillars' of U.S. policy in the Middle East. Taken together, these considerations may serve to explain the apparently schizophrenic position of the U.S. administration, which, although officially in favour of low energy prices, was instrumental to the 1971 Tripoli and Teheran agreements that solidified OPEC and led to the twelfold increase in the price of oil.<sup>25</sup>

#### **4.5 From free flow to limited flow**

The interest of the Weapondollar-Petrodollar Coalition in high oil prices radically transformed the nature of the oil business. Until the late 1960s, the sector operated on a 'free-flow' basis (our term). The main focus was volume. The Petro-Core still owned much of its crude oil, and with prices being relatively low and stable – Figure 1 shows that in the 1950s and 1960s they averaged \$10-20 in 2013 dollars – profitability correlated positively with the level of output.

This situation changed completely in the 1970s. The rise of OPEC and the massive nationalization of oil resources deprived the Petro-Core as well as lesser companies of their previous properties in many of the oil-producing regions. They became 'service providers' for the oil-producing countries. They extracted, refined and marketed oil and its products, but their ownership of the raw material itself was significantly curtailed. Most importantly, they lost their previous control over prices.

It was the dawn of a new, 'limited-flow' regime (our term). Prices in this new regime have become deeply politicized. They were no longer set by the invisible hand of the almighty 'market' (i.e., the leading oil companies and the main users of oil). Instead, they were determined, visibly and explicitly, by OPEC, with plenty of intervention and pressure from various governments and international organizations. And the oil itself, rather than flowing 'freely', was now fine-tuned by OPEC quotas to fit 'what the market can bear'.<sup>26</sup>

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<sup>24</sup> During that period, the net profit of the oil firms and defence contractors reached 15 per cent of the global total (Bichler and Nitzan 2004, Figure 15, p. 316).

<sup>25</sup> For more on these considerations and the other interests involved, see for example Bichler and Nitzan (1996) and Nitzan and Bichler (2002: 225-228, 247-250).

<sup>26</sup> Or, as Ali Al-Naimi, Saudi Arabia's Oil Minister put it: 'The price is determined by the market, what we try to do is to make the market balanced. Today there is disequilibrium between supply and demand.'

Initially, the leading oil companies were alarmed by this turn of events. Having occupied the commanding heights of the energy world for much of the twentieth century, they suddenly found themselves demoted to a status of 'interested bystanders', as one observer put it (Turner 1983: 147-148). Their apprehension, though, was short-lived. OPEC, they quickly realized, was their manna from heaven. Although no longer in the driver's seat, they remained indispensable for the cartel's extraction and transportation, not to speak of its downstream operations and complex business dealings.<sup>27</sup> In return for these services, the companies received something they could not have achieved on their own: a *tenfold* rise in the inflation-adjusted price of oil and a concomitant jump in their differential profit-read-power (Figure 3).

And so the oil arena shifted from the earlier 'free flow' logic of greenfield breadth to the new 'limited flow' logic of stagflationary depth. Instead of producing more and more oil to profit from a growing economy, OPEC and the companies concentrated on raising oil prices to profit from the sabotage of inflation and stagnation they inflicted on the rest of the world. This shift was supported by the armament contractors who saw their weapon exports to the Middle East soar, and it was condoned, usually tacitly though occasionally openly, by the U.S. and U.K. governments.

## 5. Energy conflicts

Central to this shift was the new institution of 'energy conflicts'. As noted in Section 2, the common view on the subject is that resource wars – and certainly wars over oil – are fought to make the commodity accessible and cheap, at least for the aggressors. But in the late 1960s and early 1970s, we have argued, there emerged in the oil arena a new form of organized violence: the energy conflict. This type of conflict serves not the end users of oil, but its owners, sellers and associated allies; and it does so not by cheapening oil, but by making it more expensive.

As we have seen in Figure 1, the price of oil has little to do with the commodity's *actual* scarcity, however estimated. But it has plenty to do with its *perceived* scarcity. In the modern world of capital, accumulation is forward-looking. The capitalization ritual compels investors to look not to the past, but to the future: to fantasize alternative scenarios, assess their likely effect on oil, and discount these effects, weighted by their respective 'risk coefficients', into current prices.<sup>28</sup> And from the late 1960s onward, the most important scenario for the price of oil has been conflict in the Middle East.

We should note, though, that however important and central, the price of oil here is merely a means to an end. The end itself is profit – and more precisely, *differential profit* – and it is this magnitude we now turn to examine.

The historical link between energy conflicts and differential profits is demonstrated in Figure 4.<sup>29</sup> The chart shows the differential return on equity of the Petro-Core. This measure is computed in

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Today we are trying to get the market to the normal equilibrium and the price will take care of itself' (Hoyos 2006).

<sup>27</sup> For a detailed scholarly account of this interdependency, see Blair (1976). A riveting literary description is offered by Clavell's novel *Whirlwind* (1986).

<sup>28</sup> For a typical example of such calculations, see Deeley (2013).

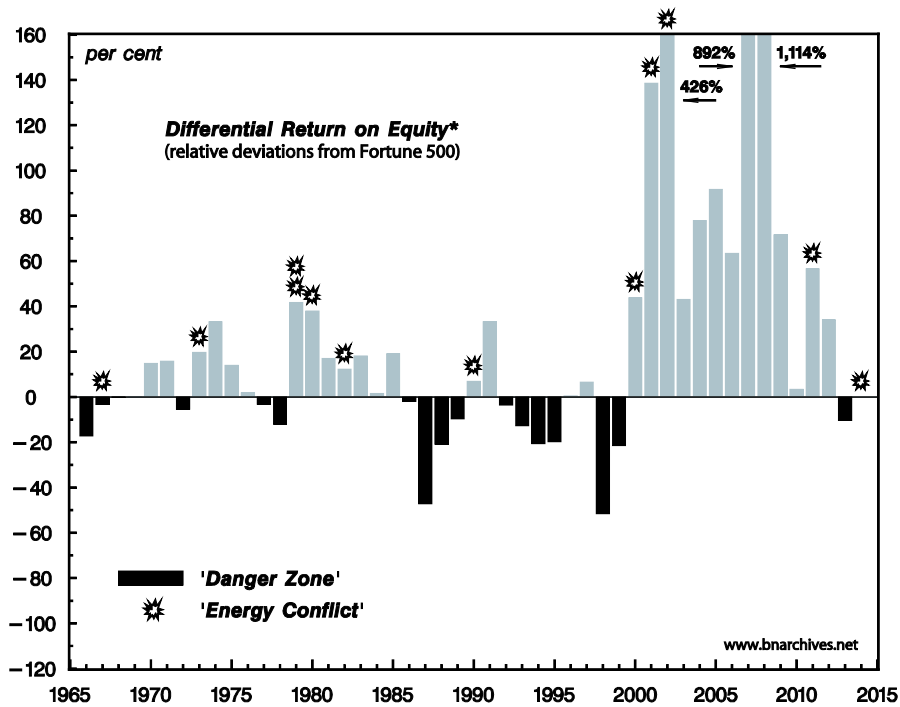
<sup>29</sup> This chart first appeared in Nitzan and Bichler (1995: 499). An earlier, non-differential precursor is given in Rowley, Bichler and Nitzan (1989: 26, Figure 8).



two steps: first, by subtracting the return on equity of the *Fortune 500* group of companies from the return on equity of the Petro-Core; and second, by expressing the resulting difference as a per cent of the *Fortune 500*'s return on equity. Positive readings (grey bars) indicate differential accumulation: they measure the extent to which the Petro-Core beats the *Fortune 500* average. Negative readings (black bars) show differential decumulation: they tell us by how much the Petro-Core trails this average.

A stretch of differential decumulation constitutes a 'danger zone' – i.e., a period during which an energy conflict is likely to erupt in the Middle East. The actual breakout of a conflict is marked by an explosion sign. The individual conflicts are listed in the note underneath the chart.

**Figure 4:** Energy Conflicts and Differential Profits: The Petro-Core vs. the *Fortune 500*



\* Return on equity is the ratio of net profit to owners' equity. Differential return on equity is the difference between the return on equity of the Petro-Core and of the *Fortune 500*, expressed as a per cent of the return on equity of the *Fortune 500*. For 1992-93, data for *Fortune 500* companies are reported without SFAS 106 special charges. The last data point is for 2013.

NOTE: The Petro-Core consists of British Petroleum (BP-Amoco since 1998), Chevron (with Texaco since 2001), Exxon (ExxonMobil since 1999), Mobil (till 1998), Royal-Dutch/Shell and Texaco (till 2000). Company changes are due to mergers. Energy Conflicts mark the starting points of: the 1967 Arab-Israel war; the 1973 Arab-Israel war; the 1979 Iranian Revolution; the 1979 Soviet invasion of Afghanistan; the 1980 Iran-Iraq War; the 1982 second Israeli invasion of Lebanon; the 1990-91 first Gulf War; the 2000 second Palestinian Intifada; the 2001 attack of 9/11, the launching of the 'War on Terror' and the invasion of Afghanistan; the 2002-3 second Gulf War; the 2011 Arab Spring and outsourced wars; the 2014 third Gulf War.

SOURCE: *Fortune*; *Compustat* through WRDS.

### 5.1 The stylized patterns

The figure shows three stylized patterns that have remained practically unchanged for the past half-century:



- First, and most importantly, every energy conflict save one was preceded by the Petro-Core trailing the average. In other words, for a Middle East energy conflict to erupt, the leading oil companies first have to differentially *decumulate*.<sup>30</sup> The only exception to this rule is the 2011 burst of the Arab Spring and the subsequent blooming of ‘outsourced wars’ (our term for the ongoing fighting in Lebanon-Syria-Iraq, which is financed and supported by a multitude of governments and organizations in and outside the region). This round erupted without prior differential *decumulation* – although the Petro-Core was very close to falling below the average. In 2010, its differential return on equity dropped to a mere 3.3 per cent, down from 71.5 per cent in 2009 and a whopping 1,114 per cent in 2008.
- Second, every energy conflict was followed by the oil companies beating the average. In other words, war and conflict in the region – processes that are customarily blamed for rattling, distorting and undermining the aggregate economy – have served the differential interest of the large oil companies at the expense of leading non-oil firms.<sup>31</sup> This finding, although striking, should not surprise our reader. As we have seen, differential oil profits are intimately correlated with the relative price of oil (Figure 3); the relative price of oil in turn is highly responsive to Middle East ‘risk’ perceptions, real or imaginary; these risk perceptions tend to jump in preparation for and during armed conflict; and as the risks mount, they raise the relative price of oil and therefore the differential accumulation of the oil companies.
- Third and finally, with one exception, in 1996-97, the Petro-Core never managed to beat the average without there first being an energy conflict in the region.<sup>32</sup> In other words, the differential performance of the oil companies depended not on production, but on the most extreme form of sabotage: war.<sup>33</sup>

## 5.2 Another angle

How robust are these conclusions? Are they sensitive to the particular measure of differential profit being used? Will they still hold if we use a different proxy?

Figure 5 tries to assess these questions. Here the focus is on the world as a whole, and the measure for profit is earnings per share (EPS). The top two series contrast the average EPS performance of the world’s listed integrated oil companies with the average EPS performance of all of the world’s listed companies. Each series measures the annual rate of change of the respective EPS, computed by comparing any given month with the same month a year earlier and expressed as a three-year trailing average.

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<sup>30</sup> In the late 1970s and early 1980s, and again during the 2000s, differential *decumulation* was sometimes followed by a string of conflicts stretching over several years. In these instances, the result was a longer time lag between the initial spell of differential *decumulation* and some of the subsequent conflicts.

<sup>31</sup> It is important to note here that the energy conflicts have led not to higher oil profits as such, but to higher *differential* oil profits. For example, in 1969-70, 1975, 1980-82, 1985, 1991, 2001-02, 2006-07, 2009 and 2012, the rate of return on equity of the Petro-Core actually fell; but in all cases the fall was either slower than that of the *Fortune 500* or too small to close the positive gap between them, so despite the decline, the Petro-Core continued to beat the average.

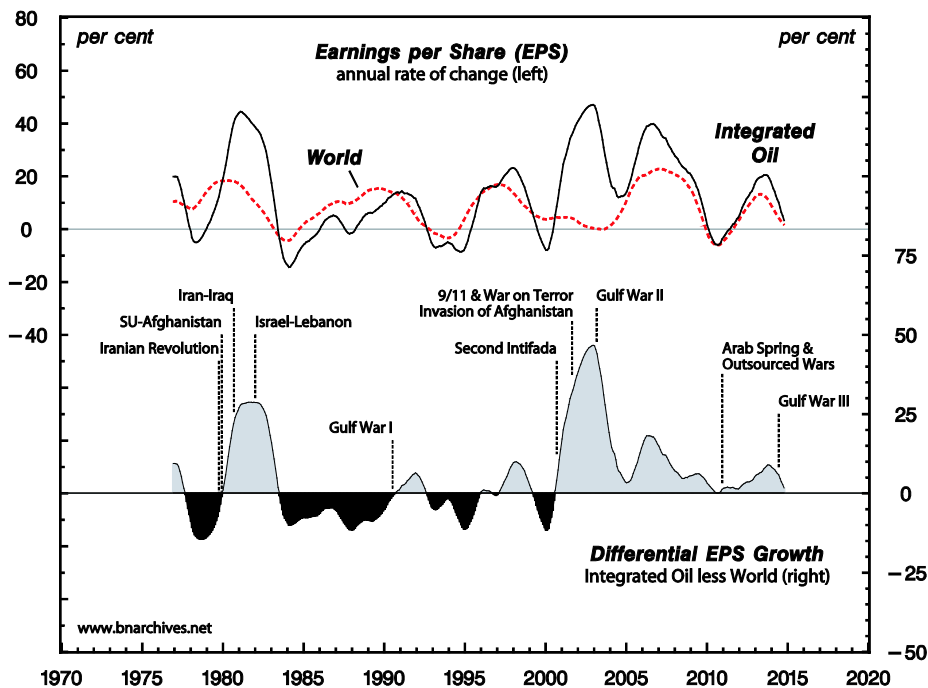
<sup>32</sup> Although there was no official conflict in 1996-97, there was plenty of violence, including an Iraqi invasion of Kurdish areas and U.S. cruise missile attacks (‘Operation Desert Strike’).

<sup>33</sup> For the details underlying the individual energy conflicts, as well as a broader discussion of the entire process, see Bichler and Nitzan (1996), Nitzan and Bichler (2002: Ch. 5), Bichler and Nitzan (2004) and Nitzan and Bichler (2006).

The bottom series shows the differential EPS growth of the integrated oil companies. This series is derived by subtracting the EPS growth rates of the world index from the EPS growth rate of the integrated oil index and expressing the result as a three-year trailing average. As in Figure 4, grey areas indicate periods during which the integrated oil companies beat the average (differential accumulation), while black areas show periods in which they trail the average (differential decumulation).

Now, note that, while the energy conflicts here are the same as those listed in Figure 4, the measure of differential profit is different in several important respects. (1) The geographical scope is much wider and the focus is less on corporate size and more on the nature of business activity. Whereas in Figure 4, the comparison is between a Petro-Core of four to six firms and the U.S.-based *Fortune 500*, here the comparison is between all of the world's listed integrated oil companies and the world average for all listed companies. (2) The profit metric is different. Whereas in Figure 4, the proxy of choice is return to equity, here it is earnings per share (EPS). (3) The nature of the variables is different. While in Figure 4 we look at levels, here we examine rates of change. (4) The temporality is more refined. Whereas in Figure 4 the data are annual, here they are monthly, expressed as a three-year trailing average. (5) The comparison of the two indices is different. In Figure 4, the difference between the two profit measures is expressed as a per cent of the benchmark measure, whereas here it is presented in absolute terms. And (6), the period under examination is shorter – in Figure 4 it starts in 1966, while here the data begin only in 1973 (1976 for the three-year trailing averages).

**Figure 5:** Energy conflicts and differential profits: integrated oil companies vs. the world



NOTE: Series show monthly data smoothed as three-year trailing averages. Earnings per share (EPS) are calculated by dividing the stock price index by the price-earnings ratio. The annual rate of change is measured relative to the corresponding month in the previous year. Differential EPS growth is calculated by subtracting the EPS growth rate of the world index from the EPS growth rate of the integrated oil index. The last data points are for October 2014.

SOURCE: Datastream (series codes: TOTMKWD(PI) and TOTMKWD(PE) for the price index and price-earnings ratio of all listed firms, respectively; OILINWD(PI) and OILINWD(PE) for the price index and price-earnings ratio of all listed integrated oil firms, respectively).

All in all, then, our proxy for differential profits in Figure 5 is very different from the one we use in Figure 4. Yet the stylized patterns – as well as the exceptions to these patterns – are almost exactly the same!

Similarly to Figure 4, the chart shows that, since 1976: (1) all energy conflicts were preceded by the world's integrated oil companies suffering differential *d*ecumulation (with the exception of the 2011 Arab Spring / outsourced wars and the 2014 third Gulf War, when differential accumulation was very close to zero, but still positive); (2) all conflicts were followed by the integrated oil companies shifting to differential accumulation; and (3) except for the mid-1990s, the integrated oil companies have never managed to beat the average without a prior energy conflict.<sup>34</sup>

## 6. The universal logic

These stylized patterns appear almost too simple, not to say simplistic – particularly when compared to sophisticated explanations of Middle East wars. And maybe this is their beauty.

The experts on this subject – whether conservative or radical, Marxist or postist, materialist or culturalist, international relationsist or regional punditist – are undoubtedly right. The Middle East defies any simple logic – or at least that's what the rulers want us to think. No determinism can account for its cultural subtleties, no structural theory can explain its multilayered conflicts, no Eurocentric text can decipher its poststructural discourses. It is simply special.

And yet, somehow, this kaleidoscope of complex specificities gets enfolded, figuratively speaking, into the universal logic of modern capitalism: the differential accumulation of capital.<sup>35</sup> In the Middle East, we have argued, this process revolves around oil profits:

Obviously, the flow of arms to the region [and its associated conflicts] is anchored not in one particular cause but in the convergence of many: internal tensions [such as those leading to the Arab Spring], inter-state confrontations [for example, the 1980-88 Iraq-Iran War], conflicts between coalitions of countries [the first, second and third Gulf Wars], superpower intervention [a permanent feature], radical and anti-radical ideologies [the 1979 Iranian revolution, ISIS, etc.], nationalism [the Palestinian intifadas], clericalism [Iran, Egypt, Afghanistan, etc.], economic turbulence and business cycles [the unsatiated capitalist thirst for 'cheap energy']... Yet, one way or another, these processes can be seen as already engulfed by and absorbed into the massive flow of the biggest prize of all: *oil profits*. (Nitzan and Bichler 2007: 376, translated from the Hebrew)

Our analysis of this process has focused on the Weapondollar-Petrodollar Coalition of the largest armament contractors and integrated oil companies, OPEC and various branches of Western governments. All members of the coalition, we've argued, share an interest in regional

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<sup>34</sup> Figure 5 would look virtually the same – and would lead to the exact same conclusions – if instead of the integrated oil companies we used the oil and gas sector as a whole. As noted in footnote 19, while the two groupings differ in overall size, their EPS measures are almost perfectly correlated.

<sup>35</sup> The notion of 'enfoldment' is beautifully articulated by Bohm (1980) and Bohm and Peat (2000).

tensions. But when it comes to *open* hostilities and war, the balance tends to hang on the oil companies:

The large oil companies and the leading arms makers both gained from Middle East 'energy conflicts' – the first through higher conflict premiums and the latter via larger military orders. But beyond this common interest the position of these groups differed in certain important respects. . . . Overall, 'energy conflicts' tended to boost arms exports both in the short-run and long-run, and given that the weapon makers have had an open-ended interest in such sales . . . their support for these conflicts should have been more or less unqualified. For the Petro-Core, however, the calculations are probably more subtle. . . . [T]he effects on their profits of higher war-premiums would be positive only up to a certain point. Furthermore, the outcome of regional conflicts is not entirely predictable and carries the inherent danger of undermining their intricate relations with host governments. For these reasons, we should expect the large oil companies to have a more qualified view on the desirability of open Middle-East hostilities. Specifically, as long as their financial performance is deemed satisfactory, the Petro-Core members would prefer the status quo of tension-without-war. When their profits wither, however, the companies' outlook is bound to become more hawkish, seeking to boost income via a conflict-driven 'energy crisis'. (Nitzan and Bichler 1995: 497)

Unfortunately for most subjects of the Middle East – and for the vast majority of the world population – the empirical regularities of energy conflicts and differential profits we have teased out of this hypothesis remain as true today as they were in the early 1970s.

Looking backward, these regularities helped us explain the history of the process till the late 1980s. Looking forward, they allowed us to predict, in writing and before the event, the 1990-91 first Gulf War as well as the 2001 invasion of Afghanistan and the 2002 onset of the second Gulf War.<sup>36</sup>

We have not predicted the recent spate of energy conflicts – but only because our research over the past decade has carried us away from the Middle East. The logic of our argument, though, remains intact. As Figures 4 and 5 show, any researcher who would have updated our data could have predicted, ahead of time, the 2011 Arab Spring and its associated outsourced wars, as well as the 2014 third Gulf War against ISIS.

## **7. The broader vista**

The Middle East dramas, though, are themselves part of a bigger story. So far, we have shown that these dramas – the conflicts and wars, the oil crises and inflicted 'scarcities', OPEC's machinations and outside interventions, terrorism and nationalism, religion and culture – could be enfolded into the stylized link between energy conflicts and differential oil profits. But there is an even broader enfoldment to consider: the way in which this oil link fits the larger picture of global accumulation. Needless to say, this latter enfoldment is not easy to articulate, certainly

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<sup>36</sup> See Bichler, Rowley and Nitzan (1989: Section 2.3) for a prediction of the first conflict and Bichler and Nitzan (1996: Section 8) for a prediction of the second.

not on the fly, so our outline below should be read as tentative and suggestive rather than definitive and exhaustive.

### **7.1 Reversals of fortune**

Begin with a bird's-eye view of the differential oil profits and the energy conflicts depicted in Figures 4 and 5. The history of this process can be divided into three rough periods:

1. *Late 1960s – early 1980s.* During this period, the oil companies tended to beat the average. There were only a few 'danger zones', and each zone was promptly followed by an energy conflict – or a string of conflicts – causing differential profits to quickly flip back into positive territory.
2. *Mid 1980s – late 1990s.* During this period, the oil companies tended to trail the average. With the exception of one energy conflict (the first Gulf War), 'danger zones' lingered with no relief in sight, causing the oil companies to suffer from protracted differential *decumulation*.
3. *Early 2000s – present.* In this period, the oil companies have again taken the lead. Their differential profits have risen to record highs, having been boosted by frequent energy conflicts that seem to erupt at the mere suggestion of differential *decumulation*.

### **7.2 Breadth and depth**

Now, as noted in Section 3 above, dominant capital as a whole tends to oscillate between two main regimes of differential accumulation: breadth and depth. Breadth is driven largely by mergers and acquisitions, while depth is fuelled mostly by stagflation. And what is remarkable for our purpose here is that, since the late 1960s, these regimes seem to *coincide* with the ebb and flow of energy conflicts and differential oil profits.

Figure 6 shows the long-term movements of corporate amalgamation and stagflation in both the United States and the United Kingdom. Amalgamation is proxied by the 'buy-to-build' ratio, plotted against the left log scale. This ratio measures the magnitude of mergers and acquisitions expressed as a per cent of gross fixed capital formation (the first magnitude denotes the money spent on buying existing assets, while the second measures the money spent on building new assets, so dividing the former by the latter yields the 'buy-to-build' ratio).<sup>37</sup>

Stagflation, plotted against the right scale, is a synthetic index. It averages the standardized deviations of unemployment and inflation from their respective historical means. The average value of this index for the whole period is zero, by definition. Positive values indicate above-average stagflation, while negative values represent below-average stagflation.<sup>38</sup>

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<sup>37</sup> The first version of this figure – for the United States only – appeared in Nitzan (2001: Figure 9, p. 260). Joseph Francis' meticulous research (2013) corrected an error in our original buy-to-build data for the United States, revised and updated these data till 2012 and provided the first ever long-term estimates for the United Kingdom. For a discussion, see Bichler and Nitzan (2013). Francis' data and computation are available here:

[http://bnarchives.yorku.ca/381/03/20131000\\_francis\\_the\\_buy\\_to\\_build\\_indicator\\_data.xls](http://bnarchives.yorku.ca/381/03/20131000_francis_the_buy_to_build_indicator_data.xls).

<sup>38</sup> Contrary to conventional belief, stagflation is anything but an anomaly. In modern capitalism, it is in fact the rule rather than the exception. To see why this is so, note that capitalist societies always operate with greater or lesser slack (just think of Marx's 'reserve army of the unemployed' or the monetarist/new-classical 'natural rate of unemployment'). In other words, capitalist societies always stagnate relative to their full potential, so, technically speaking, inflation always appears in the midst of stagnation – i.e., as *stagflation* (Nitzan 1992: Ch. 7; Nitzan and Bichler 2009a: Ch 16).

Figure 6 shows that, since the 1920s, in both the United States and the United Kingdom, corporate amalgamation and stagflation have tended to move counter-cyclically: when one measure rises, the other recedes, and vice versa. Moreover, the counter-cyclical patterns in the two countries are remarkably similar.<sup>39</sup>

Although research on this topic is still in its infancy, the remarkable similarities between these two leading political economies suggest that breadth and depth regimes might be a fairly universal – and perhaps increasingly synchronized – phenomenon in modern capitalism.<sup>40</sup> And insofar as this phenomenon is increasingly universal, it might serve to explain the larger role of energy conflicts and differential oil profits.

### **7.3 Energy conflicts and stagflation**

As we can see in Figure 6, merger activity peaked around the late 1960s before tipping into a free fall that lasted till the early 1980s. This retreat from amalgamation forced dominant capital to rely on rising stagflation, and the main engines of this stagflation were tensions and energy conflicts in the Middle East.

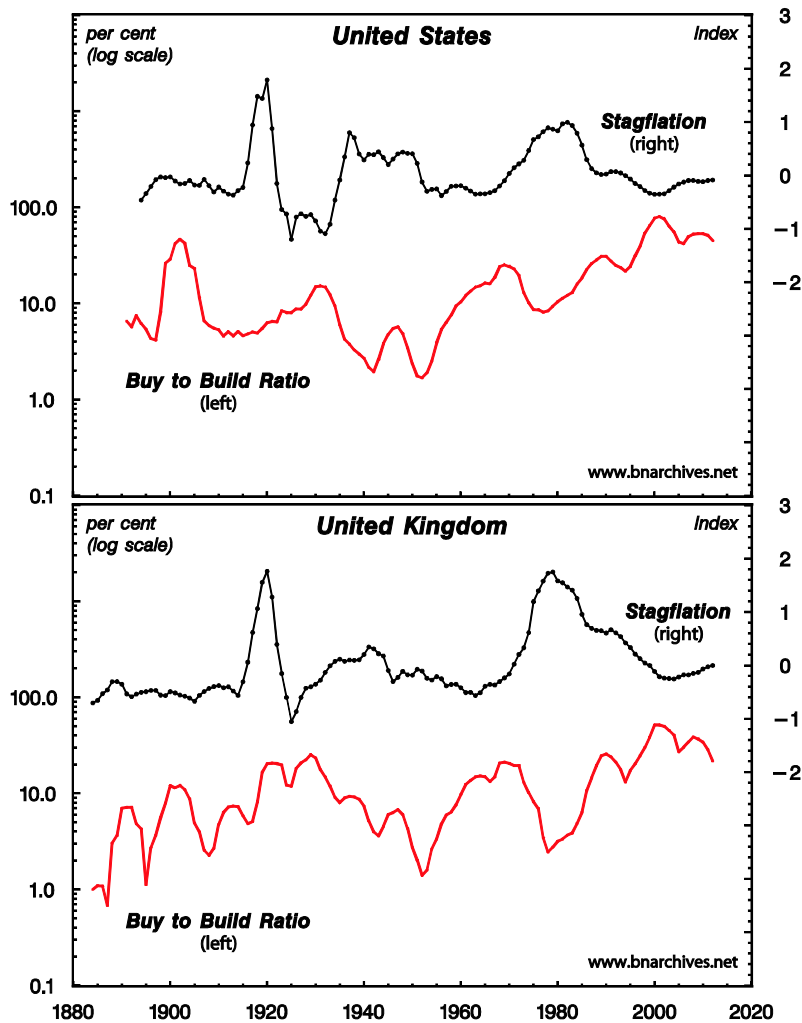
The crucial link in this process was provided by oil prices. Like many capitalist phenomena, broad-based inflation (read stagflation) often requires a trigger, and during the period in question this trigger was rising oil prices. The connection between oil prices and inflation is illustrated in Figure 7. The chart juxtaposes the 'real' price of crude oil on the left scale and the rate of consumer price inflation in the advanced countries on the right (monthly data smoothed as 12-month trailing averages). It also identifies three distinct periods, based on the changing correlation between the two series.

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<sup>39</sup> The tight correlations between the two countries are shown in Bichler and Nitzan (2013: Figures 3 and 4, p. 77).

<sup>40</sup> For other studies of breadth and depth, see Nitzan and Bichler (2002) on Israel, Park (2013, 2015 forthcoming) on South Korea, and Brennan (2014) on Canada.

**Figure 6:** Amalgamation and stagflation

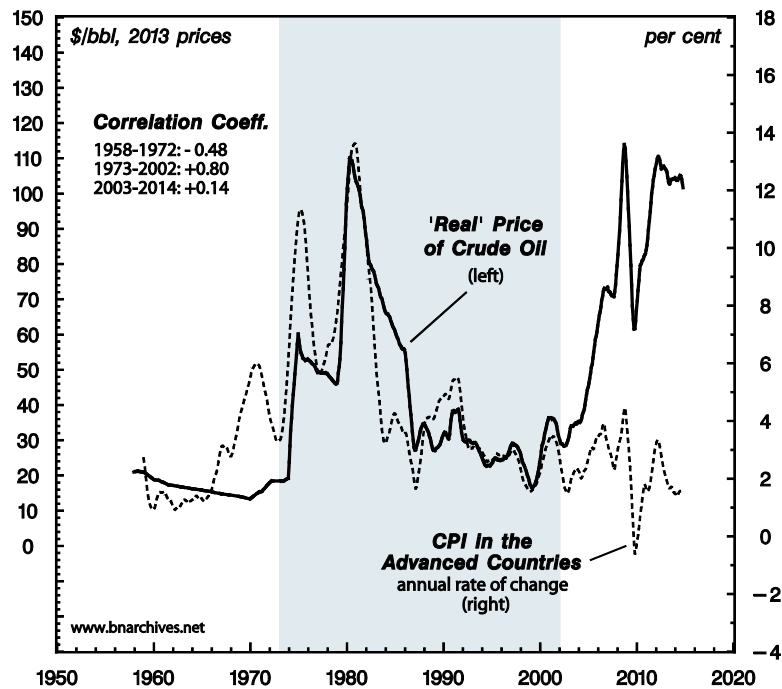


NOTE: Series show annual data smoothed as five-year trailing averages. The buy-to-build ratio denotes expenditures on mergers and acquisitions expressed as a percentage of gross fixed capital formation. Stagflation is the average of: (1) the standardized deviations from the average of the rate of unemployment; and (2) the standardized deviation from the average rate of inflation of the GDP implicit price deflator. The deviations were standardized by deducting from each year the arithmetic mean of the series over the whole period, then dividing the result by the same arithmetic mean. The last data points are for 2012.

SOURCE: Joseph Francis, *The Buy-to-Build Indicator: New Estimates for Britain and the United States*, *Review of Capital as Power*, 2013, Vol. 1, No. 1, pp. 63-72.



**Figure 7:** 'Real' Oil Prices and CPI Inflation in the Advanced Countries



NOTE: Series show monthly data smoothed as 12-month trailing averages. The 'real' price of crude oil is the dollar price deflated by the U.S. CPI. The last data points are September 2014 for CPI inflation and October 2014 for the 'real' price of crude oil.

SOURCE: IMF International Financial Statistics through Data Insight (series codes: L76AA&Z@C001 for the average price of crude oil; L64@C111 for the U.S. CPI; L64@C110 for the CPI of the advanced countries).

Until the early 1970s, the correlation was largely negative. Inflation fell and rose, but its fluctuations must have been driven by something other than the 'real' price of oil, which remained relatively stable. This indifference ended in 1973. From 1973 to 2002, the two series were tightly and positively correlated (Pearson coefficient of 0.8). During the 1970s, the 'real' price of oil soared and inflation rose sharply with it. And when 'real' oil prices collapsed in the 1980s and continued to fall through much of the 1990s, inflation decelerated in much the same way. During the most recent period, from the early 2000s to the present, this positive correlation loosened considerably; but then, that already puts us ahead of our story.

## **8. Middle East energy conflicts and differential accumulation cycles**

With this link in mind, we can now begin to connect the specific patterns of Middle East energy conflicts with the broader differential accumulation cycles of depth and breadth.

### **8.1 The rise of stagflation (late 1960s – early 1980s)**

During the late 1960s, dominant capital in the advanced countries started to shift from breadth to depth (Figure 6). By the early 1970s, the merger wave was receding rapidly, and as amalgamation weakened, stagflation picked up. The main trigger for the latter process was the

build-up of Middle East tensions and the eruption of energy conflicts (Figures 4 and 5). Tension and war fuelled the differential profits of the oil companies. And in the absence of amalgamation, these conflicts, which stalked overall inflation in the midst of stagnation (Figure 6), also helped dominant capital as a whole beat the overall average.

The convergence of these power processes during the 1970s and early 1980s gave an enormous boost to the Weapondollar-Petrodollar Coalition. The oil companies and the armament contractors, OPEC and key elements of Western governments – and now also dominant capital more broadly – all had an interest in rising oil prices. Under these circumstances, it is perhaps not surprising that energy conflicts were so frequent and that the differential profits of the oil companies were rarely allowed to fall into negative territory.

### **8.2 The resurgence of amalgamation (mid 1980s to late 1990s)**

The 1980s brought a sharp reversal. Neoliberalism was in full swing, and with communism soon to disintegrate, the entire world was opening up for dominant capital. Merger and acquisition activity was now going global and by the early 1990s was already testing new records (Figure 6). The flip side was that dominant capital now lost all of its previous appetite for stagflation (Figure 6). Economic growth appeared to have resumed and inflation dropped sharply.

At this point, the Weapondollar-Petrodollar Coalition went out of favour. Although the coalition itself was still interested in high oil prices, the rest of dominant capital wasn't. This cleavage within the ruling classes reflected on the Middle East. In contrast to the previous stagflationary period, energy conflicts were now few and far between, and the differential profits of the oil companies seemed stuck in negative territory with no sign of reversal (Figures 4 and 5).

### **8.3 Systemic crisis (early 2000s to present)**

The early 2000s were marked by the rising threat of systemic crisis.<sup>41</sup> For the first time since the Great Depression of the 1930s, dominant capital, particularly in the advanced capitalist countries, seems to have confronted the asymptotes of its power.<sup>42</sup> At the household level, the income and asset shares of the top segments of society are now approaching record levels. At the aggregate level, the share of net profit in national income is reaching historical highs. And at the corporate level, the leading firms have grown so much that their profits and capitalization are now many *thousands* of times bigger than those of the average firm.<sup>43</sup> These distributional gains attest to the peak power of capitalists in general and dominant capital in particular. But they also indicate that extending this power – or simply sustaining it – is becoming more and more difficult.

One symptom of this difficulty is the deceleration of corporate amalgamation. Compared to its 2000 record, the buy-to-build ratio is now one-third lower in the United States and nearly two-thirds lower in the United Kingdom (Figure 6). Like in the 1970s, dominant capital has reacted to

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<sup>41</sup> For analyses and debate, see Bichler and Nitzan (2008a, 2009), Nitzan and Bichler (2009b) and Kliman, Bichler and Nitzan (2011).

<sup>42</sup> For a detailed examination of these asymptotes in the United States, see Bichler and Nitzan (2012a).

<sup>43</sup> For the personal distribution of income and assets, see Piketty (2014); for the aggregate share of profit, see Bichler and Nitzan (2012a: Figure 11, p. 41 and Figure 13, p. 44); for the differential earnings of dominant capital, see Nitzan and Bichler (2014: Figure 14, p. 143).

this deceleration by trying to switch gears from amalgamation to inflation (i.e. stagflation).<sup>44</sup> But this time it isn't alone. In the 1970s, small and medium-sized firms were hostile to inflation, as were policymakers. Not anymore. Nowadays, capitalists and policymakers are scared of deflation, and for good reason. Given the asymptotic outlook for further pro-capitalist redistribution, equity and debt prices seem increasingly 'overcapitalized' relative to their expected earnings and underlying national incomes, and the last thing overcapitalized assets can withstand is a significant bout of deflation. The net result is that, unlike in the 1970s, the present pro-inflation coalition is much more broadly based. It encompasses not only the Weapondollar-Petrodollar Coalition and dominant capital as a whole, but also many governments and the multitude of medium and small capitalists who all yearn for some 'healthy' inflation to ease their deflationary fears.

This constellation seems consistent with the new flare-up of Middle East energy conflicts. With so much hanging on higher inflation, and given the historical role of oil prices as the 'spark' that sets inflation going, it is obvious that tension and war in the region would be more than welcome by everyone who stands to benefit from such inflation. And since the interested parties comprise some of the most powerful groups in the world, it shouldn't surprise us to see the oil companies again flying high and the region once more erupting in flames (Figures 4 and 5).

## 9. An omen?

But there is a big fly in the ointment. As Figure 7 shows, over the past ten years or so, the positive link between oil prices and overall inflation seems to have weakened considerably. Between 2003 and 2014, the Pearson correlation coefficient of the two series fell to a feeble 0.14. The short-term movements are still in the same direction, so upticks in the 'real' price of oil are closely matched by upticks in inflation; but the long-term trends are clearly opposite: while 'real' oil prices have moved upward, inflation has slid.<sup>45</sup> In other words, if conflict-driven oil prices are to reignite worldwide inflation, they would have to rise to levels far beyond their recent record.

This simple observation could prove ominous for the Middle East and the world more generally. In 1956, the Japanese political economist Shigeto Tsuru (1956) examined the role of U.S. military spending as an 'offset to savings', a way of absorbing the country's rising 'surplus'. Military expenditures, he observed, already amounted to 10 per cent of GDP, and if that level were necessary for economic prosperity, he continued, in ten years' time the United States would have a defence budget far too large for peacetime: 'We must say (and we should like to say for the sake of world peace) that it is rather questionable if the United States can spend on defense as much as 16 billion dollars more than today in 1968' (p. 28). Given that in 1966, exactly ten years later, the United States was deeply entangled in the Vietnam War, this must have been one of the most brilliant if sombre predictions in the social sciences.

The present divergence between 'real' oil prices and inflation depicted in Figure 7 may constitute a similar omen. The third Gulf War with ISIS might be the beginning of a new round of Middle East energy conflicts. But that is just the first step. In the past, energy conflicts have led to higher 'real' oil prices, which in turn boosted differential oil profits, and this second step is yet

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<sup>44</sup> For more on this transition from breadth to depth, see Bichler and Nitzan (2004), Nitzan and Bichler (2006) and Bichler and Nitzan (2008b).

<sup>45</sup> While the correlation between inflation and the *level* of 'real' crude oil prices dropped to a negligible 0.14, the correlation between inflation and the *rate of change* of 'real' crude oil prices remains high at 0.78.

to happen. In fact, despite the hostilities, oil prices have *retreated* sharply from their 2013 record.<sup>46</sup>

There is of course no inherent reason why the stylized patterns presented in this paper must continue to hold in the future. But if they do – in other words, if the world continues to flirt with deflation and the Petro-Core with differential *decumulation*, and if rising oil prices remain crucial for boosting overall inflation and the oil companies' differential *accumulation* – violence and conflict in the Middle East might need to intensify significantly in the years to come.

### **Appendix: What do economists know about scarcity?**

According to standard economic theory, commodities are not 'scarce' or 'abundant' as such.<sup>47</sup> They are scarce or abundant in relation to the 'desires' of sellers and buyers. When the desire to buy at a given price (i.e., the 'quantity demanded') exceeds the desire to sell at that price ('quantity supplied'), economists denote the difference as 'excess demand'. If the opposite situation prevails, they call it 'excess supply'.

For example, if the price of oil is \$100/barrel, and if at that price buyers around the world wish to buy a total of 80 million barrels/day while sellers want to sell only 75 million, the result is an 'excess demand' of 5 million barrels/day. This positive difference means that, given the price of oil and the prevailing preferences of buyers and sellers, oil is 'scarce'. However, if the desires were different – for example, if at \$100/barrel buyers wanted to buy only 80 million barrels/day while sellers wished to sell 82 million – we would have an 'excess supply' of 2 million barrels/day. In this situation, oil would be deemed 'abundant'. Moreover, different prices imply different desires to sell and buy, making the same commodity scarcer or more abundant, as the case may be.

Now, economists manipulate these magnitudes with great ease – but only conceptually. When it comes to empirical analysis, their hands are tied. And they are tied by the embarrassingly simple fact that they know nothing about the *actual* desires of sellers and buyers. Needless to say, this ignorance is fatal. It makes it impossible for economists to measure the levels of demand and supply, let alone which exceeds which and by how much. And as long as they don't know whether the commodity – be it oil, automobiles, software or anything else – is in excess supply or excess demand, they have no clue as to whether it is scarce or abundant.

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<sup>46</sup> Most analyses of this decline seem to replicate the explanations of the sharp price rise of the 1970s – only in reverse (see footnote 25). Some, like Daniel Yergin (2014), swear by the 'old-fashioned forces of supply and demand', stating that while 'there may be surplus of geopolitical risk in the world, there is an even greater surplus of oil'. Others, such as Rafael Ramirez, Venezuela's foreign minister and the former head of state oil company PDVSA, focus on geopolitics. The recent drops, he argues, occurred 'not due to market fundamentals, but to price manipulation to create economic problems among major producing countries' (Rathbone, Rodrigues, and Schipani 2014). The main culprit is Saudi Arabia. According to this view, the Saudis, possibly with a nod from the United States, have orchestrated a 'new oil-price war'. One effect of this price war is to clip the wings of U.S. shale-oil firms whose booming production challenges the Saudis' primacy. Naturally, this impact doesn't make Washington happy. But according to proponents of this argument, that is a small price to pay in exchange for the havoc inflicted by lower oil prices on America's current enemies – namely Russia, Iran and Venezuela – and for having the world economy stimulated by a lower 'oil tax' (Dyer and Crooks 2014; Lucas and McLannahan 2014). Astute commentators are careful to note the deflationary impact of lower oil prices, but this 'mixed blessing' rarely makes it to the front page.

<sup>47</sup> In this and the following paragraph we again use inverted commas to highlight concepts we find problematic (see footnote 2).

Interestingly, most economists seem undeterred by this ignorance. In their everyday analyses, they simply assume that 'what we see is what we get'; or, in economically correct lingo, that the quantities that agents buy and sell are equal to – and therefore 'reveal' – their underlying preferences.<sup>48</sup> In practical terms, this assumption allows analysts to measure production as if it were supply and consumption as if it were demand.<sup>49</sup> And since the observed levels of consumption and production are presumed equal to the (unknown) desires of buyers and sellers, the difference between those levels – which to the naked eye appears as a shortfall or build-up of inventories – is equated with excess demand (scarcity) or excess supply (abundance), respectively.<sup>50</sup>

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<sup>48</sup> Early neoclassicists such as Stanley Jevons and Alfred Marshall admitted quite openly that wants, desires and satisfaction cannot be observed, let alone quantified; but they insisted on using them nonetheless, lest the whole edifice of their utilitarian economics comes down crashing (Jevons 1871: 11; Marshall 1920: 78; Nitzan and Bichler 2009a: 128-130). This insistence was later formalized by Paul Samuelson's concept of 'revealed preferences' (1938) – the idea that it is perfectly OK for economists to use reality to explain preferences instead of the other way around (Nitzan and Bichler 2009a: Ch. 5).

<sup>49</sup> A Google image search for phrases such as '[petroleum demand](#)' or '[supply of oil](#)' yields countless empirical charts. The series in the charts are labelled 'demand' and 'supply', but these titles are deeply misleading: their data measure not the *desires* of buyers and sellers as the theory mandates, but their *actual consumption and production*, which may have nothing to do with those desires, whatever they are.

<sup>50</sup> (This footnote is meant for the economically initiated.) In practice, the observed depletion/build-up of inventories consists of two components: intended and unintended. When the intended component is zero, the depletion (build-up) is entirely unintended, by definition; and it is only then that the excess consumption (production) is equal to the excess demand (supply). However, since the desires of buyers and sellers are unknown, economists have no way of knowing which part of the inventory change is intended and which is unintended. And as long as the two components remain mingled, the accuracy of this scarcity proxy is impossible to assess.

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# A monetary case for value-added negative tax

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## Abstract

We address the most fundamental yet routinely ignored issue in economics today: that of distributive impact of the monetary system on the real economy. By re-examining the logical implications of token re-presentation of value and Irving Fisher's theory of exchange, we argue that producers of value incur incidental expropriation of wealth associated with the deflationary effect that new value supply has on the purchasing power of money. In order to remedy the alleged inequity we propose a value-added negative tax (VANT) based on net individual contribution to the economic output, which is structured as a negative tax function geared to profits derived from eligible productive activities in consideration of their estimated deflationary impact. We show that an adequately optimised VANT can be non-inflationary and have zero net cost to the public. Furthermore, economic output stands to improve due to direct incentivisation of value creation, making the proposed scheme not only politically feasible but economically desirable. The proposal advances the principle of 'fair money', where all forms of economic value are attributed to their rightful owners prior to any positive taxation.

**Keywords** Money Definition, Monetary Systems, Monetary Policy, Negative Income Tax, Theory of Exchange, Fair Money

**JEL Codes** E31, E40, E42, E51, E62, H23

## 1. Introduction

Negative tax proposals made in the past were commonly based on principles of social justice and welfare, seeking to alleviate poverty or mitigate inequality by imposing a tax burden on higher income earners (Rhys-Williams, 1953)(Friedman, 1962)(Dawkins et al., 1998). These were commonly structured as a negative intercept in the tax-function geared to income, causing a narrowing of the overall tax-base. While the rationale for such proposals is commendable on moral grounds it faces major economic and political challenges due to revenue constraint and wealth redistribution from the more productive members of society to those who are the least productive. This is in turn criticised for giving rise to broad disincentivisation of labour in favour of leisure (Roy, 1979)(Johnson & Pencavel, 1982)(Petersen, 1995).

The present proposal follows an entirely different rationale, based on the premise that wealth is signified in the economy by two distinct but interrelated forms, namely, the barter-value of goods and services and the monetary re-presentation of same. In a system where individual agents have inherent ownership rights with respect to the goods and services they generate but no inherent ownership rights with respect to the money supply that constitutes a universal claim on the former, the productive agents face incidental expropriation of wealth on account of the dependence that exists between the supply of goods and services and the purchasing power of money.<sup>1</sup> The alleged expropriation takes place whenever value is added to the economy, irrespective of whether the money supply expands, shrinks, or remains constant.

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<sup>1</sup>"Changes in money's purchasing power generate changes in the disposition of wealth among the various members of society"(Mises, 1996, p.421).

We will attempt to substantiate these claims further in the text but in order to meaningfully address the formerly under-theorised issue of distributive impact of the monetary system on the real economy we must first deconstruct some idiomatic terms of reference and give them proper logical grounding.

## 2. Money as re-presentation of value

Legal tender (which we will hereafter refer to simply as ‘money’ or ‘currency’)<sup>2</sup>, arguably one of the most significant expressions of human ingenuity, facilitates for exchange of goods and services without the inconvenience of matching two parties, each of whom would have to offer exactly what the other party wanted, with the added advantage of virtually unlimited portability over commodity money. Money received in exchange for value functions as a legally endorsed, fungible certificate that one side of a barter transaction has been accomplished and grants the party who had provided barter-value an instrument of entitlement to complete the barter via proxy.

Money is what cuts a barter transaction in half, hence the saying that ‘money cuts like a knife through barter’: each half of the transaction can be independently, wholly or partially reassembled with a mating half of any other barter transaction, making value transportable and infinitely divisible. But the transition from a barter-economy to the present system of mediated exchange has subtly altered the identity of value. It is generally accepted that money by fiat has no intrinsic value, but it would be an error to assume that it has no value at all, or that its value is simply a matter of individual agreement. For the inherently unique instances of barter-value (which we will hereafter refer to as ‘real-value’)<sup>3</sup> to become infinitely portable and divisible they must first be counted as a homogenous ‘commodity’ and then re-presented in the medium of exchange, that is, counted again in the meta-structure of value intended to signify, store and transmit the re-presentation until a direct presentation of equivalent real-value can be realised again. In that sense, the notion of monetary re-presentation combines the three functions of money: the ‘unit of account’ signifies the measure or count in the field of re-presentation, the ‘store of value’ records and maintains the count, and the ‘medium of exchange’ transmits the count. The unit of account is evidently not a fixed measure with respect to real-value as it depends on the changing number of units in circulation and on the frequency of circulation (we will consider these dynamic parameters in the next section), and thus the capacity of money to store and transmit value can be said to be temporally distorted. Specifically, there is an undeniable ontic discrepancy between the original presentation of real-value and the secondary presentation realised following a sale, monetary transmission, and a delayed act of re-acquisition of the same real-value: the result being either more or less of the originally presented ‘commodity’. Furthermore, since real-value does not cease to exist in its object-form on account of its monetary re-presentation, the notion of money as the store of value involves a double count of nominally the same identity of value: once at the object-level of goods and services where it remains intrinsically valuable, and once again at the meta-level of monetary re-presentation that purports to store its value.

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<sup>2</sup>‘Money’ means fiat-money and includes money-substitutes such as bank-issued credit that under most conditions perform the same function as banknotes and coins. It is deemed consistent with the definition of M3. ‘Currency’ means paper currency (cash), or a unit of account (Dollar, Euro etc.).

<sup>3</sup>‘Real-value’ includes goods and services that can be exchanged for money but are not themselves regarded as money. Real-value does not signify a uniform measure of value but the very items that are *commonly identified as economically valuable and tradable*, and in that sense can also be referred to as barter-value. The ‘flow’ of real-value (or the volume of trade) is signified by the variable T in Irving Fisher’s equation of exchange.

This is akin to a paradoxical situation where a valuable item stored at the company's warehouse is, simultaneously, at the home of one of its employees who happens to enjoy its exclusive use.

The paradox is of course only apparent, arising in the absence of a functional distinction between object- and meta-levels of value, between presentation and re-presentation functioning beside one another. The medium of exchange, be it pure fiat or a commodity-backed money, is never neutral<sup>4</sup> but functions as a double, as a measure of value that is simultaneously presented as equal in value to that which is measured, in excess of any intrinsic value that the medium might possess. It is precisely this mirroring effect of monetary re-presentation, this nominal doubling-up of value, that functions beside instances of direct presentation and thus ambiguates the identity of the re-presented, that is, it imitates and therefore devalues the real. It is important to note that the surplus effect of re-presentation occurs independently of any dynamic parameters (such as monetary expansion) or formal redistribution (taxation): money functions as a double of real-value by virtue of its mere presence as the medium of exchange.

In the absence of a corrective intervention to re-assert the scope of identity and ownership of an original presentation, being the act of creation of real-value, the nominal value spreads evenly over the particular good and the aggregate money supply. But since the money supply is never wholly in possession of the maker of the good, the associated value is split between the original owner of the good and the incidental holders of money who, on account of the incidental nature of the relationship, have no equitable claim on the property of another. The resulting distribution of value is therefore deemed inequitable.

Given that the value re-presented by money – or simply, the 'value of money' – is derived from the aggregate real-value of goods and services on which it lays a claim,<sup>5,6</sup> it is essential to consider the mechanism of transference between these two distinct manifestations of value and quantify their relationship before an equitable system of value-exchange, or 'fair money', can be developed.

### **3. Theory of exchange and incidental expropriation of value**

The following analysis of the theory of exchange is by no means inclusive of countless real-world factors and interdependencies and has no aspirations to modelling precision, but is intended only to demonstrate a principle. It is sufficient for our purposes to show that producers of value incur, or are likely to incur, incidental expropriation of wealth associated

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<sup>4</sup>"The important thing to be remembered is that with every sort of money, demonetization – i.e., the abandonment of its use as a medium of exchange - must result in a serious fall of its exchange value"(Mises, 1996, p.429). Based on this remarkable insight we can infer that even commodity money does not constitute a neutral measure of real-value because its monetisation is already an act of economic redistribution. In effect, commodity money is in greater demand and therefore of greater exchange value as money than as a simple commodity, while all real-value that is normalised and measured thereby is, by the same token, proportionally devalued. In that sense, commodity money, even though relatively inelastic with respect to supply, can be said to have a fiat component insofar as it is capable of re-presenting value in excess of its intrinsic value.

<sup>5</sup>"The exchange-value of the total quantity of money exchanged equals that of the goods for which it exchanges"(Fullbrook, 2002).

<sup>6</sup>"...money and goods are not the same thing but are, on the contrary, exactly opposite things. Most confusion in economic thinking arises from failure to recognize this fact. Goods are wealth which you have, while money is a *claim on wealth* which you do not have"(Quigley, 1966, p.44).

with the positive impact of real-value creation on the purchasing power of money, presenting an economic argument for negative taxation in favour of producers.

As the supply of goods and services in the economy increases, the buying power of money must also increase, irrespective of whether it is intrinsically worthless money-by-fiat or commodity-backed money, given that the money supply remains constant or grows slower than the supply of tradable value. Conversely, “assuming a constant rate of use, if the volume of money grows more rapidly than the rate at which the output of real goods and services increases, prices will rise”(Nichols & Gonczy, 1994). So dictates the Quantity Theory of Money formulated by Irving Fisher (Fisher, 1920) as an idealisation derived from his equation of exchange, which is in turn regarded by some as a truism of the relationship between money, prices and the quantity of goods and services traded within a period of time (Mishkin, 2004, pp.518-19). Fisher’s equation of exchange may be written as follows:

$$\mathbf{M.V = P.T}$$

where **M** is the total money supply in circulation (cash plus checkable liabilities of banks)<sup>7</sup>, **V** is the velocity of money, **P** is the weighted average of all prices, or the price level, and **T** is the total quantity of goods and services traded (the volume of trade).<sup>8</sup> **M.V** is therefore the total volume of monetary transactions within a period of time (one calendar year was suggested by Fisher) and **P.T** is the market capitalisation of all real-value traded. This ostensibly tautological expression is in fact demonstrative of the phenomenon of monetary doubling in excess of real-value, of the re-presentation of value (meta-level) circulating beside and on par with the re-presented (object-level).

We favour the definition of **V** advanced by Howden (2013): “velocity is the ratio of total expenditures to the stock of money available to settle transactions.” But since **V** is “the lone unobserved variable in the equation of exchange (...) any reckoning of money’s velocity of circulation must be made in a roundabout way” (Ibid.), giving rise to controversy about its economic significance. The equation of exchange obviously does not incorporate secondary dependencies between variables and does not tell us, for example, how an increase in the money supply would affect velocity, but the absence of that information does not undermine the essence of our thesis. What is relevant to the problem at hand (a possible objection to our proposal) is that when the supply of goods and services increases while the money supply remains constant, it is theoretically possible that the effect would be a proportional increase in the velocity of money and no change in prices whatsoever. But for a change in velocity to have long-term significance it would need to be either permanent or have permanent secondary effects; not merely episodic or stochastic fluctuations about a relatively stable mean. If the said change were only temporary, the effect (of an increase in the supply of goods and services) on prices would eventually become fully manifested. We suggest that the supply of money is cumulative, being altered only when amounts are added to or subtracted

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<sup>7</sup>**M** in the equation of exchange is commonly equated with the M2 measure of aggregate money supply for purposes of policy making (Dewald, 1998)(Shirvani & Wilbratte, 2008)(Mishkin, 2004, p.374). M3 (Australia) and M2 (U.S.) are recognised as better measures of monetary expansion than M1 on account of liquidity discrepancy that exists between typical fixed-term deposits and long-term credit contracts such as mortgages. When long-term credit is ‘funded’ with progressive, short-term deposits, there is no strict transfer of purchasing power from depositors to the debtor, namely, the velocity of deposited funds is not zero due to their intermittent availability. Since the bulk of current deposits (M1 minus currency) is also used only intermittently there is little difference in velocity between short fixed-term deposits and current deposits.

<sup>8</sup>(Fisher, 1920, pp.26-27)

from the relatively<sup>9</sup> 'inert' supply already distributed throughout the economy, while the velocity of money is 'absolute', lacking the inert component and therefore potentially more volatile in a short-term, but also lifestyle-dependent and therefore relatively stable in a long-term. This inference is supported by the fact that the rate of change in velocity over the last thirty years has been an order of magnitude lower than the rate of change in the broad money supply (Cagliarini et al., 2010, p.19)(Shirvani & Wilbratte, 2008). Furthermore, the likelihood of velocity increasing in strict proportion to the rate of economic output is refuted by experience: prices are indisputably affected no less than velocity and tend to respond in a countercyclical manner to changes in the economic output.<sup>10</sup> It would be an extraordinary situation if prices were to rise under the conditions of a fixed money supply and a growing supply of goods and services.

In consideration of the above we can abandon the variable **V** and, instead, balance the equation with a constant (**k**). We have thus reduced the equation of exchange to an idealised form consistent with the Quantity Theory of Money:

$$\mathbf{M} = \mathbf{P} \cdot \mathbf{T} \cdot \mathbf{k}$$

In other words, if the velocity of money over a particular period of time remains constant (a business-as-usual scenario), any variation in the available money supply (**M**) must be associated with a proportional change in the monetary value of goods and services (**P.T**). This change must be in turn accommodated by a change in the price level (**P**), if the quantity of goods and services traded remains constant; or by a change in **T**, if the price level remains constant.

The consequences of such interdependence with respect to individual economic activity can be summarised as follows. When a producer creates new value and makes it available for trade he/she inadvertently increases the purchasing power of money, whereby a certain amount of money can be added to the economy without causing price inflation: the absolute deflationary effect of the new goods and services balances the absolute inflationary effect of the new money. It follows that when prices remain steady under conditions of positive economic growth, the deflationary effect of newly created value is not absent but only masked by the inflationary effect associated with the expanding money supply.<sup>11</sup> The key consideration is that any upward pressure on prices is offset by individual contributions to the economic output. Given that changes in the money supply are meticulously recorded for the purpose of economic management, it is technically possible to quantify the deflationary impact of any productive activity irrespective of the nominal inflation.

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<sup>9</sup> Since broad money is mostly unbacked credit, its supply could conceivably contract if banks had persistently restricted the availability of new credit, in which case there would be a gradual contraction of the money supply over the lifespan of existing credit contracts (deposits being used to pay off debts). The only conceivable situation where rapid contraction of broad money could take place is that of a total collapse of the banking system, in which case the money supply would shrink to M0.

<sup>10</sup>“Historically, the supply of goods and services has usually increased every year. To the extent it does so, this increase in the demand for money will tend to lower prices over a period of time. Indeed, so powerful has this force been for lowering prices, that they fell from the mid-eighteenth century until 1940, with the only exception being during periods of major wars (...). Paper money was increasing the money supply during this era, but increases in M were more than offset by the enormous increases in the supply of goods produced during the Industrial Revolution in an unprecedented period of economic growth”(Rothbard, 2008, p.60).

<sup>11</sup>“If an inflationary movement and a deflationary one occur at the same time or if an inflation is temporally followed by a deflation in such a way that prices finally are not very much changed, the social consequences of each of the two movements do not cancel each other. To the social consequences of an inflation those of a deflation are added”(Mises, 1996, pp.417-18).



It is necessary to assume, in the absence of any substantive legal claim to the contrary, that the producer has an exclusive claim on the entirety of value created in the act of production until some or all of that value is intentionally transferred to another, subject to a full disclosure of terms pertaining to such a transfer. It follows that by creating something of value and offering it for trade<sup>12</sup>, the producer gains an equitable claim on some of its monetary representation as well. If the producer is not compensated accordingly, he suffers a loss, because by increasing the purchasing power of money, he gave other holders of the same currency a collective claim against his newly created value. That is, the producer has simultaneously created real-value that he holds in possession and a claim against that value being held cumulatively by the entire economy: the increase in the purchasing power of money constitutes a relative gain in wealth for all other agents in the economy in proportion to their monetary assets, irrespective of any direct or implicit contributions to the underlying process of production. The producer is therefore entitled to claim the increase in the value of currency before any subsequent sale could be deemed equitable. The same consideration extends to the division of labour in the process of production, where individual contributions are generally independently quantified in monetary terms.<sup>13</sup>

Let us consider the following example. Assuming that over a certain period of time the total volume of trade (**T**) is equal to the entire stock of real-value which consists of 10 apples, so that each apple is sold only once, and the total volume of monetary transactions (**M**) is equal to the aggregate money supply of \$10, so that each dollar is spent only once, then the theoretical market price (**P**) of an apple is \$1. The total wealth (all goods and money in existence) is equal to 20 apple-units of value: 10 units of real-value plus 10 units of representational value that constitutes a monetary claim on the apples. If someone now produces 10 additional apples, whereby the augmented total wealth comes to consist of 20 apples and the same \$10, and the producer attempts to sell these new apples, the average price of apples will tend to fall towards a new theoretical valuation of 50c an apple because, according to the Quantity Theory of Money, a doubling of the volume of trade must cause price deflation of 50% if the velocity would remain constant. In other words, the positive supply shock of new apples can be cleared only at a lower price level, or perhaps not cleared at all, what would be an even less favourable outcome for the producer. Consequently, if the prospective buyers are willing to absorb the supply shock at a new price level, the producer is only likely to receive \$5 for his new apples. The augmented total wealth now consists of 40 apple-units of value because it is not just the apples that have doubled in quantity but also the exchange-value of their monetary re-representation: \$10 now buys 20 apples. This last point is illustrative of the phenomenon of 'monetary doubling', which we have described so far only in abstract terms.

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<sup>12</sup> Newly created value does not need to be actually traded if it invokes a secondary signalling mechanism whereby prices of other goods or services are affected, and therefore the distinction between 'stock' and 'flow' of real-value is not a strict determinant of **T**. A curious borderline case is an owner-constructed dwelling which is not available for sale but is nonetheless subject to valuation-based property taxes and therefore *prima facie* deflationary. Furthermore, certain proportion of economic growth can be attributed to voluntary activities that forgo remuneration, and it is reasonable to assume that any secondary effects of such contributions are also contributed voluntarily. This may not be necessarily true but the examination of such complex entitlements falls outside the scope of the present investigation.

<sup>13</sup> We are not suggesting that economic value is determined exclusively by the 'amount' of labour performed in its production, as in the Labour Theory of Value, but simply that labour is one of the sources of value. A technological invention may, for example, become a valuable intellectual property even if there is no strict correlation between its economic value and the amount of labour directed towards its development.



Equitability of exchange may be assessed by comparing the distribution of wealth before and after the exchange in any given monetary system to the distribution that would occur under the barter system, because ultimately all trade is an exchange of real-value, whether it is a direct exchange of value for value or an indirect exchange of value via the medium of exchange. All equitable exchange must have no hidden remainder, no unaccounted-for gain or loss with respect to the valuable consideration forming the basis of an implied contract of exchange. Returning to our example, it is clear that in a barter economy the producer would have owned a steady 50% of all wealth (consisting of real-value only) both before and after a direct exchange of his newly produced apples for the same quantity of different apples, but in a fiat-based economy, where money imposes a universal claim on all real-value, he holds 50% of all real-value but only 25% of all wealth (consisting of the aggregate money supply plus all real-value). The missing 25% of wealth is the unclaimed 'residual value' of production captured by the medium of exchange. It follows that the residual value is collectively appropriated by all money holders in proportion to the size of their holdings. This redistributive mechanism operates whenever real-value is added to the economy and is supplementary to the redistributive effect of monetary expansion or contraction.

The dependence that exists between the supply of real-value and the purchasing power of money does not guarantee a one-to-one relationship, because different categories of real-value are not equally durable with respect to one another or with respect to money. In the above example we have assumed that apples were units of an infinitely durable commodity rather than food that may be consumed and thereby removed from the economy, but in practice every category of value demands a unique 'deflationary coefficient', that is, the fraction of the monetary value of a product or service that can be issued as new units of currency while maintaining the aggregate price inflation at zero. The deflationary coefficient is likely to have a low positive value for consumables but could approach unity for the construction sector and other durable products that are in principle available for sale 'at the right price' for many years. Gold and other precious metals, for that matter, even though in principle imperishable, are likely to have a coefficient of less than unity to the extent that they are regarded as an alternative form of money, creating thereby an absolute inflationary pressure on the fiat currency by adding to the total pool of the media of exchange.

In the next section we will attempt to integrate the deflationary effect of real-value creation into the present taxation regime in order to reinstate the equitability of exchange in a fiat-based economy.

#### **4. Elements of the value-added negative tax (VANT)**

Negative taxation schemes proposed by Friedman and Rhys-Williams were criticised on account of the associated cost to the most productive members of society and, consequently, doubtful political feasibility. The present scheme develops a rationale for negative taxation based on individual contribution to the economic output, aiming to reverse the incidental expropriation of wealth associated with the positive impact that the real-value added to the economy has on the purchasing power of money. We have already hinted at possible means of implementing the scheme that are not necessarily restricted by state-revenue limitations.

In consideration of the exchange principles set out in the previous section and noting that all value in the economy comes into being on account of producers of real-value, we conclude that VANT could not be legitimately funded by government borrowing. Any increase in public

debt incurred for that purpose could only be repaid in value by the same producers of value and therefore would not constitute a net gain or real compensation for its recipients. Given that debt is typically associated with the accrual of interest, any debt-based funding for the scheme would constitute a further expropriation from producers, in favour of non-producers.<sup>14</sup> The very rationale for the scheme implies that an antecedent debt already exists and thus transferring the same debt onto the general public would not correct but perpetuate the alleged inequity. Although it is difficult to quantify the antecedent debt directly it may be practicable to prevent it from accumulating by utilising a suitably geared and iteratively optimised negative taxation pathway.

We suggest that VANT ought to involve a statutory entitlement, granted to first-hand<sup>15</sup> producers of real-value, to redeem the estimated net amount of value added to the currency in the form of newly created amounts of debt-free money. The said entitlement can be quantified as the accounting profit (the sale price of a good or service less the cost of production and supply) multiplied by the current deflationary coefficient for the relevant value-category. In other words, producers of value are granted the right to new units of currency that are already in principle 'secured' by that value, offsetting thereby any deflationary effect of real-value creation. New money thus created is purely endogenous, having derived its value from the goods and services produced (the residual value of production). VANT payments are in effect created by the productive members of society and not by the government who would be mandated only to administer their equitable distribution subject to a dedicated regulatory framework. These new amounts of money could be issued on application by the producer, consistent with what now operates as the income declaration and tax-refund system based on periodic self-assessment. In order to optimise the proposed scheme, the negative tax-rate signified by the deflationary coefficients would need to be periodically reviewed by the monetary authority based on observed price movements and money aggregates, to maintain the aggregate price inflation at a level consistent with the monetary policy target and to avoid asset or value-category bubbles.

A suitable methodology for estimating deflationary coefficients ( $dc_j$ ) may involve an initial assumption of nil deflationary effect ( $dc=0$ ) for every value-category ( $j$ ), followed by periodic adjustments intended to account for: a) the masked deflationary effect of economic output, quantified as the rate of monetary expansion ( $I_{M3}$ ) minus the aggregate price inflation ( $I_P$ ); b) category-deviation from the aggregate price inflation, quantified as the rate of price inflation for the value-category ( $I_j$ ) minus the aggregate price inflation ( $I_P$ ). The category-deviation is intended as a basic measure of disparity between supply and demand, where higher than average price inflation suggests excess demand in the relevant category. A productive activity directed towards satisfying excess demand counteracts the associated inflation anomaly and

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<sup>14</sup> The premise of 'public debt' in an economy where the bulk of money supply is a result of fractional-reserve banking is by no means uncontroversial. A plausible argument against logical and, by implication, legal validity of 'public debt' is based on the inference that when the banking system creates new amounts of (inflationary) money-substitutes *ex nihilo*, it only exercises a delegation of the sovereign prerogative over the nation's money supply, which belongs to the public *ab initio*. In that sense, 'public debt' implies that the public in effect borrows from itself but is then inexplicably indebted for same to a private enterprise. This, in turn, implicitly subverts the economic rationality as the art of *economising*. The forgone seigniorage from money issuance can be substituted only via taxation of other economic agents. Activities or assets arising within the sphere of trade and commerce are taxable, but self-sufficiency and material conservation on any level, a truly *economical living*, is associated with a proportionally reduced taxable capacity. A system based on the premise of public debt is therefore inherently anti-economical in orientation, structurally inefficient and cyclically destructive.

<sup>15</sup> Employers are re-sellers of real-value acquired under employment contracts from individual employees and therefore cannot be regarded as first-hand producers with respect to the value that is produced by employees.

is therefore more deflationary than the same productive activity valued at market equilibrium. The complete formula for deflationary coefficients may be written as follows:

$$dc_i = (I_{M3} - I_P) + (I_i - I_P). dc_i'$$

The solution proceeds in an iterative manner where the resulting coefficient ( $dc_i$ ) replaces the old coefficient ( $dc_i'$ ) and serves as the new VANT rate for that category. The convergence criterion is tentatively satisfied when, in response to VANT, the rate of price inflation for the relevant category approaches the aggregate price inflation, indicating equilibrium of supply and demand.<sup>16</sup>

Value-added negative taxation can be defined as an alternative tax-function geared to individual profits derived from eligible productive activities that cause the associated component of tax liability to be negative. Since the existing tax function is geared to income in general, the introduction of VANT would not be revenue-neutral and therefore significant adjustments to the taxation policy would be necessary. State-revenue could continue to be derived from income taxation positively geared to any non-value-added (unearned) income,<sup>17</sup> while any shortfall in revenue including the cost of implementation of the scheme could be regained by imposing a flat-rate levy on VANT payments. This would still constitute a positive tax on the newly created value but one that is openly legislated and incommensurably more favourable to producers than the present situation.

It remains to be shown that under the proposed scheme, once adequately optimised, the newly created debt-free money would not cause excessive price inflation. The desired effect can be described as a change not only in the quantity of money but also in the quality of circulation. VANT payments flowing directly into the productive end of the economy, irrespective of whether these new amounts were spent on consumption or retained as assets, would inevitably compete<sup>18</sup> for investment/lending opportunity with the existing fractional-reserve credit facilities but, if invested with the banks, would boost their reserves and thus proportionally deleverage the banking system. We speculate that under these conditions banks would find it difficult to inflate the money supply (re-leverage) beyond the already broadly satisfied demand for personal and business credit, but it ought to be anticipated that new methods of monetising unbacked credit would be devised. Contingencies associated with the reaction of the banking sector to VANT will require further consideration in light of relevant legal principles and economic policy.<sup>19</sup>

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<sup>16</sup> Deflationary coefficients estimated according to the present formula would stimulate supply of the price-inflating value-categories on account of a higher than average VANT rate, what would promote price stability.

<sup>17</sup> The return on capital (economic rent, dividends, royalties, interest or speculative gains) is a result of redistribution of the existing value and not an act of creation of new value by the owner of capital. Consequently, any value appropriated as a return on capital would have previously been subject to a VANT entitlement and therefore not eligible under the present scheme. It is essential to remember that eligibility for VANT is not granted on the basis of the effort 'expended' but the effort converted into a valuable (and therefore *prima facie* deflationary) product or service. For example, it takes effort to steal, gamble or to conduct research in support of one's own speculative investment decisions, but this effort is not necessarily converted into a valuable product or service unless it is offered as such, and even then its social and economic benefits are often questionable. As a matter of principle, any effort expended destructively is likely to be inflationary, since it creates a demand for the replacement or substitution of goods without satisfying it.

<sup>18</sup> Peer-to-peer lending (P2PL) and investing (P2PI) are obvious examples of alternative financing platforms based on a strict transfer of purchasing power from lenders to borrowers.

<sup>19</sup> Fractional-reserve banking has almost universal political acceptance as a necessary means for efficient expansion of the fiduciary media in response to endogenous demand, but it is also subject to a well-founded criticism that it unduly, and possibly unlawfully (Soto, 2009, p.710)(Hülsmann, 2008,

A more secure approach for maintaining stability of the money supply would involve categorisation of VANT payments as a money-substitute, signifying only a claim on the monetary base and in that sense similar to the deposit-account balances created by the commercial banks, making VANT payments not suitable as reserves. In effect, the banks would be precluded from leveraging these amounts to further inflate the broad money supply. VANT payments would still be issued debt-free at origin, still in the form of direct deposits made by the government to individual accounts held with the banks, but these deposits would constitute no monetary liability for the government beyond a guaranteed cash-redemption rate, being equal to the rate of fractional reserves maintained by each commercial bank with respect to its depositors. For example, a bank maintaining total reserves at five percent of its total liabilities would gain a claim against the government for the same percentage of the deposited VANT amounts. In this way the level of leveraging by the commercial banks would not be directly affected by VANT while simultaneously allowing the banks to claim from the government a higher rate of reserves, even full reserves, by voluntarily maintaining the same rate of reserves in their commercial operations.

In either case, VANT would constitute a 'bonus' earned income distributed to individual employees, giving the employers a certain margin to drive the wages down that would no doubt be diligently exploited and thus offset the upward pressure on prices associated with the increased disposable income. Similarly, self-employed producers of goods and services would be able to utilise the 'bonus' income to compete on price, although that would depend on multiple factors and complex contingencies. Furthermore, an increase in the disposable income associated with VANT would, as argued earlier, offset the private debt to the banking sector without significantly increasing the broad money supply. Such a partial substitution of *earned* interest-free funds for *borrowed* interest-bearing funds in the absence of an upward pressure on the interest rates would be associated with a reduced interest burden on the entire economy, and therefore in greater financial security. This could in turn lessen the urgency to return money into circulation and therefore reduce the velocity of circulation. The net effect of earned monetary expansion could indeed be somewhat deflationary due to economy-wide incentivisation of value creation in addition to the already equilibrated monetary parameters. This places VANT in radical opposition to the welfare incentivisation inherent to past proposals for negative taxation.

Lastly, earned monetary expansion realised via negative taxation geared to individual economic output and funded via debt-free expansion of the monetary base is possibly the only viable countermeasure to the pervasive contraction of taxable capacity associated with the increasingly voluminous flight<sup>20</sup> of corporate capital into offshore tax-heavens. The utility of tax evasion could be outright eliminated under VANT by reducing the non-value-added income tax-rate to zero, but the associated revenue shortfall would likely need to be compensated by higher consumption or transaction taxes in addition to the already suggested VANT payment levy.

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p.100), favours the commercial interest of the banks at the expense of the taxpayer. The essence of the argument against fractional banking may be stated as follows. If money is a claim against real-value and credit is a claim against money, then if credit is admitted into circulation on par with money, that is, also as a claim against real-value, it is then effectively discharged as a claim against money. It follows that monetised credit, which is in principle discharged by its own monetisation but nonetheless continues to circulate on par with money and thus forms the bulk of the aggregate money supply signified by M3, is in effect a form of counterfeit money. Cf. "Through its ability to create unbacked credit, the fractional-reserve banking system allows for expenditures to occur which also do not represent a strict transfer of purchasing power"(Howden, 2013).

<sup>20</sup>(Zucman, 2013)

Due to limitations of the existing analytical models and, in particular, the virtually unquantifiable real-world conditions that influence the process of economic exchange, the main practical challenge of VANT would be to maintain deflationary coefficients that accurately reflect the actual deflationary impact of various categories of real-value, subject to additional consideration of public interest and broad economic policy. Progressive implementation based on the suggested iterative approach would afford an opportunity to closely monitor economic parameters in response to VANT, allowing for some experimentation while minimising the risk of adverse economic and social effects.

The proposed value-added negative taxation aims to ensure that all forms of economic value are attributed to their rightful owners prior to any positive taxation and in that regard it advances the principle of 'fair money'. The value-generating public, particularly those individuals who are engaged in the production of durable goods, would be pleased to receive what might in effect be regarded as a bonus income in addition to but dependent on individual contribution to the economy. This could greatly assist in the scheme's adoption as well as encourage real-value creation.

## 5. Conclusion

Legal tender, being a universal token of value, gave rise to a parallax between monetary 'representation' understood figuratively, as a one thing neutrally signifying the real-value of another, and 're-presentation' understood literally, as a double of a presentation already made. The main characteristic of re-presentation associated with the economic praxis is its abstract quality that measures barter-value but also functions beside it as valuable in-itself. The medium of exchange, be it pure fiat or a commodity-backed money, is associated with an inflationary excess of monetary re-presentation laying a claim on the real-value of goods and services. This nominal excess of value instantaneously captures up to half of all wealth, diluting all newly generated real-value with the surplus effect of re-presentation. The resulting inequity in the distribution of value is an inherent problem in both fiat and commodity-backed monetary systems, but in either case it can be remedied with an adequately optimised, value-added negative taxation funded via debt-free expansion of the monetary base and injected directly into the productive end of the economy.

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# Did globalisation stimulate increased inequality? A heterodox perspective

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## 1. Introduction

Global income inequality has been steadily rising since the 1980s. The sensational success of Thomas Piketty's "Capital" shows that the topic resonates well with the global population. Many have argued that this has been the result of "globalisation" (Palma, 2006), another concept which is widely discussed but rarely defined. Most divide globalisation into economic globalisation, focusing on international trade and foreign direct investments, and political globalisation, focusing on institutional arrangements. This division hinges on the existence of a conceptual separation between political logic from economic policy, which seems untenable. The contour of the global economy, the structure of the global market, who can participate in it and how they can engage in exchange are seldom apolitical choices.

This paper showcases four scenarios to show that the "political economy" aspect of globalisation is important, and posits that the "neoliberal version of globalisation" has contributed significantly towards increased inequality rather than just globalization. This detrimental and pervasive effect of neoliberalism has been carried out through dismantling the welfare state, reduced power of trade unions, massive industrial consolidation, deregulation of the economy, increased financialization of the international economy and the belief in the primacy of "self-regulating" market. The author believes it is critical to specify that a specific form of globalisation is at fault rather than the whole idea of globalisation; otherwise many may wrongly associate increasing inequality as a necessary consequence of engaging with the global economy and thereby decide to disengage their country and move towards autarky, which might be detrimental. Also unless we define the form of globalisation that is damaging, the debate wrongly focuses on merits and demerits of globalisation rather than what form of global engagement suits an individual country the best. The challenge is to take advantage of globalisation while limiting its offsetting costs.

Some degree of income inequality is constructive and empirical research shows that increased exposure to international trade does have distributional effect through increasing return to education, skilled based technological change, and urban rural migration among others (Goldberg and Pavcnik, 2007). The author's emphasis is that neoliberal ideology, based on market fundamentalism and a priori belief in the efficacy of neoliberal policies, exacerbates the situations significantly rather than countervailing the within-country inequality pressure stemming from increased integration to global economy.

At the onset the author wishes to clarify that the paper does not posit that neoliberal policies were the only cause of increased inequality. The fact that inequality has existed in societies since time immemorial is a sufficient proof that such notion is untenable. The key hypothesis is that dealing with inequality is a policy choice, and as such widespread use of neoliberal policies has contributed to increased inequality. If shown to be true this implies that rectifying the situation entails better policies and rather than blaming globalisation. The hypothesis is

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<sup>1</sup> The article is written on a personal level and views expressed are strictly those of the author.



not a new one; others have also tried to show that neoliberal policies, rather than globalisation, have led to increased inequality (Quiggin, 1999; Schneider, 2003; Fiorentini and Montani, 2012; Evan and Sewell, 2013). Unfortunately it is often difficult to disentangle the impact of globalisation on inequality from the associated political and institutional reforms, in this case neoliberal reforms, accompanying the globalisation process. The key addition in this paper is that the author will use selected country-specific case studies using counterfactual analysis to offer stronger evidence of this proposition.

The paper is divided into five sections. The first defines the concepts of globalisation and inequality, as used in this paper. The second section explains how neoliberal globalisation became a dominant force intellectually and politically. The third and fourth sections show how such forms of globalisation further exacerbated inequality. The paper concludes with a summary of the overall exercise and a general explanation of how we can promote a non-neoliberal form of globalisation.

## **2. What's in a word?**

Given the plethora of definitions it is difficult to say comprehensively what the term "globalization" means. Some have defined it broadly like Giddens (1991) "the intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa". Others have focused narrowly on the increased interdependence and integration of national economies. Norris (2000) looks to the social, cultural and economic dimensions of globalisation and defines it as a process that "erodes national boundaries, integrates national economies, cultures, technologies and governance, and produces complex relations of mutual interdependence".

Martin Wolf (2004) defines "liberal globalisation" (which we may consider as the neoliberal position) on a narrow economic terms as "integration of economics activities, across borders, through markets". According to him the salient feature of neoliberal globalisation is increasing market integration of goods and services globally, reduction of trade barriers, free flow of capital, and technology, and finally use of market friendly policies both in domestic and international sphere (Wolf, 2004). According to Wolf the salient feature of neoliberal globalisation is increasing market integration of goods and services across economies, reduction of trade barriers, free flow of capital, technology and investment, and finally use of market friendly policies both in domestic and international sphere (Wolf, 2004). Thus to him it is a journey we have embarked upon with a vision that in future we will have a single unified market of goods and services, factor inputs with unrestricted flow. This vision may be commendable but we have to ask, is global integration best brought about by following the "market friendly" neoliberal principle?

All these definitions share in common the concepts of greater interdependence and integration. Countries today are no doubt more interdependent than before, but their fates are not "determined" by others. Asian financial crisis did not affect Taiwan as much as South Korea. The Global Financial crises of 2007-08, have had asymmetric effects, ranging from worst hit OECD countries like UK and US, to less impacted emerging economies like China or even Least Developed Countries like Bangladesh, whose GDP is still growing at the pre-crisis rate of 6% per annum. The same can be said about integration. Countries are still not fully integrated and so the process of engaging the global economy is path dependent and the pace can be adjusted, albeit within a limited and shrinking policy space (Wade, 2003). One

can undertake rapid liberalisation and economic integration using shock therapy like Pinochet's Chile or countries of former Soviet Union post 1991. Others may take a gradual path like China, which joined WTO only in 2001.

The vision of a globalised world may be singular, but the route a country takes can be different and context specific; the neoliberal approach is but one such route towards attaining a globalised world. In this paper, "neoliberal globalisation" is defined from the perspective of a country which believes in market fundamentalism and undertakes neoliberal policies to integrate with the global economy. Boas and Morse (2009) identified three sets of policies that typifies neoliberal policy reforms : (1) market reforms through financial and trade liberalization of the economy, price control elimination, trade barriers reduction; (2) limiting role of state in the economy, privatization of state-owned enterprises (SOEs); (3) reduction of the size of government through fiscal austerity and macroeconomic stabilization, and, among others, elimination of budget deficits, and curtailment of government subsidies.

Regarding inequality there are multiple concepts which are often interrelated. Social inequality may look at education or gender inequality while economic inequality may look at wage, land, income or wealth inequality. Furthermore pre-existing economic inequality (e.g. wealth or land) can perpetuate or reinforce social inequality (e.g. education) or vice versa, and they are often self-reinforcing (Galor and Zeira, 1993). Piketty's (2014) argument about inequality and its relation to the return on wealth ( $r$ ) being greater than the growth of labour income ( $g$ ) i.e.  $r > g$  is a formalization of this phenomenon.

The present paper focuses primarily on income inequality. Research shows that what is true for it is often also true for wealth inequality, but with the latter operating on a longer time scale (Piketty, 2014; Atkinson, et al , 2011; Davies et al, 2011; ILO, 2008). The paper also focuses primarily on within-country inequality rather than between countries, since globalisation has an asymmetric impact on countries in terms of income inequality. The paper argues that this has depended substantially on the political choices and institutional settings of those countries. In the next section we look in to how the neoliberal ideology became dominant in the late 70s.

### **3. The rise of neoliberal ideology**

From the mid-twentieth century to the early 1970s the state played a dominant role. For industrialized countries public expenditure as a proportion of GDP was around 12% before the First World War and increased to around 27% by 1960 and to about 47% by 1985 (Tanzi 1997; Batley, 2002). Meanwhile many colonies gained independence after World War Two. These post-colonial developing countries had weak institutions and in many cases the State was the only significant and legitimate institution (Alavi, 1972; Saul, 1974). This engagement with the State was also given theoretical justification from growth theories of post-war era. During this era international trade expanded significantly, especially among advanced nations, but within countries inequality remained stable (Fiorentini and Montani, 2012).

In the 1970s there were two oil shocks, and developed economies faced stagflation, which could not be reconciled with the Keynesian approach. There were spectacular election defeats of political forces who espoused regulated capitalism, particularly in the English speaking developed economies, by conservative political parties who advocated a "neoliberal" approach (Steger, 2010). With the resurgence of neoliberal doctrine, the role of the state was significantly cut back and massive deregulation took place with tax cuts being given to the

rich. The Thatcher and Reagan governments in UK and US, and other major economies initiated austerity programs. Consequently global export demand fell, resulting in trade deficits in the developing countries. Since the developing countries mostly pursued industrialization through debt financing, with international recession their national debts grew. They then approached the World Bank and IMF for loans. Meanwhile, drawing on the researches of Anne Krueger, Bela Balassa, Jagdish Bhagwati, World Bank economists criticised state interventions for causing market inefficiency, rent-seeking, draining government revenues, etc (Stein, 2008). This led to the development of structural adjustment programmes, which were imposed as conditions for developing countries receiving loans. Prescriptions entailed balanced budget, trade and financial liberalization, privatization of state owned enterprise, very much in line with the Washington consensus (Williamson, 2000; Tabellini, 2005). Thus by the late 70s the global dominance of the neoliberal ideology was well established.

#### **4. Impact of neoliberal ideology**

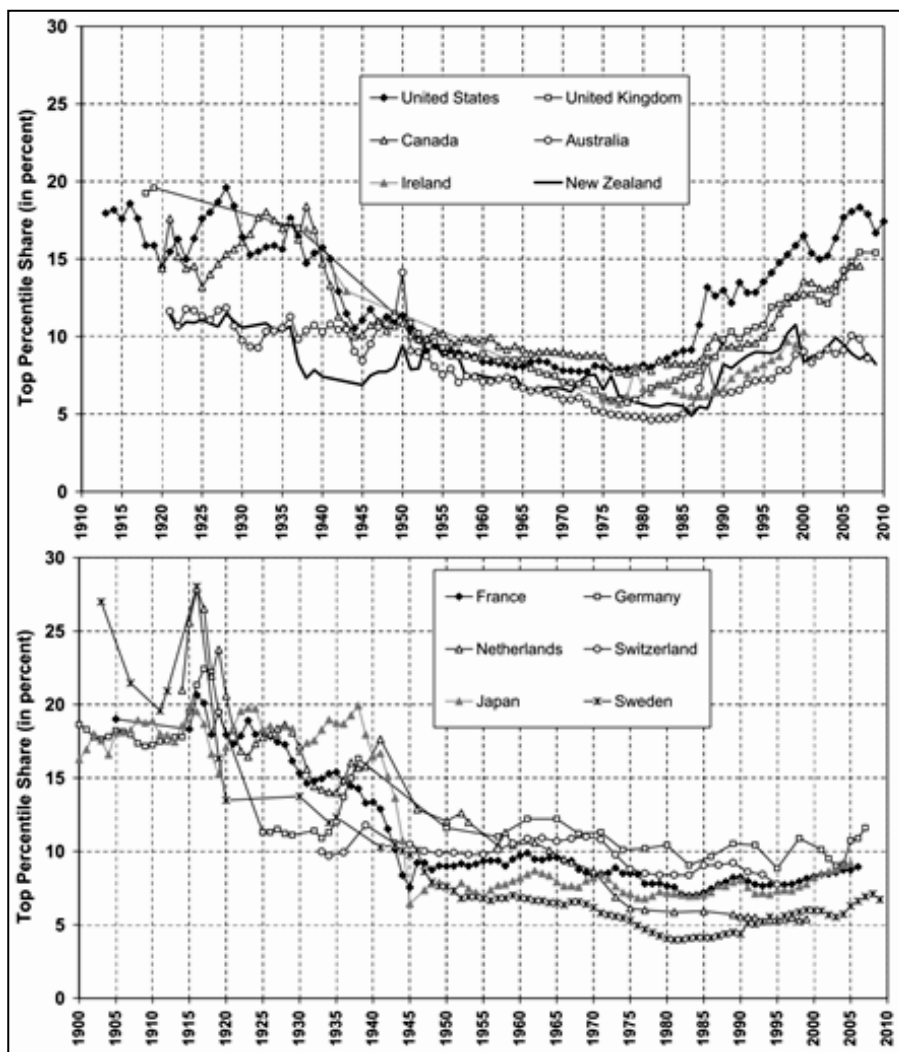
Countries, both developed and developing, which followed neoliberal policies experienced higher levels of inequality.

##### **4.1 Anglo-American neo-liberalism**

Polanyi discussed in great detail how the pre First World War era (1870-1914) was the first experimentation with laissez-faire economics by major European powers, the “golden age of liberalism” (Chang 2003). Many have argued that Globalisation as a concept is nothing new and that there are significant similarities between the two eras of globalization, i.e. pre 1914 and post 1970, in terms of trade integration, FDI flow, capital mobility, etc. (Quiggin, 1999; Sachs, et al 1995; IMF 1994). However the present author believes, like others, that there are qualitative differences between the two eras of globalisation in terms of technology involvement, composition of trade and FDI, financial instruments involved, etc. (O’Rourke, 2001; Bairoch, et al, 1996). But there is broad agreement that the two periods were very similar in terms of liberal ethos, and in many respects the pre-1914 world was much closer to the idealized “Washington consensus” view of neo-liberalism. Colonies like China, India were forced through gunboat diplomacy to open up to trade with their Colonial masters (O’Rourke, 2001), more extreme than the supposed subtle arm twisting by WTO at present. Governments were smaller in the developed world, with government spending as percentage of GDP averaging 13% where as in the late 1990s it stood at an average of 45% (Tanzi, and Schuknecht, 2000). There were fewer regulations, no antitrust laws, environmental or child labor regulations, etc; thus capitalism was much less constrained than today.

Polanyi (1944) argued that there was then an unprecedented level of inequality; a fact that is borne out by current research showing that the top 1% of the population had nearly 20% of the total income (Atkinson, et al, 2011; Piketty and Saez, 2013). In the early 20<sup>th</sup> century most European countries followed neoliberal policies and had high inequality (Figure 1). But in the second phase of globalisation during the 1970s, the Anglo-American countries adhered to neoliberal ethos more closely through massive tax cuts, financial market deregulation, privatization of SOEs, etc. Thus we see English speaking countries had much higher level of inequality in comparison to non-English speaking developed countries, even approaching the ones of pre 1914 level (Figure 1). Unlike the 1960s during the “golden age of capitalism”, when both English and non-English speaking OECD countries were highly integrated to the world economy and yet had low inequality.

**Figure 1:** Historical trend of Top 1 percent share in selected OECD countries



Source: Piketty & Saez, (2013).

Inequality in these English speaking countries has continued to increase even after the global economic recession of 2008-09; in US alone 95% of all income gains since 2009 have gone to the top 1% (Stiglitz, 2013). Therefore it seems neoliberal globalization stimulated high levels of inequality, like it did in the laissez faire world of pre 1914.

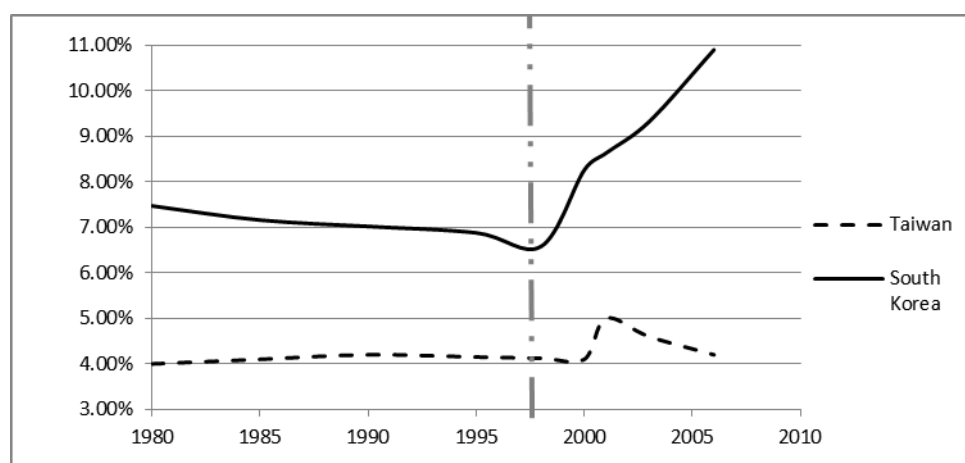
Research also shows that over the last 30 years the wage differential, ratio between the 90<sup>th</sup> and 10<sup>th</sup> percentiles, have increased most in UK, US and Australia, and where they were already very high in the 80s. Whereas Sweden, France and Finland have had the lowest increases, and in France it has actually decreased (Hills, 2010). Similarly the difference in inequality, measured in terms of gini-coefficient, between the English-speaking and non-English speaking OECD countries persist, with median ginis of 36.0 and 27.1, respectively (Palma 2006). Germany, France, Netherlands and the other Scandanevian countries stand out among the OECD countries as having significantly large number of SOEs, with Norway having nearly 10% of employees in the SOE sector (Christiansen, 2011). Similarly, in government spending these countries spend much more than their English speaking

counterparts<sup>2</sup>. Thus based on this comparative and historical study, a strong case can be made that neoliberal policy leading globalisation was a significant factor in stiumalting comparatively higher levels of inequality in English speaking OECD countries.

#### 4.2 South Korea and Taiwan

Much has been written about the state led industrial policy and export led development approach of South Korea and Taiwan. In both these countries early land reform ensured that there were no large land holders (Amsden, 1989) so that these countries had a low income inequality to begin with. These countries experienced miraculous growth, mostly export led, but with relatively low levels of inequality, giving rise to the concept 'growth with equity' (Wood, 1999). One difference between the Taiwanese and South Korean industrial policy was that the former was based on protecting large SOEs while in South Korea the government played a key role in nurturing large privately owned conglomerates "chaebol" (Chang, 2003; Amsden 1989). This might explain why income inequality was slightly higher in South Korea than Taiwan (Figure 2). Both these countries introduced a state welfare regime, which has been termed as "East Asian Welfare Regime" (Dostal, 2010). In essence both these countries for a significant period of time followed a similar 'non-neoliberal' policy framework of state led interventionist industrial policy to support their export led growth (Chang, 2011).

**Figure 2:** Income share of top 1% (Taiwan and South Korea)



Source: Constructed by author based on data from Kim et al (2013) and Cheng et al (2008)

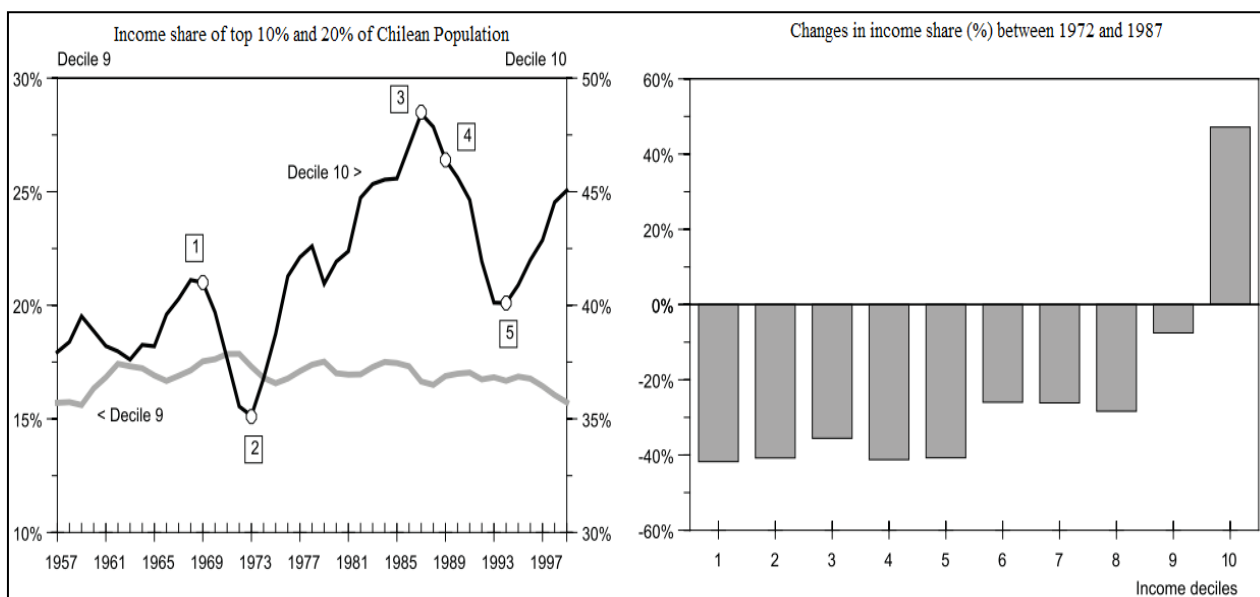
However their paths diverged after the Asian financial crisis (1997-98) when Taiwan passed through it relatively unscathed (Wu, 2007) but South Korea suffered severely. The Korean government, faced with foreign exchange crisis, introduced radical reforms at the behest of IMF, reducing the role of state in the economy, and increasing focus on market liberalisation. As Daeyong Choi, Director General, Office of the Prime Minister, Republic of Korea said, on a self-congratulatory note, the government "launched drastic structural reform policies" by "massive abolishment of existing regulations" to "shift for Korea from a highly interventionist model for compressed economic development to a market oriented and open model" (Choi, 2001). The net result of these "neoliberal policies" in South Korea has been that inequality

<sup>2</sup> Based on the data from 2014 Index of Economic Freedom by The Heritage Foundation, the governments of Scandinavian and the aforesaid selected continental European countries spent nearly an average of 7-8% more than their English-speaking counterparts like the US and Australia, as measured by government spending as a percentage of gross domestic product (GDP).

has increased significantly from the figures in 1997-98, while in case of Taiwan it has remained relatively stable (Figure 2). This result is especially startling given the fact that both Taiwan and South Korea initially had low income inequality and followed ‘unorthodox’ industrial policies; but after one country introduced neoliberal policies its inequality rose sharply in a relatively short span of time. This implies that the pernicious effect of the neoliberal policies can take root even in countries where there is very little historical precedence of such policies.

### 4.3 Pinochet’s Chile

Although Chile joined OECD in 2010, Pinochet’s Chile between 1973 and the early 1990s was a low income country and even today remains a developing country. It is well documented how in Chile after Pinochet took power the so called “Chicago boys” initiated a shock therapy of neoliberal policies focusing on rapid trade liberalisation, deregulation and privatization of SOEs, similar to the one carried out in Eastern Europe after 1991. In the first wave of reform (1974-79) the government eliminated all quantitative restrictions and exchange controls, and reduced import tariffs from an average in excess of 100% to a uniform 10% tariff (Edwards & Lederman, 1998). Milton Friedman also visited the country and met Pinochet in mid 70s. Margaret Thatcher has also been an advocate of Pinochet’s policies and his “success” in transforming Chile’s economy. Thus Pinochet’s Chile followed the textbook neoliberal approach to integrate the country with the global economy; the result on inequality is shown below:



Notes: Three-year moving averages. [1] = election of President Allende; [2] = Augusto Pinochet’s *coup d’état*; [3] = the year before President Pinochet’s plebiscite (seeking a mandate to remain in power for another 8 years); [4] = First democratic government after President Pinochet lost his plebiscite; [5] = second democratic government which returned to ‘market-led’ distributed policies.

Source: Palma (2006)

As we see from graph, during Pinochet’s regime income of the top 10% increased from 15% to nearly 50% share of total income. This was the only income group which improved their relative income position, thus absorbing almost all the benefit from economic integration (Palma, 2006). So we see yet another case of how economic integration through neoliberal policies can increase income inequality.



Chile is unfortunately not a unique case in Latin America; during the early 90s the IMF provided policy prescriptions to numerous other Latin American countries, among them Argentina, very much in the orthodox Washington consensus line. President Menem of Argentina then initiated a massive drive towards privatization of SOEs, opening domestic market to imports, abolishing all price controls, freeing exchange control, and removing government wage controls (Pang, 2002). The idea was to improve competition, increase the flow of FDI, remove market distortion and hence integrate with the global economy. The result was between 1992 and 2002, before the financial crisis, the gini coefficient rose by 8.2%, which was one of the highest in Latin America (Lustig et al, 2013).

Neoliberal policy reforms were often implemented with “messianic attitude” in Latin America (Palma, 2010). Lustig et al, (2013) found that between 2002 and 2010, inequality declined in major Latin American countries, and attributed it to progressive government interventions, among others. In Argentina, where gini coefficient fell by 9% during the period, state intervention became more pervasive with social protection schemes being introduced to redistribute income and with labour market institutions becoming stronger (Lustig et al, 2013). Latin America in general illustrates how adoption of neoliberal ideologies can stimulate high level of inequality.

#### **4.4 India after neoliberal reforms in the 90s**

It is worth noting that India remains a lower middle income country, with over 250 million living in extreme poverty and with average life expectancy of 66 years, which is 4 years lower than that of its LDC neighbour Bangladesh (World Bank, 2014). In 1991 India introduced its own set of neoliberal policies, at the behest of IMF, focusing on short terms stabilisation and long term structural adjustment programmes (SAP). SAP entailed financial and trade liberalization, significant curtailment of government expenditures such as reduced expenditure in rural development, significant cuts in fertiliser subsidies and in public investment in irrigation (Chandrasekhar, and Ghosh, 2002). SAP policy choices were not inevitable but rather political ones, deciding which section of the public would bear the brunt of the cost of reforms. The following table shows the impact of these policies on inequality:

**Table 1:** India’s inequality post 1971 reforms

Parameters	Pre Reform (1990s)	Post Reform (2000s)
Number of Billionaires	2 (mid 1990)	46 (2008)
Total billionaire wealth to gross domestic product (GDP)	1% (mid 1990)	22% (2008)
Share of Income of top 0.1%	1.80% (1994)	3.60% (2000)
Share of Income of top 10%	26% (1994)	28% (2005)
% of per capita State Domestic Product (SDP) of the richest State (Punjab) to the poorest (Bihar)	312% (1991)	452% (2001)

Source: Constructed by author based on Chandrasekhar, and Ghosh, 2002; Banerjee, & Piketty, 2005; Walton and Gandhi, 2012; World Bank, 2014

Two additional points are worth noting, the first is that the income share of top 10% has stabilised at 28% (World Bank, 2014), which implies that almost 90% increase in income share (i.e. 1.8% of 2%) of top 10% between 1994-2005 periods was accrued to top 0.1% of



the income group. Second point is that the percentage of Punjab's per capita GDP to Bihar's per capita GDP in 1981 was 292%, very close to the figure in 1991 (Chandrasekhar, and Ghosh, 2002). This implies that the gap between the poorest and richest state since the reforms has widened rather exponentially. This is to be expected considering government reduction of agricultural support negatively impacted on the poorer sections of the country while financial liberalisation disproportionately benefited the rich. As Walton and Gandhi (2012) pointed out, 20 out of the 46 billionaires of India "had their primary sources of wealth from rent-thick sectors".

## **5. Why neoliberal globalisation increases inequality?**

So far we have presented four case studies, all of which offer counterfactuals to show that implementation of neoliberal policies was a major reason for increased inequality. In section 4.1 and 4.2 there were paired comparisons between countries using neoliberal policies and those which chose not to do so, the second group of countries acting as counterfactual or control for the first. In section 4.3 and 4.4 we have emulated a discontinuity design using a cut-off point around when neoliberal reforms were introduced, to show how inequality parameters increased in value almost immediately, against historical trends after introduction of reforms. Our choice of countries included, developing countries, developed western democracies, newly industrialized countries, and even a lower middle income country, spanning five continents. Given this evidence one can reasonably and robustly say that implementation of neoliberal policies was the key to increased income inequality rather than globalisation per-se, after all some of these countries were already very well integrated with the world economy before introduction of reforms.

Axtell and Epstein (1996) in their seminal paper developed a computer simulation model of an economy populated by agents, who follow basic microeconomic theories, to investigate the distribution pattern that emerges when these agents interact; the simulated agents had the ability to move, eat, reproduce, fight, trade, and suffer disease. In essence Axtell and Epstein assessed what would be the distribution pattern of wealth if the economy was perfectly competitive with minimal rules and populated by "homo-economicus" agents. The result was, even if the original resource endowment was normally distributed, after several cycles of simulation a highly skewed unequal income distribution emerged. This meant that left itself a perfectly competitive economy generates inequality which is thus an "emergent" property of the market system (Axtell and Epstein, 1996; Beinhocker, 2007). This powerful conclusion suggests that without countervailing forces inequality will emerge in any market economy, independent of integration to global economy, therefore policies matter. Blaming globalisation for inequality thus becomes akin to blaming capitalism.

This is exemplified by China, whose market reforms were initially launched out of necessity rather than from a neoliberal ideological point of view, even though some call Deng Xiao Ping, a "neoliberal" (Harvey, 2005). During 1978 and 1985, the ratio between urban and rural household in per-capita income significantly narrowed from 2.57 in 1978 to 1.85 in 1985 (NBSC, 2014), mainly because farmers gained through the household responsibility system and increased state procurement prices. However in recent decades the government's focus on urban areas in terms of educational and healthcare spending, coupled with reduced investment in agriculture, rural healthcare and education, lack of policies towards redistributing asset income, and abandonment of egalitarian distribution policies has led to ever increasing inequality (Sincular, 2011). By 2009 the ratio between rural per-capita income

to urban per-capita income stood at 3.33 times (NBSC, 2014), higher than pre-reform era. Thus without proper countervailing interventions from the government, inequality will emerge in a free market economy.

## **6. Non neoliberal globalisation – a way forward**

It is not necessarily globalisation or integration with the world market that creates inequality but how one integrates and what policies are applied that matters. Neoliberal globalisation worsens the situation, as it often entails reduction of states role in the economy through curtailment of agricultural subsidies and welfare costs and offers free reign to the capital market increasing its return, thus making the poor poorer and the rich richer. Therefore we should think about how governments can actively engage in redistributive effort through increased agricultural support and stronger welfare systems. Unfettered markets are not self-correcting and efficient as many believed; the recent financial crisis is a testament to that (Stiglitz et al, 2009).

Sustainable equitable economic growth requires the state to take an active role in how it wishes to engage and integrate with the global economy. Currently the rules of the game of international trade are heavily influenced by the transnational corporations and the global financial organizations supported by the political clout (“regulatory capture”) of their industrialized country of origin, through the medium of multilateral institutions like IMF, World Bank and WTO (Nayyar, 2003). Therefore international governance institutions have to be made more democratic and accountable, policy prescriptions, conditionalities and the rules of such global institutions should be revised to allow a greater diversity of policy approaches (Chang, 2003). But it is worth noting that even within current global policy space, developing countries can do a lot; they can implement well-defined industrial policies focused on industrial development and technological upgrading, with strong and targeted investments in capacity building and competitiveness initiatives, emulating the successful East Asian economies (OECD, 2013; Warwick 2013). As Chang (2003) states:

“The current literature tends to regard the process of globalisation and the rise of TNCs as an unstoppable process that no one can control and in which nations, especially developing nations, are passive agents that will have to fully embrace this process or perish. However, such a view is misleading, since there is a lot of room for maneuver for national government.”

Therefore state can be a forceful agent in steering how a country gets integrated with the global economy. As we have seen East Asian countries like Korea and Taiwan initiated land reforms, and introduced welfare system in the very early stages of their development process ensuring growth with relative equity ( Dostal, 2010; Chang, 2006); other developing countries can emulate such processes.

Globalisation is something that is useful and beneficial, and has improved the life of millions over the last thirty years; our focus should be making it better by implementing effective policies and discarding the ones which have proven to be disastrous. It is not globalisation that stimulates inequality but bad policies that let it run amok. Stiglitz et al (2009) state in regards to our global economy, which is organized under the neoliberal framework:

“... our multiple crises are not the result of a failure or failures of the system. Rather, the system itself – its organization and principles, and its distorted and flawed institutional mechanisms – is the cause of many these failures.... our global economy is but one of many possible economies, and, unlike the laws of physics, we have a political choice to determine when, where, and to what degree the so-called laws of economic behavior should be allowed to hold sway.”

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# A population perspective on the steady state economy

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A steady state economy is defined by a constant population and a constant stock of physical capital. In a way it is an extension of the demographer's model of a stationary population to include non-living populations of artifacts, with production rates equal to depreciation rates, as well as birth rates equal to death rates. The basic idea goes back to the classical economists and was most favorably envisioned by John Stuart Mill.

The population problem should be considered from the point of view of *all* populations – populations of both humans and their things (cars, houses, livestock, crops, cell phones, etc.) – in short, populations of all “dissipative structures” engendered, bred, or built by humans. Both human bodies and artifacts wear out and die. The populations of all organs that support human life, and the enjoyment thereof, require a metabolic throughput to counteract entropy and remain in an organized steady state. All of these organs are capital equipment that support our lives. Endosomatic (within skin) capital – heart, lungs, kidneys – supports our lives quite directly. Exosomatic (outside skin) capital supports our lives indirectly, and consists both of natural capital (e.g., photosynthesizing plants, structures comprising the hydrologic cycle), and manmade capital (e.g., farms, factories, electric grids).

In a physical sense, the final product of the economic activity of converting nature into ourselves and our stuff, and then using up or wearing out what we have made, is waste. What keeps this from being an idiotic activity – depleting and polluting, grinding up the world into waste – is the fact that all these populations of dissipative structures have the common purpose of supporting the maintenance and enjoyment of life. As John Ruskin said, “*there is no wealth but life.*”

Ownership of endosomatic organs is equally distributed, while the ownership of exosomatic organs is not, a fact giving rise to social conflict. Control of these external organs may be democratic or dictatorial. Our lungs are of little value without the complementary natural capital of green plants and atmospheric stocks of oxygen. Owning one's own kidneys is not enough to support one's life if one does not have access to water from rivers, lakes, or rain, either because of scarcity or monopoly ownership of the complementary exosomatic organ. Therefore all life-supporting organs, including natural capital, form a unity with a common function, regardless of whether they are located within the boundary of human skin or outside that boundary.

Our standard of living is traditionally measured by the ratio of manmade capital to human beings – that is, the ratio of one kind of dissipative structure to another kind. Human bodies are made and maintained overwhelmingly from renewable resources, while capital equipment relies heavily on nonrenewable resources as well. The rate of evolutionary change of endosomatic organs is exceedingly slow; the rate of change of exosomatic organs has become very rapid. In fact the collective evolution of the human species is now



overwhelmingly centered on exosomatic organs<sup>1</sup>. We fly in airplanes, not with wings of our own. This exosomatic evolution is goal-directed, not random. Its driving purpose has become “economic growth,” and that growth has been achieved largely by the depletion of non-renewable resources.

Although human evolution is now decidedly purpose-driven, we continue to be enthralled by neo-Darwinist aversion to teleology and devotion to random. Economic growth, by promising more for everyone, becomes the *de facto* purpose, the social glue that keeps things from falling apart. But what happens when growth becomes uneconomic, when it begins to increase environmental and social costs faster than production benefits? How do we know that this is not already the case? If one asks such questions, one is told to talk about something else, like space colonies on Mars, or unlimited energy from cold fusion, or geo-engineering, or the wonders of globalization, and to remember that all these glorious purposes require growth, in order to provide still more growth in the future. Growth is the *summum bonum* – end of discussion!

In the light of these considerations, let us reconsider the idea of demographic transition. By definition this is the transition from a human population maintained by high birth rates equal to high death rates, to one maintained by low birth rates equal to low death rates, and consequently from a population with low average lifetimes to one with high average lifetimes. Statistically such transitions have often been observed as standard of living increases. Many studies have attempted to explain this correlation, and much hope has been invested in it as an automatic cure for overpopulation. “Development is the best contraceptive” is a related slogan, partly based in fact, and partly in wishful thinking.

There are a couple of thoughts I'd like to add to the discussion of demographic transition. The first and most obvious one is that populations of artifacts can undergo an analogous transition from high rates of production and depreciation to low ones. The lower rates will maintain a constant population of longer-lived, more durable artifacts. Our economy has a GDP-oriented focus on maximizing production flows (birth rates of artifacts) that keeps us in the pre-transition mode, giving rise to low product lifetimes, planned obsolescence, and high resource throughput, with consequent environmental destruction. The transition from a high maintenance throughput to a low one applies to both human and artifact populations independently. From an environmental perspective, lower throughput per unit of stock (longer human and product lifetimes) is desirable in both cases, at least up to some distant limit.

The second thought I would like to add is a question: does the human demographic transition, when induced by rising standard of living, as usually assumed, increase or decrease the total load of all dissipative structures on the environment? Specifically, if Indian fertility is to fall to the Swedish level, must Indian per capita possession of artifacts (standard of living) rise to the Swedish level? If so, would this not likely increase the total load of all dissipative structures on the Indian environment, perhaps beyond capacity to sustain the required throughput?

The point of this speculation is to suggest that “solving” the population problem by relying on the demographic transition to lower birth rates could impose a larger burden on the environment, rather than the smaller burden hoped for. Of course indirect reduction in fertility by automatic correlation with rising standard of living is politically easy, while direct fertility

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<sup>1</sup> <https://books.google.com/books?id=fOyenQEACAAJ&dq=Georgescu-Roegen,+The+Entropy+Law+and+the+Economic+Process&hl=en&sa=X&ei=62m1VlnTKlmyggSij4CYDA&ved=0CB8Q6AEwAA>

reduction is politically very difficult. But what is politically easy may be environmentally ineffective.

Also, even if a nation follows the demographic transition and achieves a balance between births and deaths, there is still the problem of immigration. In the US, Canada, and Western Europe, for example, nearly all population growth is due to net immigration. A mix of genuine humanitarianism and legitimate refugee needs on the one hand, with class-based cheap labor policies and ethnic politics on the other, has made immigration control politically divisive. If population pressure in pre-transition countries is eased by net emigration, while the benefits of population equilibrium in post-transition countries are erased by growth from net immigration, does that not weaken the basic causes of the demographic transition itself? In the face of increasingly open borders, high fertility seems less likely to be brought down by the automatic demographic transition. True, high-fertility immigrants into low-fertility countries eventually adopt the fertility behavior of the receiving country, but that takes a generation or more.

In a finite world, some populations grow at the expense of others. *Homo sapiens* and *Mechanistra automobilica* are now competing for land, water, and sunlight to grow either food or fuel. More nonhuman “bodies” will at some point *force* a reduction in human bodies. This forced demographic transition is less optimistic than the voluntary one induced by chasing a higher standard of living by engendering fewer dependents. In an empty world we saw the trade-off between products and people as motivated by desire for a higher standard of living. In the full world, that trade-off is forced by competition for limited resources.

The usual counter to such thoughts is that we can improve the efficiency by which resource throughput maintains dissipative structures. For example, a car that lasts longer and gets better mileage is still a dissipative structure, but with a more efficient metabolism that allows it to live on a lower rate of throughput. Likewise, human organisms might be genetically redesigned to require less food, air, and water. Indeed smaller people would be the simplest way of increasing metabolic efficiency (measured as number of people maintained by a given resource throughput). To my knowledge no one has yet suggested breeding smaller people as a way to avoid limiting the number of births, and neither do I. We have, however, been busy breeding and genetically engineering larger and faster-growing plants and livestock, as well as building larger exosomatic organs, so that we become smaller relative to the other organisms we depend on, although we remain the same size absolutely. So far, in the empty world, the latter dissipative structures have been complementary with populations of human bodies, but in our finite and full world, the relationship has become competitive.

Indeed, if we think of population as the cumulative number of people ever to live over time, instead of those simultaneously living, then many artifact populations have long been competitive with the human population. That is, more consumption today of terrestrial low entropy in non-vital uses (Cadillacs, rockets, weapons) means less terrestrial low entropy available for tomorrow’s vital use of capturing solar energy (plows, solar collectors, dams, windmills). The solar energy that will still fall on the earth for millions of years after the material structures needed to capture it are dissipated, will be wasted<sup>2</sup>, just like the solar energy that currently shines on the barren moon.

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<sup>2</sup> <https://books.google.com/books?id=fOyenQEACAAJ&dq=Georgescu-Roegen,+The+Entropy+Law+and+the+Economic+Process&hl=en&sa=X&ei=62m1VInTKlmyggSij4CYDA&ved=0CB8Q6AEwAA>

If our ethical understanding of the value of “sustainability” (longevity with sufficiency) is to “maximize” cumulative lives ever to be lived, subject to a per capita consumption level sufficient for a good life, then we must limit the load we place on the earth at any one time. Fewer people, and lower per capita resource consumption, facilitated by more equitable distribution, mean more (and more abundant) lives for a longer, but not infinite, future. There is no point in maximizing the cumulative number of lives lived in misery, so the qualification “sufficient for a good life” is important, and requires deep rethinking of economics, and a shift of focus from growth to sufficiency, including sufficient habitat for other species. It also requires rethinking of the traditional pro-natalist dogmas of the fundamentalist branches of most religions, including Christianity, Islam, and Judaism. The modern secularist religions of Marxism and Scientism likewise proselytize for the Ecumenical Church of Growthism while ignoring population.

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# Money and Say's law: on the macroeconomic models of Kalecki, Keen, and Marx

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## Abstract

Kalecki's model of aggregate income and aggregate spending, and their dynamic relations was very likely influenced by Marx's schemes of reproduction. This paper argues, first, that in both Kalecki's model and in Marx's simple reproduction, money and credit play no role, so that rather than a monetary economy, these models portray a barter economy which follows Say's law. Second, that Steve Keen's recent proposition that aggregate demand is the sum of income plus the change in debt is a step toward an aggregate macroeconomic model in which the market economy is portrayed in a more realistic way. Third, that Marx's expanded reproduction scheme somewhat forces the consideration of money in the model, which makes evident that hoarding is a basic mechanism for the creation of excess supply. Fourth, that a proper macroeconomic model that portrays the market economy without abstracting essential characteristics of it must not ignore (1) money, fulfilling its role of purchasing power reservoir, and (2) credit, as a two-edged tool that creates purchasing power in the short run and macroeconomic strain in the long run.

## 1. Introduction

In 1954, Michal Kalecki published his *Theory of Economic Dynamics*, where he claimed that key aspects of his macroeconomic views had been already presented in papers published in 1935.<sup>2</sup> In a concise and elegant way, Kalecki was addressing the issue of intellectual precedence – in macroeconomic matters – over Keynes, who had published his *General Theory* in 1936.

In *Theory of Economic Dynamics*, Kalecki presented his profit equation (see figure 1 – at the end of this paper) as the corollary of a simplified macroeconomic model of a closed economy in which both government expenditure and taxation are negligible, so that the gross product is the sum of gross investment and consumption. In these conditions, gross profits equal gross investment plus capitalists' consumption. This is Kalecki's profit equation, which had a major impact in post-Keynesian economics.

Three decades after the profit equation appeared in the *Theory of Economic Dynamics*, Hyman Minsky closely followed Kalecki's views on the determinants of profits. In his *Stabilizing an Unstable Economy*, to create an even more simplified model, Minsky added the assumption that capitalists do not consume, thus arriving at the notion that profits equal investment. For Minsky, the notion that profits equals investment was "a profound insight into how a capitalist economy works."<sup>3</sup>

It will be argued here that the simplifications of Kalecki's and Minsky's models imply major flaws in the realism of macroeconomic models. Indeed, these simplifications imply that Say's

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<sup>2</sup> Michael Kalecki, *Theory of economic dynamic – An essay on cyclical and long-run changes in capitalist economy*, London, George Allen & Unwin, 1954 p. 45, footnote 1, see figure 1 here.

<sup>3</sup> Hyman P. Minsky, *Stabilizing an unstable economy* [1986], New York, McGraw-Hill, 2008, p. 169.

law creeps into the model just from the assumptions. The same happens when Marx's schemes of reproduction are interpreted in a way that has been common among Marxist economists. For Marx, in the aggregate, profits are just the same as surplus value, and many would agree – though it is wrong – that in the Marxian scheme of expanded reproduction, capitalists either use surplus value for personal consumption or invest it for further accumulation of capital. Thus, the idea that profits equal investment plus capitalist consumption would directly connect Kalecki with Marx. However, as it will be explained, Marx's presentation of his model of expanded reproduction, though a very sketchy one, is sufficient to reveal that his model is quite different from Kalecki's.

Recently, Steve Keen has emphasized the key role of money in our economy and has stated that aggregate demand is the sum of income plus the change in debt.<sup>4</sup> This is an important step in the right direction, toward a theory of economic aggregates which does not abstract away such key elements as money and credit. But to explain why this is the case we need to come back first to the concrete presentation of the macroeconomic aggregates in Kalecki's *Theory of Economic Dynamics*.

## 2. Kalecki's model of income and spending

In *Theory of Economic Dynamics*, Kalecki presented his macroeconomic model without explaining what represents each side of his double-entry scheme (figure 1). He simply stated that in a closed economy the national gross product must be equal to investment plus consumption, that the income of workers consists of wages and salaries, and the income of capitalists equals gross profits, including depreciation, rent, interest, etc. From these premises and distinguishing between capitalists' consumption and workers' consumption, Kalecki sets a scheme of the gross product in which gross profits plus wages and salaries must be equal to gross investment plus capitalists' consumption plus workers' consumption. With the additional assumption that workers do not save, workers' consumption equals to wages and salaries.

In the presentation of his double-entry scheme, Kalecki does not use the terms *supply* and *demand*. It has to be inferred that in Kalecki's scheme the left column represents income, while the right column represents spending. But income has to correspond to the money value of the goods and services brought to the market by business activity during a given period (Kalecki usually assumes one year). Wages and salaries plus profits are the money value of what is offered in the market; they are conceptually the aggregate price of supply. This assumes entrepreneurs are selling at cost plus a markup, with cost being just equal to salaries, because the cost of raw materials, machines, and other capital inputs can be vertically integrated and so reduces to the wages and salaries of the workers producing those capital inputs.

On the other hand, the right column represents spending, money flows which purchase the goods and services produced in the same period. Investment represents money flows buying capital goods, while consumption, either of workers or capitalists, refers to money purchasing consumption goods. Overall, consumption plus investment has to represent aggregate demand. To reach the profit equation, Kalecki first equals the two columns; second, he assumes that all wages and salaries are spent in consumption. The corollary is evident: profits have to add up to investment plus capitalist consumption.

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<sup>4</sup> Steve Keen, Secular stagnation and endogenous money, *Real-World Economics Review* No. 66, 2014.

### 3. Say's law crawling in from model assumptions

The only role of money in Kalecki's scheme is as a means of exchange, not as storage of purchasing power. The existence of money is ignored, which amounts to considering money as "a veil," as in classical economics. Let's examine that in detail.

First, let's reinterpret Kalecki's double-entry scheme adding symbols:

Aggregate supply ( $\sigma_t$ )	Aggregate demand ( $\delta_t$ )
Gross profits ( $P_t$ )	Gross investment ( $I_t$ )
Wages and salaries ( $W_t$ )	Capitalists' consumption ( $C_t$ ) Workers' consumption ( $L_t$ )

All symbols in the scheme represent flow variables measured in money units. Sigma ( $\sigma$ ) and delta ( $\delta$ ) are respectively aggregate supply and aggregate demand so that, if  $t$  is measured in years,  $\sigma_t$  and  $\delta_t$  are aggregate supply and aggregate demand during year  $t$ ,  $P_t$  is profits from the start to the end of year  $t$ ,  $L_t$  is workers' consumption throughout year  $t$ , and so on. Then the first column ( $P_t + W_t$ ) represents the aggregate price of the products and services produced throughout the year; the second column ( $I_t + C_t + L_t$ ) represents the money demand that is allocated during the year to purchase the economic output. In this way, Kalecki is stating that supply ( $\sigma_t = P_t + W_t$ ) is equal to demand ( $\delta_t = I_t + C_t + L_t$ ). Therefore,  $\sigma_t = \delta_t$  and

$$P_t + W_t = I_t + C_t + L_t,$$

which means that, in the aggregate, all that is produced is sold; or, in other words, that aggregate supply is equal to aggregate demand. In economics that has always been called "Say's law."

### 4. Money and credit are missing

Kalecki's formulation in which aggregate demand is equal to consumption plus investment ignores money and credit, the former as a deposit of purchasing power, the latter as a means to create purchasing power. Let's see why that is the case.

When hoards of money are mobilized to purchase goods, and  $m_t$  and  $m_{t-1}$  are the quantities respectively hoarded at times  $t$  and  $t - 1$ , the condition for this process creating demand is that  $m_{t-1} > m_t$  so that  $m_{t-1} - m_t > 0$ . Note that this and the other variables symbolized herein with low-case letters are stocks, not flows. The increase in hoards of money from the end of year  $t - 1$  to the end of year  $t$ ,  $m_{t-1} - m_t = \Delta m_t$ , shall be negative for demand being created. The contribution that shrinking hoards of money make to aggregate demand is  $-\Delta m_t$ . Obviously,  $\Delta m_t > 0$  means that active hoarding is reducing aggregate demand.

On the other hand, expanding debts – that is, flows of credit that have financed the purchase of capital goods or consumption goods – contribute to aggregate demand. If  $d_t$  is the total aggregate debt at time  $t$ , then the difference  $d_t - d_{t-1} = \Delta d_t$  is the contribution of credit creation to aggregate demand.

From this it follows that the quantity  $\Delta d_t - \Delta m_t$  is the contribution of expanding debts and shrinking hoards of money to the purchasing power that is spent in the economy between time  $t - 1$  and time  $t$ , that is, during year  $t$ .

Considering all the above, we can restate aggregate demand and aggregate supply as follows:

(a) Aggregate Supply:  $\sigma_t = P_t + W_t$ ,

that is, the aggregate price of supply is equal to profits plus wages and salaries;

(b) Aggregate Demand:  $\xi_t = I_t + C_t + L_t + \Delta d_t - \Delta m_t$ ,

that is, aggregate demand is investment plus consumption plus change in debts minus increase in hoarding.

In recent contributions, Steve Keen has emphasized the key role that money and credit play in our economy and has stated that “aggregate demand is the sum of income *plus the change in debt*”.<sup>5</sup> Keen has also criticized the view of mainstream economics that money is a veil, and has argued against the idea that the aggregate level of debt (and changes in that level) are irrelevant to macroeconomics. For that purpose, Keen has provided econometric evidence that changes in the level of debt are strongly correlated with major macroeconomic indicators – such as the change in unemployment.<sup>6</sup>

But what is the precise meaning of Keen’s formulation that aggregate demand is the sum of income plus the change in debt? It seems that for Keen income means the sum of investment plus consumption, so that what he is saying is that demand is  $\xi_t = I_t + C_t + L_t + \Delta d_t$ . If that is the case, a major element contributing to enlarge or shrink demand would be left out of the picture. That element is the shrinking or expanding hoards of money.

## 5. Potential purchasing power and debt

What would be an appropriate way to expand the notion of aggregate demand as “equal to income plus the change in debt” to properly consider the effect of variations in the level of hoarding on aggregate demand?

Let’s use lambda for liquidity, so that aggregate liquidity or accumulated (potential) purchasing power  $\lambda_t$  is the amount of money hoards minus standing debts at a given time  $t$ , that is  $\lambda_t = m_t - d_t$ . Since at the end all debts have to be paid (except when the system enters into periods of major dysfunction in which debts are cancelled through losses for creditors),

<sup>5</sup> Steve Keen. The “credit tsunami” – Explaining the inexplicable with debt and deleveraging. In: G. Friedman, F. Moseley and C. Schurr, eds., *The Economic Crisis Reader*, Boston: Dollars & Sense, 2009, pp. 44-51 (italics are Keen’s).

<sup>6</sup> Steve Keen, Secular stagnation and endogenous money, *Real-World Economics Review* No. 66, 2014.



we can consider accumulated debt at a given moment as a counterbalancing influence to the potential purchasing power embodied in hoards of money. Then  $\lambda_t - \lambda_{t-1} = \Delta\lambda_t$  is the change in accumulated liquidity from the start to the end of the year. It is directly inferred that  $\Delta\lambda_t = \Delta m_t - \Delta d_t$ . That is, the change in aggregate liquidity is equal to the difference between the change in hoards and the change in debts.

We can consider  $\lambda_t$  as an index of the *potential* purchasing power existing at a given time. In some sense  $\lambda_t$  would be like the potential energy of a pendulum, which is at its highest when the pendulum has zero kinetic energy because it is “at rest” at the extreme of a swing. All other things equal, the higher the volume of hoarded money at a time  $t$ , the higher the potential purchasing power available to buy commodities. By the same token, the higher the volume of debts (that eventually will have to be paid), the lower the potential to purchase goods and services. The quantity  $\lambda_t = m_t - d_t$  is therefore a measure of the potential purchasing power at a given time. But high volumes of hoarded money and low levels of debt are typical of downturns, when economic activity is at minimum levels, bankruptcies have wiped out some debts and others have been paid to use idle cash balances. As Wesley Mitchell put it, during contraction:

the shrinking physical volume of business and falling prices reduce the need for transaction cash; cash balances go on increasing, often faster than they had grown in expansion. This increase comes mainly from the ‘liquidation’ of receivables and inventories. The surplus balances piling up from the decreasing need for and increasing supply of cash are presumably used as far as feasible *to pay off debts* to banks and commercial houses, perhaps to maintain dividends, perhaps to buy marketable securities from which some income may be expected. But, after all such opportunities have been grasped, the corporations of our sample *held their largest cash balances at cyclical troughs*, and these balances enhanced the ability of business managements to increase their purchase of industrial equipment at this lowest stage of business cycles.<sup>7</sup>

During periods of “normal” business conditions, the creation and suppression of debt is related to banking activity – banks giving loans, private citizens or businesses paying them – and to the use of hoards of liquid money to make payments. Since hoards can be used to invest or to pay debts, and the payment of preexisting debts does not contribute toward creating demand, the existence of debts is always a potential leak toward insufficient demand. In conditions of rising (or high) profitability, hoards are mobilized into investment, that is, payments for capital goods, or for wages. In such conditions the circulation of money will tend to accelerate and the general decrease in hoarding will stimulate credit, that is, the creation of debt. This is what happens in periods of expansion. Conversely, in periods of contraction in which profitability is decreasing (or low), investment will decay, the speed of money will decrease, and hoards of money will grow.<sup>8</sup> Some or many debtors will have trouble repaying debts, some of which will be cancelled and, in general, credit creation will be reduced.

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<sup>7</sup> Wesley C. Mitchell, *What happens during business cycles: A progress report*, New York, National Bureau of Economic Research, 1951, p. 148 (my italics).

<sup>8</sup> Cash deposits in banks were at very high levels in the sluggish economy of the fall of 2011 (E. Dash and N. D. Schwartz, In Cautious Times, Banks Flooded With Cash, *New York Times*, Oct. 28, 2011). Also in the peak of financial crisis associated to the Great Recession (when even deposits in banks were considered unsafe) it was reported that sales of safes were at historic heights (M. Wilson, Sales of Safes Boom as the Economy Falter: Looking for Security in a Cube of Steel, *New York Times*, March 6, 2009). Ben S. Bernanke (Nonmonetary Effects of the Financial Crisis in the Propagation of the Great

The quantity  $\Delta\lambda_t$  seems therefore to be an important determinant of aggregate demand. As hoards of money shrink and money is sent into the circulation, it adds up to aggregate demand. As credit is used to purchase capital or consumer goods, debts are created and they contribute to the expansion of aggregate demand.

## 6. Accounting inequalities

Since the aggregate price of what is sold has to be equal to the aggregate price of what is purchased, assuming aggregate demand is sufficient to buy aggregate supply, it will be true that

$$P_t + W_t \leq I_t + C_t + L_t + \Delta d_t - \Delta m_t$$

and since  $\Delta d_t - \Delta m_t = -\Delta\lambda_t$

$$P_t + W_t \leq I_t + C_t + L_t - \Delta\lambda_t.$$

That is, for aggregate supply to be sold so that markets clear, its aggregate price cannot exceed the aggregate income (investment plus consumption) minus the increase in aggregate liquidity.

Since in an annual timeframe like the one we are considering money hoards and credit are long preexisting, it would be absurd to look for any simplifying assumption – such as “money is just a veil” or “investment equals saving” – that could remove them from the picture.

Of course, this inequality, stated on the assumption that there are not unsold goods, does not presuppose that supply creates its own demand, because neither debts nor changes in hoards of money are direct consequences of recent production. Say’s law refers to the aggregate value generated in production, that is, aggregate supply, equaling the value of what is demanded for consumption, without any consideration for money stocks or debts. In our terms, Say’s law assumes that  $P_t + W_t = I_t + C_t + L_t$ . In other terms, Say’s law implies that  $\lambda_t = \lambda_{t-1}$ , so that  $\Delta\lambda_t = 0$ . But that is exactly the assumption on which Kalecki’s model is built.

Kalecki’s assumption that workers consume what they get does not seem unrealistic in a first approximation, so that  $W_t = L_t$ . Then we can simplify

$$P_t + W_t \leq I_t + C_t + L_t - \Delta\lambda_t$$

to

$$P_t \leq I_t + C_t - \Delta\lambda_t$$

or

$$P_t + \Delta\lambda_t \leq I_t + C_t.$$

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Depression, *American Economic Review* 1983, Vol 3, No. 3, pp. 257-276) cited reports that in 1930, at the climax of the Great Depression, money was “available in great plenty” and “accumulating at the centers, with difficulty of finding safe investment.” On the other hand, it has long been known that the velocity of money “has a fairly regular cyclical pattern, falling during contractions and rising—or falling at a lower rate—during expansions” (Milton Friedman and Anna J. Schwartz, *A monetary history of the United States, 1867-1960*, Princeton University Press, 1963, p. 34).

Assuming that all hoards of money and debts are owned by capitalists,  $\Delta m_t$  is the annual increase of liquid money stockpiled by the capitalist class, and  $\Delta d_t$  is the increase in debt of enterprises and individual capitalists, and  $\Delta \lambda_t = m_t - d_t$  is the potential purchasing power of the capitalist class. Then the inequality  $P_t + \Delta \lambda_t \leq I_t + C_t$  tells us that for aggregate demand to be sufficient to purchase aggregate supply, investment plus capitalist consumption must be at least equal to profits plus the increase in purchasing power of the capitalist class. This is simply an accounting inequality without causal implications. When the inequality does not hold, aggregate supply is only partially sold, inventories remain unsold, and there is a recession. But why should investment plus capitalist consumption become smaller than profits plus the increase in purchasing power of the capitalist class? In my view Wesley Mitchell and Jan Tinbergen provided long ago an empirical answer to that question.<sup>9</sup> Marx had theorized on it much before.<sup>10</sup>

Nowadays huge pension funds exist in which savings of workers are pooled and then invested, as well as sovereign wealth funds which convey into global investments the savings owned by national governments. These entities can be considered major objections against the assumptions that workers do not save, and all hoards of money are owned by capitalists. It would be controversial, though, to argue that a sovereign fund such as, for instance one held by the United Arab Emirates, valued at more than one trillion US\$, is the property of the workers of that country. Regardless of the ownership of these large pools of money, what is obvious is that they perform as capital in the global economy, looking for both safety of investment and maximization of returns. A further objection against the assumptions presented earlier is that significant indebtedness of wage-workers is a reality in many nations, which goes against the assumption that only capitalists have debts. These assumptions – which have to do precisely with the role of large volumes of money or debt – should be removed so that these elements are properly considered in a more developed model. Any model implies abstraction, and “all models are wrong,” though some approximate reality better than others.

There was an early tradition of institutionalist economics which emphasized the importance of money and which labelled capitalism precisely as “the money economy,”<sup>11</sup> but departing from that tradition, mainstream economics during the 20<sup>th</sup> century emphasized the idea of “the veil of money.” That veil would obscure the actual nature of the real economy in which – supposedly – goods are produced and swapped back and forth. Even Paul Samuelson in his textbook referred with disdain to “the social contrivance of money” since “if we strip exchange down to its barest essentials and peel off the obscuring layer of money, we find that trade between individuals and nations largely boils down to barter.”<sup>12</sup> In a way that strongly contrasts with this tradition, Marx thought about money as a key element of the economic system ruled by capital, in which it is the existence of money itself which implies the possibility of crisis. In his sketchy model of expanded reproduction, he came quite close to showing it formally.

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<sup>9</sup> Wesley C. Mitchell, *Business cycles*, University of California Press, 1913. Jan Tinbergen, *Statistical Testing of Business-Cycle Theories: Volumes I and II*, Geneva, League of Nations, 1939. Jan Tinbergen, *The dynamics of business cycles: A study in economic fluctuations* (translated from the Dutch and adapted by J. J. Polak), Chicago, University of Chicago Press, 1950.

<sup>10</sup> J. A. Tapia Granados, Does investment call the tune? Empirical evidence and endogenous theories of the business cycle, *Research in Political Economy*, 2013, vol. 28, pp. 229-259.

<sup>11</sup> Wesley C. Mitchell, *Business cycles*, University of California Press, 1913, p. 21.

<sup>12</sup> Cited by David Graeber in *Debt: The first 5,000 years*, Brooklyn, NY, Melville House, 2011, p. 44.

## 7. Aggregate supply and aggregate demand in expanded reproduction

According to Marx's schemes of reproduction,<sup>13</sup> the total value of the commodities produced in a year can be represented as  $c + v + s$ , where  $c$ ,  $v$ , and  $s$  are respectively the values of constant capital, variable capital, and surplus value. Under conditions of simple reproduction, that is, when production is just sufficient to maintain the level of value produced in the previous year, and using the subindices 1 and 2 to indicate the production departments of capital goods and consumption goods respectively, the value of the supply of capital goods is  $c_1 + v_1 + s_1$ , while the value of the supply of consumption goods is  $c_2 + v_2 + s_2$ . The demand for capital goods is  $c_1 + c_2$ , while that for consumption goods demanded by workers expending their wages as well as by capitalists expending all their profits in consumption, is  $v_1 + s_1 + v_2 + s_2$ . Assuming supply is equal to demand in any or both departments, it is inferred that  $c_2$  must be equal to  $v_1 + s_1$ . Since this seems perfectly conceivable, it can be concluded that simple reproduction is at least possible.

Marx was explicit in presenting simple reproduction as just an unrealistic model, albeit useful for heuristic purposes.<sup>14</sup> Expanded reproduction, in which part of profits is reinvested to expand production, would be a much more realistic model. In expanded reproduction, total surplus value  $s_1 + s_2$  can be (i) spent on consumption goods produced in sector 2 ( $s_c$ ); (ii) used for capital accumulation by buying extra capital goods produced in sector 1 ( $s_a$ ); (iii) used for the expansion of production by paying extra wages ( $s_w$ ); or (iv) hoarded as money ( $s_h$ ). Thus, the value of aggregate production for a year in both departments is

$$\sigma = c + v + s_c + s_a + s_w + s_h.$$

This expression giving the value of total supply includes  $s_h$ , which is the fraction of surplus value that flows into hoarding. All other elements in the expression represent the value of commodities or the value of the labor force, but  $s_h$  does not have such a correspondence; it is "pure money" and therefore the comparison of this expression with simple reproduction illustrates how the scheme for simple reproduction is a barter scheme in which there is no money.

Under expanded reproduction, demand for capital goods is  $c + s_a$  and demand for consumption goods is  $v + s_c + s_w$ . Therefore, total aggregate demand is

$$\begin{aligned} \delta &= c + s_a && \text{(demand for capital goods)} \\ &+ v + s_c + s_w + s_h && \text{(demand for consumption goods).} \end{aligned}$$

Thus, aggregate supply and aggregate demand are respectively

$$\begin{aligned} \sigma &= c + v + s_c + s_a + s_w + s_h, \text{ and} \\ \delta &= c + v + s_c + s_a + s_w. \end{aligned}$$

From these equations it is immediately inferred that  $\sigma \leq \delta$ , meaning that there are no unsold goods, is possible only if  $s_h = 0$ , that is, if capitalists do not hoard money. Though Marx does not arrive at this conclusion, he gets close to it. Indeed, he states that the fact that at different

<sup>13</sup> Karl Marx, *Capital - A critique of political economy* (Volume 2, ed. by Friedrich Engels [1885], transl. by D. Fernbach), Penguin, 1981, chapters 18-20.

<sup>14</sup> Marx, *Capital*, Volume 2, ch. 20, pp. 470-471.

points capitalists withdraw money from circulation and put it in hoards appears “as an equal number of obstacles to circulation, because they immobilize the money and deprive it of its capacity for circulation for a longer or shorter time.”<sup>15</sup> In the final analysis, for Marx the root of the possibility of crisis is the existence of money. The realization problem implied by the lack of money to buy the produced mass of commodities as soon as hoarding takes place (a problem that overwhelmed Rosa Luxemburg) was solved by Marx by referring to masses of money hoarded in previous years, so that “the quantity of money present in the society is always greater than the part of this that is in active circulation, even if the latter rises and falls according to circumstances.”<sup>16</sup>

## 8. Concluding remarks

It is generally agreed that economic dynamics deals with the study of the phenomena variously referred to as macroeconomic fluctuations, business cycles or trade cycles.<sup>17</sup> Since the 18<sup>th</sup> century, these fluctuations or cycles have been characterized by periods variously referred to as revulsions, general gluts, crises, panics, depressions, stagnations, or recessions – in which goods and services overflow in markets. As Wesley Mitchell once explained, serious efforts to explain business crises and depressions began along with the violent fluctuations in trade which followed the Napoleonic Wars, in the 1810s, after a century or more in which Europe had been experiencing at intervals speculative manias, glutted markets, and epidemics of bankruptcies. However, it was not the orthodox economists who gave the problem of crises and depressions its place in economics. Smith and Ricardo were concerned primarily with elucidating principles which hold in the long run, and paid almost no attention to the recurrent oscillations of trade. To them, crises and depressions were not among the central problems of economic theory. To force into prominence the fact that economic activities are subject to recurring crises was the work primarily of authors who were critics, not merely of orthodox economics, but also of modern society – men such as Sismondi, Rodbertus, and Marx.<sup>18</sup> The general glut controversy was the occasion upon which Jean Baptiste Say came into prominence. Since then, Say’s law has had a constant presence, assuming away recessions and depressions that, nevertheless, have occurred time and again. As it was once said, facts are stubborn things. As for the previous discussion, for developing a theory of economic dynamics, an equation that presupposes Say’s law does not seem to be a good start.

Historical experience shows that periods of contraction in which markets do not clear because demand is insufficient are a constant to be recurrently expected in a market economy. But it would be a mistake to think that the market clearing that occurs in periods of “normal” growth represents an equality of supply and demand. During these periods of expansion, the unregulated economy by itself tends to produce increases in prices, profits, wages, interest rates, debts, and many other economic variables. Probably the simplest model of the “free enterprise system” is one in which the economy never fits Say’s law because it oscillates between upturns in which demand exceeds supply and downturns in which supply exceeds demand. But such model is at odds with most of what academic macroeconomics has produced in the past half-century. In the spirit of real-business-cycle theorists, the alternation

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<sup>15</sup> Marx, *Capital*, Volume 2, ch. 21, p. 568.

<sup>16</sup> Marx, *Capital*, Volume 2, ch. 21, p. 569.

<sup>17</sup> Fritz Machlup, Statics and Dynamics: Kaleidoscopic Words, *Southern Economic Journal* 1959, Vol. 26, No. 2, pp. 91-110.

<sup>18</sup> Wesley C. Mitchell, *Business Cycles: The Problem and its Setting*, New York, National Bureau of Economic Research, 1927, pp. 4-6.

between excess supply and excess demand may be conceived as a fluctuation around a long-run equilibrium path. If such is the case, a drunkard hitting alternatively the right and the left wall of a narrow alley could be also considered as oscillating around an equilibrium path.

In modern analyses of economic conditions in general, or the Great Recession in particular, much attention has been paid to consumption and consumers' feeling, as if these elements were the key factor in pulling the economy out of troubled waters. Marx would have been very skeptical about that. For him, a necessary condition for the overall mechanism of capitalist economy is that the class of owners of capital must itself cast into circulation the money needed to circulate its surplus value.

For here there are just two classes: the working class disposing only of its labour-power, and the capitalist class, which has the monopoly of the means of social production, and of money. It would rather be a paradox if, instead, it was the working-class that initially advanced the money required to realize the surplus-value contained in commodities, out of its own resources. The individual capitalist, however, effects this advance only by acting as buyer, *spending* money on the purchase of means of consumption or *advancing* money on the purchase of elements of his productive capital, either labour-power or means of production. He only ever parts with the money in exchange for an equivalent. He advances money to circulation only in the same way that he advances commodities to it. In both cases, he acts as the starting point of their circulation.<sup>19</sup>

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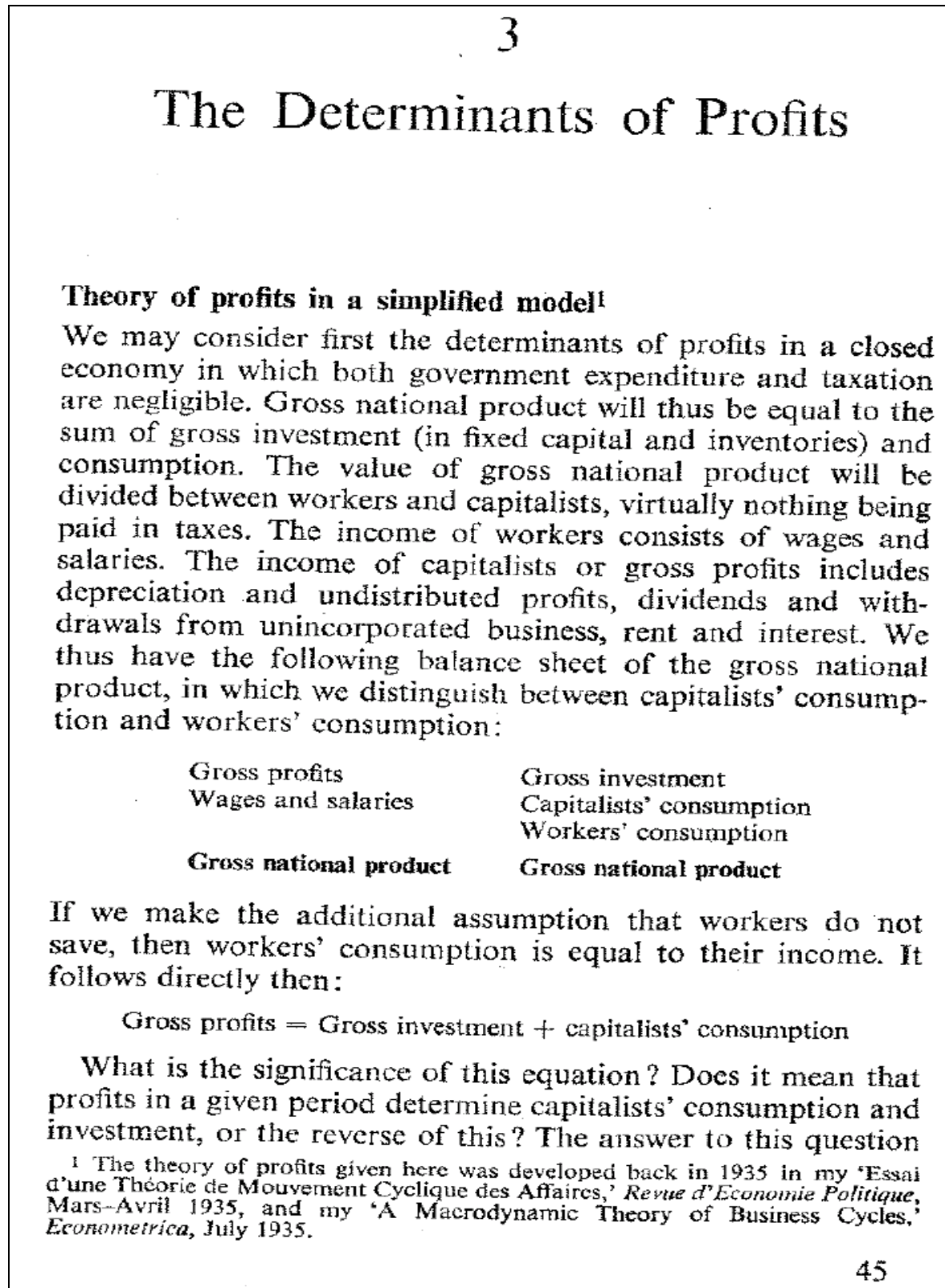
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<sup>19</sup> Karl Marx, *Capital*, Volume 2, ch. 20, p. 497.



Figure 1. First page of chapter 3 of Kalecki's *Theory of Economic Dynamics* (London, George Allen & Unwin, 1954).





# Asymmetric information, critical information and the information interface

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## Abstract

This article suggests that information issues in economics have been misunderstood because they have been approached as modifications to the neoclassical assumption of perfect information. The idea of 'asymmetric information' has been for the most part accepted as accommodating information issues without terminal damage to the neoclassical model. To those outside the neoclassical theory group, disparities in information and the advantages they imply are taken for granted. With the theory of support-bargaining and money-bargaining it is shown that information plays a much wider and more crucial role in social and economic intercourse. An 'information interface' forms the focus of economic exchange and the evolution of economies. This interface is itself a product of social and economic bargaining processes. While Joseph Stiglitz makes clear the destructive implications of asymmetric information for neoclassical theory, he still chooses to work within the neoclassical framework, rather than pursue a wholly new paradigm. Yet he recognises that an evolutionary theory of economics is required.

It was suggested in an earlier article for the Real-World Economics Review (Spread, 2012) that much of the mainstream economics of the twentieth century was devoted to reconciling the mathematical model of neoclassical theory, largely established by the end of the nineteenth century, to observable realities. This work of reconciliation involved modifications 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. The modifications related very specifically to the neoclassical model. The neoclassical theory group had itself established the misconceptions that needed reconciliation. Outside the theory group the need for reconciliations did not arise because the observations that prompted the need for reconciliation with the neoclassical model were largely matters of commonplace acceptance.

## Support-bargaining and money-bargaining

This article is written on the basis of a theory of support-bargaining and money-bargaining. The following is a summary of the essentials of the theory. Further work on the subject is listed in the references at the end of this article. A full list of publications to the end of 2012 is given in the World Economics Association Newsletter No. 69, December 2012, p. 4.

The primary concern of individuals is self-preservation. In response to any sense of insecurity, humans seek the support of those around them. They adapt their opinions and behaviour to obtain the support of others. At the same time, they retain selfish individual impulses. The outcome is a process of 'support-bargaining' (SB) by which individuals obtain the support they need with as little compromise of their own interests as possible.

SB takes place in social, political and intellectual spheres. In the political context, it implies what is in effect a 'support convention' whereby support substitutes for violence. A 'democracy' is a support-bargaining society. In the intellectual context, SB gives rise to theory-formation.

Support is an imprecise bargaining counter. Support-bargaining is often ambiguous. To deal with material exchange SB has created 'money' as a bargaining counter. Being material, divisible and precise it is well-suited as a bargaining counter involving in particular the exchange of material things. 'Money-bargaining' (MB) is exchange using money.

In both SB and MB agents select by reference to situation. Consumers, for example, form 'bargaining sets' comprising products that fit their situation and select the best fit from the bargaining sets.

The 'situation' includes a budgetary situation. Bargaining sets are constrained by budgetary situations.

Organisations are understood as bargaining agencies. They combine inputs to give strong bargaining positions. Companies are understood as specialist MB agencies. They are generally the strongest bargaining agencies of MB systems. They combine inputs to create and deliver attractive products or services. They also contrive to limit competition to themselves.

Companies 'format' so that, as a minimum, their revenues cover their costs. Unit costs, production, prices and sales must be established in such a way as to meet the viability condition. The four variables are interdependent. Technology of products and processes plays a major part in the establishment of viable formats.

Location can play an important part in the achievement of viability. Unit costs can be reduced by good location, and competition can be attenuated.

Agents of bargaining systems all seek to advance their interests by purveyance of information. SB and MB create an information interface in which SB and MB is carried on. The media are important agencies of SB systems. In an MB system, advertising companies specialise in the purveyance of information on behalf of other companies.

Situation determines requirements of the agents of SB and MB systems. It also determines what they can provide, since 'situation' incorporates the idea of 'capacity.' An individual's situation incorporates a capacity to perform certain tasks. A company's situation similarly incorporates capacity to provide certain goods and services.

The situation-related selection processes of SB and MB mean that the whole system evolves over time from situation to situation.

MB systems require infrastructure, education and extensive protection of agents against false and misleading information. The growth of an MB system depends on effective promotion and regulation through the SB system.

It will be apparent that the idea of SB and MB involves a quite different dynamic from that of neoclassical economic theory. Major points of difference may be summarised as:

Agents of an MB system build bargaining positions, involving many considerations in addition to price.

Product differentiation is a major factor in the building of bargaining positions. Products are developed to fit into the bargaining sets of buyers.

MB is concerned with exchange, rather than the allocation of resources. Resources are absorbed as required and as available.

People are conceived as agents of MB systems, rather than a resource.

Companies are specialist MB agencies, and not the small processors of resources of neoclassical understanding.

The company viability condition involves unit average costs, rather than marginal costs, and the interdependence of sales, price, unit costs and production.

Technology is of central importance to the viability of companies.

Location is often a critical factor in the viability of companies.

There is no 'perfect information.' Information is provided by the agents of an MB system to advance their interests. The information interface is used to build bargaining position.

Valuation and selection is by reference to situation, rather than by reference to marginal utility or marginal preference.

Space and time constitute components of situation. Bargaining sets are constrained by these elements of situation.

Part of a reference situation is the budget situation. Budgets reconcile time disparities between revenues and expenditures. Neoclassical theory has no concept of this function of budgets.

Companies set prices by reference to unit cost, adjusted in accordance with bargaining position.

While the neoclassical system is conceived as self-sufficient, an effective MB system requires extensive state engagement. SB and MB implies a 'political economy.'

States are extensively involved in MB through their budgets, though budget management is a matter of SB. States also provide infrastructure, education, regulation and other services necessary to an MB system.

'Money' is the bargaining counter for an MB system. Money is a creation of SB and requires continued management through the SB system.

MB implies an evolutionary process, rather than reversion to equilibrium.

The idea of asymmetric information addresses one of the most essential but also one of the most surreal assumptions of neoclassical theory – perfect information. An important impulse in the creation of the neoclassical model was the aspiration to match the status of knowledge in the social sciences to the status widely accorded to the knowledge of the natural sciences, and in particular that of physical science. Mathematics appeared to be the key to unlocking the secrets of the physical world, and it seemed reasonable to suppose that it might be the key to unlocking secrets of the economic world. The concern of economics with physical 'products' gave an immediate affinity with the subject matter of physics, suggesting that the adoption of the distinctive tool of physics might be utilised successfully in economics. The natural sciences had not found it necessary to assess the implications of the process of their own observation, so there seemed no reason why economic theorists should burden themselves with such complications.

Such complications were further avoided by focussing economic attention primarily on a natural scientific objective rather than on human behaviour. The neoclassical model was concerned with the optimal allocation of resources. Human nature and human interest were of secondary concern. They were regarded as adequately reflected in the idea that humans as workers would maximise their incomes, as consumers they would maximise their utility, and as owners of land and capital they would maximise their returns. Human nature and human interest were simple and self-evident.

These preconceptions made the ordinary course of buying and selling a simple process. People buying, for example, wheat, a chair or a bicycle could observe, inspect and test what was on offer and if it met their requirements of utility, or ranked high enough in their preferences, then they paid the seller for it. The seller had only to produce and present items for sale on 'the market'.

Complications naturally arise when the product and process are not that simple. In the 'market' for health insurance, for example, the seller cannot just present his product for sale at an established market price. In a simple product sale, the buyer gets a product and the seller gets money. In the case of health insurance, the buyer gets relief from risk, but the seller gets

risk, as well as money in the form of a premium. The seller is taking on a risk, and needs to know the nature of the risk before he can set a price for taking it on. The nature of the risk depends on the health situation of the buyer, so the seller needs to know the situation of the buyer – his or her state of health. A seller of health insurance will commonly require that a client fills in a form giving details of current and past medical conditions and treatments, as a means of ascertaining the health situation of the buyer.

A buyer knows his or her own state of health, and knows the terms of the insurance will be affected by his or her state of health. If he or she records bad health and much medical treatment on the form, he or she will face a high premium for health insurance. Declaration of certain conditions may mean that health insurance is refused altogether. Furthermore, the worse the buyer's health, the more he or she is likely to want health insurance, and the more he or she will be inclined to withhold information on the form, or even provide false information. There is great scope and great motivation for the buyer to misrepresent the degree of risk that he or she wishes to transfer to the seller. The seller is, at the same time as he or she sells insurance, acquiring risk, with potentially large costs.

These circumstances are understood as a state of 'asymmetric information', a state most extensively investigated by Joseph Stiglitz (esp. 1985, 2000, 2005). The term originates with George Akerlof's study of the market for cars. Akerlof's mathematical model (1973, pp. 489-92) contrasts a state in which a seller knows the quality of the car he has to sell, while the buyer does not, with an earlier state in which seller and buyer have the same information. Akerlof identifies the gain in utility arising from the symmetrical state of information, as compared with the asymmetric state. The term 'asymmetric information' has, however, come to be used more loosely for circumstances in which one agent is better informed than another, without contrasting that position with a position of symmetric information. In Stiglitz's account (2002, p. 469) it refers specifically to the 'fact that different people know different things'. The contrast is more with the state of perfect information assumed in the neoclassical model than with a position of symmetric information, in the sense of equal information. The term 'asymmetric information' is then not entirely apt. People having the same information is not the same as perfect information, even if perfect information implies that everyone has the same perfect information. An assumption that people have the same information would be almost as absurd in the real world as the assumption of perfect information. It would hardly be appropriate in a thesis like that of Stiglitz, which tries to take neoclassical theory closer to reality. There seem to be no theories, other than that of Akerlof (1970), that specifically identify or conceive symmetric information as a 'base case', least of all common understanding. The focus on 'asymmetric information' rather than simply imperfect information means that the information issues even within the neoclassical model are not, as Stiglitz (2002, p. 473) recognises, fully covered by analysis of asymmetric information. But more importantly the discussion of 'asymmetric information', conducted within the confines of neoclassical theory, fails to deal with the information issues of the real world.

The retention of the term 'asymmetric information' for circumstances which it does not accurately describe is perhaps attributable to its ready appeal. Symmetry is, after all, important, though its social importance is little researched.<sup>1</sup> The term has been highly effective in attracting attention to the problem of information in neoclassical theory. But the real-world importance of information lies not in the breaking of any supposed symmetry, but in its role in a much broader dynamic where relevant information is of paramount importance.

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<sup>1</sup> On the role of symmetry in society, see Spread, 2013, Chapter 10: Social Symmetries.

The theory of support-bargaining and money-bargaining offers an explanation of this wider role. In the previous article (Spread, 2012, pp. 41-2) a brief account was given of this theory.<sup>2</sup> The box above provides a short introduction. Individuals are conceived as adapting their opinions and behaviour to those of their associates in order to acquire the support that is essential to their sense of physical and psychological security. Money-bargaining derives from support-bargaining, using money instead of support as the bargaining counter. One important feature of the theory is that, instead of a simple theory of consumer 'utility' or 'preferences', it suggests that the agents of bargaining systems judge their interests by reference to their situations (see also Spread, 2011). Thus in political support-bargaining, politicians will base their economic policy proposals on the current state of an economy. In money-bargaining, consumers buy chairs that fit the rooms of their house, bicycles that fit their patterns of movement and clothes that will fit their bodies and social situations. An employer will assess the current situation or capacity in his or her company and recruit to fill the gaps. Under this conception, consumer 'utility' is understood in terms of fit to current situation, and consumer 'preference' is determined by reference to an existing situation. Consumers 'fit' acquisitions to their situation, as a chair may fit nicely into the living room, or a bicycle may relieve the difficulties of a situation in which walking is the only available means of short-distance transport. If there is symmetry of information, it is that of each person knowing their own situation – one of the basic patterns identified in the theory of support-bargaining and money-bargaining. People may also be understood as identifying their preferences in relation to their situation on the basis of a sense of symmetry – the chair fits nicely in the living room on the basis of a sense of symmetry (Spread, 2013, pp. 244-5).

The client for health insurance is then responding to his or her situation. Health is at risk, and the consequences of health failure are costly. The worse the situation, the more insurance is needed for relief. A seller of health insurance is offering to take on some of that risk for a fee. But before the seller will take on that risk, or acquire that risk, he or she needs to know the extent of it. He or she needs to know the situation regarding the health of the client.

Asymmetries of information in the sense defined above (Stiglitz, 2002, p. 469) are not necessarily any great problem. For the most part, the holders of information that is necessary to the conclusion of a transaction will readily provide it. Forms are mostly filled in. Clients for health insurance will mostly provide a record of their health. A person applying for a job will readily provide information about their situation and capacities where they know these are likely to meet the requirements of the position on offer. If their capacities do not meet the requirements of the position, they will probably not apply.

The problems arise with information that is potentially detrimental to the interests of a client or applicant. A client for health insurance may decide that a high incidence of diabetes in their family is not relevant to their own application for health insurance. Yet in the eyes of the provider this may constitute vital information for the assessment of the risk they are taking on. It may make a significant difference to the premium charged on the insurance. Some information may be critical, in the sense of determining of itself whether a transaction can be agreed or not. A client for health insurance who has had a heart attack in the past six months may know that disclosure of such information will result in a refusal of insurance. He or she may nevertheless choose to withhold that information to get a certificate of health insurance, hoping perhaps that the truth will not emerge even when a claim is made, or perhaps to use

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<sup>2</sup> For further account of support-bargaining and money-bargaining see Spread, 2013. For earlier references, see World Economics Association Newsletter No. 69, December 2012, p. 4, <http://www.worldeconomicsassociation.org/files/newsletters/Issue2-6.pdf>

the certificate in some other context, such as a job application. Asymmetric information of itself is only important if you have been so unwise as to assume perfect information. The real-world problems of information arise with the withholding of relevant, vital or, most particularly, critical information, where relevant information is information that might or will affect the terms of a transaction, vital information is information that will certainly affect the terms of a transaction, and critical information is information that might of itself make or break a transaction.

The acute problems arising with the provision of health insurance have their origins in the nature of the 'product'. Health insurance is defined almost entirely by testimonial information. Epistemologists understand knowledge as deriving from different sources: perception, introspection, memory, reason, and testimony (Steup, 2014). None of these provides wholly dependable knowledge, but we tend to attach greater credence to knowledge derived from perception than to knowledge derived from testimony. That is, we tend to accept 'the evidence of our own eyes', but we know people can lie and dissemble. Things like wheat, chairs and bicycles can be evaluated on the basis of perceptual information. But health insurance is provided on the basis of testimonial information.

The associated or second problem is that an essential part of the testimonial information that defines the 'product', or defines the transaction, has to be derived from the buyer. While in normal monetary transactions the buyer buys in accordance with his or her assessment of his or her own situation, in health insurance the seller is acquiring risk that is contingent on the situation of the buyer. Testimonial information defining the transaction has to be derived from the buyer, and the buyer has a clear interest in providing information that will influence the terms of the transaction in his or her favour.

In the case of health insurance, the market is created by testimonial information. Without such testimonial information, it would not be possible to buy and sell health insurance. With transactions so heavily dependent on information, the quality of available information naturally becomes a major issue. The risks of the market contracting and even closing down altogether if information proves to be inadequate are apparent. Given the obvious temptations for buyers of health insurance to provide misleading and even false information, the prospects of market extinction seem strong. Health insurance only continues to be sold because the industry has been able to establish sufficient safeguards to reduce the risks associated with false or misleading information to manageable levels. The greater part of these safeguards derives from legislation established through support-bargaining systems. Failure of a buyer to disclose vital and critical information will mean that a risk has been transferred to a seller of insurance under false pretences, and any insurance contract will be invalid.

Asymmetric information of itself is a concern of neoclassical economists because it challenges one of their most essential assumptions. But most of the asymmetries of information are readily resolved through transmission of information by agents with an interest in ensuring that their counterparts possess all the information that is likely to further a transaction. Real world problems remain in the potential withholding of relevant, vital or critical information that is detrimental to the interests of the holders of such information. In the real world, it is commonplace that some people will be better informed than others in transactions, and that they may take advantage of their superior knowledge. The general remedy is that noted above in the context of the provision of health insurance. Legislation is established through support-bargaining systems requiring disclosure of information relevant to transactions, with a transaction potentially void if the disclosures are not made. These are, of



course, measures established outside a strictly economic system, but it is only the neoclassical theory group that sustains the notion of an economy functioning independently of social and political processes. The idea of support-bargaining and money-bargaining understands them as inseparably interlinked. It is the interlinking, giving rise to the protection against risk in money-bargaining that is so very apparent in health insurance, that has made money-bargaining so extensively viable and made possible its spectacular evolution.

### **Credit, employment and 'lemons'**

Stiglitz (cf. 2002, pp. 469-70) frequently illustrates his theory of asymmetric information by reference to the provision of health insurance, provision of credit, recruitment for employment and the car market. He remarks (Stiglitz, 2002, pp. 469-70):

Much of the research I describe here focuses on *asymmetries* of information, the fact that different people know different things. Workers know more about their own abilities than the firm does; the person buying insurance knows more about his health...than the insurance firm. Similarly, the owner of a car knows more about the car than potential buyers; the owner of a firm knows more about the firm than a potential investor; the borrower knows more about the riskiness of his project than the lender does; and so on.

The provision of credit involves similar considerations relating to risk as are present in the provision of health insurance. What is provided is defined entirely through testimonial. The provider acquires risk that is contingent on the situation of the client. The problems lie in potential withholding of relevant, vital or critical information known only to a client for credit and detrimental to his or her interests. The problem has exercised providers of credit since credit began. It has significantly inhibited the growth of banking services. For centuries credit tended to be available only to those who had some personal or social connection with the provider (Mokyr, 2011, pp. 220, 224). This meant, in effect, that in the absence of a political support-bargaining system capable of establishing and enforcing protection for providers of credit, the social support-bargaining network was used to provide protection. Clients guilty of providing false or misleading information would lose the support of their social group. Legislation and effective enforcement of legislation – that is, the formal political support-bargaining system – has increasingly protected providers of credit and permitted the widening and deepening of credit provision.

With regard to recruitment for employment, positions are reversed. Sellers of services under employment – applicants for employment – know their own situations and are in a position to withhold information relevant, vital or critical to the employment from the buyer. The buyers of employment services assess the situations or capacities of their companies and will want to take on employees to fill the gaps. A company may want someone who holds a driving licence, speaks French and is willing to work at weekends. Candidates for the post are likely to be required to fill in a form or respond to questions at interview designed to establish that they have the capacity to provide this sort of service. As noted above, applicants for employment will normally be very ready to provide the information that confirms they have the required capacities. Problems arise only with information that has negative connotations for a successful deal. Applicants may be inclined to exaggerate their linguistic capacities, or may omit to mention that they already have nine penalty points on their driving licence, or may omit to mention that weekend work would only be undertaken with reluctance. The more

desperate an applicant is for employment, the more they are likely to misrepresent their capacity to meet the requirements of the post. Recruiters can nevertheless probe the veracity of information provided. Ability to speak French is easily confirmed. Failure to disclose relevant, vital or critical information can in some cases void a contract. Provision of false information is likely to invalidate a contract. In the context of situation-related valuation and selection, the requirements for information are easily understood and there are common means of gaining essential information that have proved at least sufficient to maintain very large employment markets. The problems can on occasions be acute, but they are quite different to those encountered by neoclassical economists coming to the issue with assumptions of perfect information in an economy wholly removed from any social or political factors.

This requirement that the characteristics of the applicant for employment fit the situation of the employer necessarily limits the scope of competition. A person who fits the requirement of one employer may be of no interest at all to another. Stiglitz, (2002, pp. 470-1) presents his analysis of employment selection in terms of 'ability' alone. The assumption is that all employers want 'ability' and hence there is potentially a competitive market for employment, differentiated only according to different levels of ability. There is market imperfection, but the neoclassical concept is retained. In contrast, buyers in a money-bargaining system select from bargaining sets comprising the goods and services that have features fitting to their situation (Spread, 2008, pp. 78-87). In the above example, the buyer establishes a bargaining set that includes only those who speak French, have a driving licence and can work at weekends.

Health insurance, credit provision and employment form a trio of exemplars for asymmetric information because the 'products' are all defined entirely or very largely in terms of information, and an essential part of the defining information has to be derived from one of the agents involved, who has a potential interest in misrepresentation.

The nature of the 'product' introduces further ambiguities into these transactions. In the case of health insurance and credit, the provider is taking on or acquiring risk, as well as being paid. He or she is plainly acquiring something, as well as providing something. In the case of employment, the applicant is offering to provide services under an employment contract, but wants to receive 'a job'. The potential employer is offering a job. The applicant is offering to provide, but also wanting to receive, while the provider is understood as providing employment, as well as buying services. The two-way flows of risk and advantage, all defined in terms of testimonial information, blur the common distinction between seller as the receiver of money for what is provided and buyer as the payer of money for what is received. It is necessary that the information that constitutes the 'product' meshes with the situations or capacities of the two agents involved. Money can then pass from buyer to seller to settle the transaction.

The fourth exemplar of asymmetric information is the market for cars. As noted above, the term 'asymmetric information' originates with George Akerlof's (1970) account of the market for cars. Akerlof constructed a model showing that under certain assumptions cars of good quality can be displaced in a market by 'lemons', or cars of bad quality. The model assumes two classes of car – new and used – and two qualities – good and bad. It is impossible for buyers to tell the difference between a good and a bad car. People buy a new car assuming it to have a certain quality, but then an asymmetry of information develops, since the owner discovers the true quality of the vehicle. Since buyers cannot tell the good from the bad

quality vehicles, vehicles all sell at the same price, so that whether an owner/seller has a good quality or a bad quality vehicle, he gets the same price. Nor can a used car get the same price as a new car. So, according to Akerlof (1970, p. 489), '...the owner of a good machine must be locked in. Not only is it true that he cannot receive the true value of his car, but he cannot even obtain the expected value of a new car'. So the good cars tend to be withdrawn from the market.

In the extreme, a market can be entirely eliminated by concerns over the quality of vehicles on offer. It is possible to have (Akerlof, 1970, p. 490), 'the bad driving out the not-so-bad driving out the medium driving out the not-so-good driving out the good in such a sequence of events that no market exists at all'. This is shown in a second model based on various assumptions, principally that the demand for cars depends on the price and average quality, and that all traders are von Neumann-Morgenstern maximisers of expected utility. The ambivalent conclusion to the analysis is that (1970, p. 491), '...with price  $p$ , the average quality is  $p/2$  and therefore at no price will any trade take place at all: in spite of the fact that *at any given price* between 0 and 3 there are traders of type one who are willing to sell their automobiles at a price which traders of type two are willing to pay'.

Akerlof acknowledges that his model lacks realism, but pleads in extenuation that his exposition is for 'ease in understanding' (1970, p. 489) and 'to avoid a diversion from the proper focus' (1970, p. 491). This means only that the assumptions are chosen so that the mathematics shows sellers will withdraw good vehicles from the market. There is no attempt to review the value of the model with more realistic assumptions. Akerlof did not expect his readers to quibble over realism. His mathematical analysis has been accepted as revealing that markets can be extinguished by problems of asymmetric information, though it shows only that such extinction is improbable. Towards the end of his article Akerlof (1970, pp. 499-500) accounts for the existence of car markets and other markets that might be run down by reference to the provision of guarantees, the use of brand names and various forms of licensing and certification. While a guarantee protects the buyer of a vehicle from unidentified defects, it will not affect the withdrawal of vehicles from sale by a seller, as envisaged in Akerlof's mathematical description (1973, p. 489-90) of the extinction of markets, unless the price payable rises with the provision of a guarantee to a level that the seller regards as the true value of his vehicle..

Akerlof (1970, pp. 492-4) suggests that the provision of health insurance is similar to the car market. People may be refused health insurance because they are a bad risk at the premiums prevailing. In this case, however, it is the buyer who holds the information relevant to the transaction, rather than the seller. In the car market, in Akerlof's analysis, the seller of what he knows to be a good car holds off the market because he cannot get a reasonable price for it. In the provision of health insurance, the seller may hold off because the buyer refuses to release information relevant to the transaction. The analogy with the car market would hold only if the buyer of the car had to tell the seller the quality of his car. The requirement that the buyer release information in the provision of health insurance makes the market peculiar in comparison with the car market. It makes apparent the limitations of the analogy with the car market. It also makes apparent the potentials for extinction, or at least contraction. In the car market, buyers may decline to buy cars if they assess the risk of acquiring a 'lemon' as too high. In the market for health insurance, sellers may decline to provide insurance if they think they have inadequate information from buyers to enable them to assess properly the risk they are taking on.

A further important difference lies in the kind of 'products' involved. As was seen above, health insurance is defined in terms of testimonial information, so that failures in the testimonial composition of the product can mean that it is entirely unacceptable. The seller may have no way of acquiring the testimonial information necessary to establishment of the risk he or she is taking on. In the car market a physical object is involved. Consequently there is perceptual information available about the product, and consequently less scope for doubts over information to be so critical as to eliminate a market altogether. Akerlof assumes that it is not possible to know the quality of cars on sale, but although it will not be possible to gain perfect information, it is normally possible to ascertain the condition of a vehicle with sufficient confidence for a transaction to go ahead, with appropriate adjustments to terms in the light of the findings of inspection.

Akerlof's account of the car market assumes that neoclassical market conditions are operative for price formation, in that a single market price is assumed. But at the same time the neoclassical requirement for homogeneous products is breached – cars are distinguished by quality, even though a buyer cannot identify the different qualities. The assumption of homogeneous products is essential to the mathematics of the neoclassical model, and essential to its optimal allocation of resources. As was seen above, in the concept of money-bargaining, buyers form bargaining sets comprising those products or suppliers that provide features fitting to their situation, including their budget situation. One buyer will have a lifestyle that implies a requirement for an open-top sports car, or a vehicle powerful enough to tow a caravan. Another will live in circumstances that imply the need for an estate car or a four-wheel-drive off-roader. Both will be looking for a vehicle whose price can be accommodated within their budget. Both will want a vehicle that is reliable. Certainly neither will want a vehicle with the kind of defect that would mean writing it off after a short time – that is, a vehicle with a critical defect. The presence of most of the features required will be apparent even from casual inspection – that is, from perceptual information. Close inspection is likely to reveal vital information and critical defects. Because of this differentiation of products by reference to features that fit the situations of buyers, the information requirements of the agents of a money-bargaining system are extensive. But for acquisition of physical objects, the required information is mostly available as perceptual information and the potential problems are significantly less than in the acquisition of products that are entirely or very largely defined by testimonial information.

Akerlof's (1970, pp. 499-500) guarantees give additional protection, covering buyers against defects that may not be apparent from inspection, or which emerge after the car has been bought. They constitute a form of insurance, for which the buyer pays, even though they may appear as a generous provision of the seller. They are products defined by testimonial information, like health insurance. They transfer some of the risk of 'lemons' to the seller. Since the seller, unlike in health insurance, controls information about the relevant situation – the state of the vehicle – the transfer of risk to the seller seems appropriate. The transfer of risk changes the situation of the buyer, so he or she may change behaviour. The existence of a guarantee may cause a buyer to skimp on full inspection of a vehicle he or she plans to buy. This is equivalent to the 'moral hazard' identified with other forms of insurance (e.g. Stiglitz, 2002, p. 465 etc.) and 'safety nets'. The effectiveness of guarantees, as with other insurance, depends on legislation through formal support-bargaining that provides for enforcement of their terms.

Transactions are dependent on information, and for the most part relevant information is freely available, since the agents involved will have interests in confiding to their counterpart

information necessary to conclusion of a transaction. When there is potential for suppression of relevant information, the agents of money-bargaining systems take steps to obtain it, resorting where necessary to the political support-bargaining system to establish penalties for failure to release relevant information. This system of penalties protects a money-bargaining system more generally from any too prominent prospect that people will not get what they pay for or not be paid appropriately for what they provide.

Where formal support-bargaining systems are not effective in providing general protection against failures to release relevant information, the agents of money-bargaining systems tend to confine their transactions to people of their own social circle, who are likely to be concerned at the loss of support from the social circle if they cheat another member. Within a small social group, the threat of social ostracism can keep people honest in their monetary transactions. On this basis, it is apparent that in a time of serious social fragmentation certain markets, including in particular provision of health insurance and credit, might be extinguished because of the risks associated with them. This dependence of markets on social order has a positive side. Many markets will be created and extended as the social circumstances evolve that reduce the risk of engaging in such markets. Economies as a whole evolve when political and social circumstances evolve to provide security in transactions.

Within the neoclassical theory group, Akerlof's model has been accepted as a satisfactory account of information problems, broadly compatible with continued faith in the neoclassical model. But Akerlof's model introduces, besides product differentiation, notions of expectations, ignorance, uncertainty, time and risk, implying that the model is no longer a rational account of resource allocation. The modification is at best an ill-fitting patch for a model that might be regarded as wholly discredited by such introductions. With the incorporation of ideas that take consumer choice closer to reality, the model loses its coherence and its most seductive quality. Thomas Kuhn in his study of scientific revolutions noted the importance of anomalies in changes of paradigm (Kuhn, 1970, pp. 52-3): 'Discovery commences with the awareness of anomaly, i.e. with the recognition that nature has somehow violated the paradigm induced expectations that govern normal science'. In the present context, disparities of information violate the paradigm induced expectation of perfect information. In *A Theory of Support and Money Bargaining* information is identified as one of the pivotal anomalies of neoclassical theory which can only be accommodated by the new paradigm of support-bargaining and money-bargaining (Spread, 1984, paras. 3.7-93).

### **Screening and signalling**

Stiglitz takes up the issue of asymmetric information within the confines of the neoclassical model, though he recognises the damage it does to the model as all but terminal. He notes that the problem of asymmetric information is overcome if people can be relied upon to tell the truth, though he acknowledges immediately that they are unlikely to do so all the time (Stiglitz, 2002, p. 471): 'Let every person tell his true characteristic. Unfortunately, individuals do not necessarily have the incentive to tell the truth. Talk is cheap. Other methods must be used to convey information credibly'.

Stiglitz (2002, p. 471, 475, etc.) suggests that providers of health and credit services try to obtain the information they need by a process of 'screening'. A person with deficient information may screen aspects of the behaviour of a potential counterpart in a transaction and draw conclusions. For example, a provider of health insurance may note that a potential

client is ready to climb stairs to a fifth floor office, suggesting that the person is in good health, and consequently a good insurance risk (Stiglitz, 2002, p. 472).

'Screening' tries to elicit information, or confirm information, that might not be otherwise available, or might not be accurate. It seems conceived as a means of eliciting relevant, vital or critical information that might be withheld or distorted by a client. The client for health insurance may assure the prospective provider that he is in excellent health, but the provider may nevertheless be reassured if the client ascends five floors without trouble. If, on the other hand, the prospective provider is able to screen the client's intake of medicines from the local pharmacy, he may be able to deduce that the entries on the application form do not fully represent the health situation of the client. The screening process is seen as involving a process of 'self-selection', since by their behaviour clients for insurance, credit, etc. reveal their suitability as clients. It is, however, a matter of unwitting self-selection. The clients are not themselves the selecting agents; they do not consciously self-select. There is an adage to the effect that bank credit policies are equivalent to offering someone an umbrella when it is not raining and denying them an umbrella when it is raining. The need for an umbrella implies at least a threat of rain. An applicant for credit necessarily reveals that he or she is short of funds. Similarly, someone applying for health insurance is likely to have concerns about their health. The contemplation of insurance or credit transactions implies uncertainty and risk.

The 'screening' process depends on situation-related interest and action. Because interests and actions derive from situation, it is possible to infer from people's behaviour what their situation is. If someone ascends to the fifth floor at a run, then their health is likely to be good. They behave in that way, given the desire to move quickly, because their situation permits them to do so. If someone buys a bottle of milk in a shop, it can be inferred that the stock of milk in the fridge at home is regarded as deficient. If someone is consuming large amounts of certain potent medicines from a pharmacy, they are likely to be suffering some acute malady. At a more sophisticated level, if someone opts for a high excess on an insurance policy, it can be inferred that they are not expecting to claim, and are consequently a good insurance risk (Stiglitz, 2002, pp. 468, 472-3). Situation dictates interests and actions, so that it is possible to infer situation from actions.

Michael Spence (1973) earlier introduced the idea of 'signalling'. He provides a model of an employment selection process based on assumptions regarding educational level, productivity, costs of education and the relationships between them, including a feedback loop regarding observed productivity. Candidates for employment acquire varying levels of education which are understood in terms of potential productivity by the employer. Spence investigates the properties of his model with regard to achievement of equilibrium, concluding that there is no determinate equilibrium. He notes that his model of employment signalling assumes relative infrequency of signallers in the market, and consequently the model probably does not have general application. The market for consumer durables, for example, is likely to have a quite different informational structure (Spence, 1973, p. 374).

More simply, 'signalling' in the employment market can be understood as information provided by applicants to potential employers signalling that they have the necessary capacity for the employment. In general, 'signalling' is the provision of information, wittingly or unwittingly, by an informed person to a lesser informed person (cf. Stiglitz, 2002, p. 475). 'Signalling' in this usage involves both the intentional release of information likely to advance the interest of the information holder in the prospective transaction and the unintentional release of information. An executive of a company might, for example, sell shares in his or her



company, implying that his or her own valuation of the shares is less than that of the market. The intentional release of information is part of the bargaining process – it is a function of advertising. Asymmetries giving rise to intentional release are problematic only because they are anomalous to the neoclassical model. The unintentional release of information involves the derivation of information about situation from behaviour, as in the idea of ‘screening’. Information released unintentionally may be damaging to the releaser. According to Stiglitz (2002, p. 475), ‘...the differences between signalling and self-selection screening models lie in the technicalities of game theory, and in particular whether the informed or the uninformed player moves first’. It may not be clear who is moving first, since an informed person may behave in a certain revealing way, without having any idea that he or she is doing so. This may be regarded as the ‘first move’. But the uninformed player who interprets the behaviour may be regarded as moving first as far as the acquisition of information is concerned. Beyond the context of asymmetric information, the idea of money-bargaining suggests a distinction between the information that an agent controls and releases freely because it is in his or her interests to release it, and information that has to be derived from actions or behaviour, because the information is withheld, being inimical to the interests of its holder. This reflects the major difficulty of information in a bargaining system – obtaining information relevant to a transaction that is held by an agent whose interest lies in withholding of the information. There are issues of credence whether information is provided directly or by derivation, but in the latter case there arise also issues of interpretation. Buying milk does not necessarily mean the buyer has a shortage of milk in the fridge. The ideas of ‘signalling’ and ‘screening’ seem designed to keep economic processes as far as possible distinct from any political process. But they do not resolve the problems arising from the withholding of relevant information. Such problems are resolved, in so far as they can be resolved, through support-bargaining.

### **Information, situations and bargaining position**

In defence of the neoclassical model, Stiglitz notes that problems of asymmetric information arise with any importance only in the context of transactions like credit, insurance, employment and used cars where one agent is better informed than the other. He remarks in his 1985 article (1985, p. 30):

Let me emphasise, in concluding this section, that I do not want to over-state my case: there may be situations, particular markets, in which information costs are low, and in which the traditional theory does apply...Our contention is only that there are many situations where information costs are significant, and where the nature of the market equilibrium is, as a result, significantly altered.<sup>3</sup>

In his 2002 article he writes (2002, p. 488):

Despite its deficiencies, the competitive paradigm did provide insights into many economic phenomena. There are some markets in which the issues which we have discussed are not important – the market for wheat or corn – though even there, pervasive government interventions make the reigning competitive paradigm of limited relevance.

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<sup>3</sup> Stiglitz, 1985, p. 30.

In transactions involving the ordinary run of common products – the products more commonly conceived of in the context of neoclassical theory – agents have sufficient information to evaluate their sales and purchases. In markets for products such as wheat or corn, issues of asymmetric information are not important. In these markets buyers and sellers have no need of intimate knowledge of the situations of their counterpart agents to proceed with a transaction. Stiglitz's continued commitment to the neoclassical model seems largely dependent on his view that problems of asymmetric information are confined to relatively few markets with special characteristics.

As was seen above, buyers know their own situations, and can assess the implied interests. They can inspect physical produce on offer and reach confident conclusions as to whether the produce will meet their requirements. For the most part, they do not need to know the situation of the vendor. On their side, vendors will know their own capacities and costs, and their interests will be satisfactorily accommodated by sales at the stipulated prices, without any need to know the particular situations of buyers. Most importantly, the vendors are not acquiring any risk that is contingent on the situation of the counterpart agent. Most purchases of common products do not require that either agent has information about the circumstances of the other. These are transactions concerned largely with information derived from perception. 'What you see is what you get' and the risk of not getting what you want is acceptably low. They involve the common 'things' that are the essential conception of the neoclassical model.

The essential conception includes also an idea of buying and selling in what is, from the lack of any other specification, a rapid 'over the counter' kind of transaction. But buying a large and high value quantity of grain over an extended period involves further considerations. Cutting a few pounds off the price per tonne of wheat can involve a saving of thousands of pounds. In this sort of transaction, knowledge of the seller's situation may make possible these savings, and hence investigation of a seller's situation may be worth the effort. If a buyer of grain could get the vendor to fill in a form about his level of stocks and their condition, and assuming the vendor filled in the form honestly, the buyer might learn that the vendor had large stocks of grain in a deteriorating condition which had to be disposed of rapidly. He would gain vital information, telling him that with a bit of haggling he would be likely to get better terms than those immediately on offer. The buyer's bargaining position depends partly on the situation of the vendor. While the buyer is unlikely to get the seller to fill in such a revelatory form, he may still be able to establish certain features of the vendor's situation that affect his bargaining position. By snooping around the vendor's warehouses and chatting to his workers he might be able to ascertain that the vendor was over-stocked.

The vendor may also gain advantage from knowing the situation of the buyer. If the vendor knows that the buyer has committed to sell on the grain at a certain price, he may be able to push up the price he receives closer to that at which the buyer has agreed to sell on. If the buyer faces a penalty for default over the selling on, the vendor may be able to raise the price by threatening to withhold supply beyond what he knows to be the buyer's deadline. Information is important to bargaining position. In small routine transactions such as those envisaged in the neoclassical model rooting out background information on situations in order to establish bargaining positions will seldom be worthwhile. But for large one-off transactions, or transactions involving long-term commitments, such research may bring important returns.

In confining the idea of asymmetric information to markets where information is directly concerned in the understanding of the 'product' Stiglitz misses many of the broader implications of information for economic processes. In a money-bargaining system, where

selection and valuation are determined by situation, where situation dictates bargaining position, and where terms of exchange depend on bargaining position (Spread, 2008, pp. 93-9), information is of paramount importance.

### **An information interface**

The credit, insurance and employment transactions which are so important to the idea of asymmetric information all involve provision of information, or the 'filling in of forms'. Depending on the information provided in the forms, terms will be settled, or in some cases a transaction may be abandoned. The providers of credit, insurance and employment will all have established certain categories of client situation or candidate situation that they are ready to accept, implying at the same time categories that are unacceptable. If the completed forms show that an applicant falls into an approved category, then a transaction can be pursued. What is to be bought and sold is defined through testimonial information.

With wheat, bicycles and chairs, corn, cars and suitcases, there is something visible and tangible to buy and sell. A buyer can generally obtain the information he or she needs to proceed with a purchase through observation and touch. Many transactions proceed largely on the basis of perceptual information. Because such transactions are so common it becomes possible for many to proceed on the basis of testimonial information alone. Buyers are so familiar with the perceptual information provided by such products that they are ready to proceed with a transaction on the basis of testimonial information alone about them. The internet has made possible a major increase in the volume of business that proceeds on the basis of testimony. The use of photographs as testimonial information arouses memories of prior perceptual experience of similar items.

In political support-bargaining transactions proceed largely on the basis of testimonial information. We learn about the government provisions designed to attract our support from newspapers, radio, television, the internet and other sources. Even when there is something to be observed being done, as for example the construction of a road, we seldom actually observe. Government policies and actions are known through testimony. When we support a government, either informally or through a vote in a formal support-bargaining process, we support on the basis of testimony.

In both support-bargaining and money-bargaining, transactions are formulated and concluded on the basis of information. There lies between the reality of things, actions, events and situations an information interface upon which our attention is focussed and through which we transact our political and monetary business. It cannot be otherwise, since our minds only process information. We have to receive information in order to make decisions; we can only make decisions on information. Thus information is not just incidental to economic processes, nor just a complication. It constitutes the heart of the matter. The same goes for political and social life. The information interface is the immediate object of our attention, and the full understanding of social engagement requires at its centre the understanding of the way we deal with information. In its assumption of perfect information neoclassical economics does not merely side-line 'a problem'; it deprives economics of any chance of properly understanding the way economies function.

The information interface is a creation of the support-bargaining and money-bargaining system. People, whether business people, consumers, employees, politicians or people in a

social context, provide information relative to their situation and for the purpose of advancing their interests. Information can be and invariably is manipulated for the advance of interests. Advertisers extol the virtues of their products; politicians assert the value of their policies and denigrate those of their rivals. Societies and economies evolve through the information interface. Given the great predominance of testimonial information, this means that economies largely evolve on the basis of testimony about what is. The link between that testimony and the reality of things, actions, events and situations is dictated by the dynamics of support-bargaining and money-bargaining.

Advertisers, politicians and everyone else project into the information interface information designed to advance their interests. Information is, then, quite unlike the 'products' that are normally conceived as bought and sold in a 'market'. People are giving away information in order to establish situation concepts that are conducive to their interests, and understandings of products or policies designed to show their fit to the situations of their audience. If people have a certain concept of their situation, they will act by reference to that concept. If people can be persuaded that their social situation requires a certain type of car, they are more likely to buy that car. If people can be persuaded that their carpets may smell of mould, they are more likely to buy carpet cleaners.

People also want information that is relevant to their situation. If they are aware that their carpets are odorous, they are likely to pay for information about how to clean them. If people see that those in a comparable situation to themselves, with comparable budgetary circumstances, are buying certain products, they may pay for information about those products, whether they are cars and yachts, houses and horses, tools and benches or caravans and tents. Information can be bought and sold, but the value of information depends on its relevance to the situations of the buyers. The link of interests to situation means that all transactions are conducted in terms of information regarding situation and how it is to be accommodated in each specific transaction. Hence the extent and importance of the information interface.

In support-bargaining these aspects of information are even more important than in economic exchanges, since the policies and provisions of political support-bargaining and the theories and hypotheses of intellectual support-bargaining are almost entirely constituted from information. People buy newspapers and magazines that accord best with their understanding of political situations. Academics read journals that are relevant to the paradigms and theory groups in which they work. Information is valued for its relevance to interests, and interests are derived from situations. The information interface spreads right across societies and economies.

While for the most part the information acquired and used is testimonial information, in money-bargaining the incidence of perceptual information arising from the concern with material things is more apparent. The prominence of material things and the assurance associated with perception led neoclassical economists, pursuing the status of physicists, to view as acceptable an assumption of perfect information. Stiglitz's (2002) most prominent exemplars of asymmetric information are, by contrast, 'products' traded in money-bargaining systems which are nevertheless largely defined in terms of testimonial information. Vital parts of this testimonial information are held by those with a potential interest in not disclosing it.

Coming from the idea of asymmetric information to the concept of transactions concluded on the basis of situation-related interests and the distinction between perceptual and testimonial

information involves some fairly intricate argument. But approached directly with the idea of an information interface the role of information is perhaps more readily understood. Transactions go ahead when the information interface implies satisfactory accommodation of the situations and capacities of buyers and sellers, whether it is comprised of mainly perceptual information, as in the case of chairs and bicycles, or whether it involves largely testimonial information, as in the case of health insurance, credit and employment. If the information interface is sufficiently complete and implies sufficient accommodation, money is passed from buyer to seller, either in perceptible form or in the form of testimony. Support moves on analogous considerations.

The information interface is generated by the pursuit of interest in processes of support-bargaining and money-bargaining. This does not, however, imply that it is created without regard for realism and truth. People have obvious interests in realism and truth. If the car they have bought is a 'lemon', they want redress. In the absence of some enforceable legislation that gives them redress, they may be inclined to avenge themselves directly on the seller. If politicians are revealed as liars, they may lose all the support they are trying to assemble. The support convention may break down. Order in society is likely to rank highly in people's ordering of interests, and an orderly society needs an underlying commitment to realism. Parents invariably instruct their children to 'tell the truth'. There is a large faction committed to the revelation of truth, incorporating not just the determined and instinctive truth-seekers, but virtually everyone, on the basis that some part of everyone would prefer the truth. There are partisan groups or factions that pursue interests related to their particular situations, but there is also a faction that pursues the wider and more fundamental interest in the human condition. The pursuit is complicated by the existence between truth and falsehood of a large hinterland of selection, omission and distortion. While the reality behind the information interface is what it is, the information interface is subject to manipulation. A washing machine remains the washing machine that it is, but information about the washing machine can be manipulated to make it seem attractive or unattractive, functional or dysfunctional. Information can be manipulated to advance interests without actually being false, or without actually being demonstrably false. Advantageous information can be selected for promulgation in preference to disadvantageous information. Neoclassical theorists select aspects of human behaviour that make possible the construction of mathematical models of economic exchange. Akerlof (1970) selects assumptions regarding the buying and selling of cars that lead to the conclusion he desires. The information interface comprises information selected by reference to the interests of its promulgators. If it contains extensive information that many wish was not there, it is because it has been selected by their counterparts or opponents for their advantage in the bargaining process. The pursuit of factional interest may go beyond mere distortion to the propagation of outright falsehoods. While the propagation of falsehoods can be counter-productive, it can on occasions be advantageous. People may lie if they think they will 'get away with it'.

The information interface comprises elements of truth and realism but perhaps more prominently it comprises information manipulated by factional interests for their own purposes. The existence of many factional interests ensures that the information interface is of great variety. It is created through the process of support-bargaining and money-bargaining, but constitutes also the subject-matter of support-bargaining and money-bargaining. As part of the creation process, societies make considerable efforts to purge the interface of outright falsehood and limit the extent of manipulation. Through support-bargaining extensive legislation and social custom has been established that condemns and punishes misrepresentation and the propagation of falsehoods. Only with the information

interface policed in this way has it been possible to evolve support-bargaining and money-bargaining systems to their full potential.

### **Changing the paradigm**

Perfect information is essential to the mathematics of the neoclassical paradigm. If time has to be spent searching for essential information uncertainties are introduced that cannot be dealt with satisfactorily in mathematical terms. The idea of an optimal allocation of resources becomes contingent on outcomes of searches that are themselves absorptive of resources. A decision to search depends on the costs of search, and the costs of search depend on search – an infinite regression arises. Thus Stiglitz (1985, p. 23): ‘...for how is the individual to resolve the infinite regress of whether it is worthwhile to obtain information concerning whether it is worthwhile to obtain information...’ The model is irretrievably lost. Stiglitz dismisses also the earlier salvation of the neoclassical theory group in the argument that even if information is not absolutely perfect the model still fulfills much the same functions as with perfect information (Stiglitz, 2000, pp. 1442-44, 1470; 2002, pp. 461, 463, 467, 475, 477). He writes (Stiglitz, 1985, p. 26),

With perfect information and no non-convexities, the postulates underlying perfect competition have a certain degree of plausibility, or should I say, at least internal consistency. The competitive paradigm is an artfully constructed structure: when one of the central pieces (the assumption of perfect information) is removed, the structure collapses.

The neoclassical model is highly sensitive to imperfections of information. While Stiglitz acknowledges that the neoclassical paradigm is invalidated by recognition of the imperfections of information, he chooses not to abandon it (Stiglitz, 2002, p. 486):

It is not easy to change views of the world, and it seemed to me the most effective way of attacking the paradigm was to keep within the standard framework as much as possible. I only varied one assumption – the assumption concerning perfect information – and in ways which seemed to me highly plausible.

Stiglitz (2002) still works within the neoclassical paradigm, referring frequently to Pareto efficient equilibrium as the criterion for optimal allocation of resources and hence the criterion for satisfactory outcomes. There is, of course, practical wisdom in staying with the mainstream theory group. Dissenters are often disappointed. Theoretical ‘whistle-blowers’ are likely to suffer the same uncomfortable fate as institutional whistle-blowers – the two processes are much the same when theory is heavily institutionalised, as is economic theory.<sup>4</sup> As noted in the previous article, many rewarding careers have been built on modifications to neoclassical theory (Spread, 2012, p. 49). Spence, Akerlof and Stiglitz shared the Nobel Memorial Prize for Economics in 2001 for their work on asymmetric information. Stiglitz’s career shows he is not averse to controversy. Perhaps some of that disposition might usefully have been spent in furthering the shift to a new paradigm, however unreceptive the neoclassical theory group. The choice exemplifies the conflicting impulses to pursuit of truth and cultivation of the support more readily available from an existing theory group in an intellectual support-bargaining process. The mainstream theory group opts to sustain support

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<sup>4</sup> On the institutionalisation of theory, see Spread, 2008, Chapter 12: Institutionalisation of Theory Making.



for its model, suspending the pursuit of a truth that seems intolerably elusive. There are insufficient numbers of authoritative people insisting on the pursuit of truth to make it worthwhile for Stiglitz to join fully in the pursuit. But if the mainstream theory group is recognisably wrong, it has much to answer for in propagating falsehoods to the societies that depend on academia for expert guidance regarding their social and economic condition. It pollutes the information interface. A recent article in the *Cambridge Journal of Economics* blows the whistle loudly on the mainstream theory group (Freeman, Chick, Kayatekin, 2014, p. 524):

Nowadays it is almost beyond dispute that economics has failed both itself and its public in a systematic manner that goes beyond what is reasonable by the standards of either public service and accountability or scientific accuracy and scholarship.

The sense of lost opportunity is the sharper because Stiglitz can see the basis of an alternative and more realistic theory. The truth is perhaps not wholly elusive. In a section headed 'Beyond Information Economics' he writes (Stiglitz, 2002, pp. 486-7):

Finally, I have become convinced that the dynamics of change may not be well described by equilibrium models that have long been at the center of economic analysis...Dynamics may be better described by evolutionary processes and models, than by equilibrium processes. And while it may be difficult to describe fully these evolutionary processes, this much is already clear: there is no reason to believe that they are, in any general sense, 'optimal'.

There is no equilibrium and no Pareto optimal state. Economies evolve, and economic theory has to incorporate an evolutionary process. The idea of support-bargaining and money-bargaining is inherently evolutionary, in that decisions are situation-related, so that an economy moves from situation to situation.<sup>5</sup> Economic theory has to be reconstructed as evolutionary economic theory.

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# Productivity decline in the Arab world<sup>1</sup>

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## Abstract

The International Labour Organisation (ILO) often publishes labour productivity figures for the Arab World (AW) in which the rates of growth are negative. Insofar as it could be mimicked by output per worker, Arab labour productivity growth or the kernel of wealth creation has experienced negative growth rates. Productivity is a subcomponent of the prevailing decline in the investment rate, in particular, investment in plant and equipment. It is also a manifestation of the decline in the share of modern industry. The mainstream literature attributes the decline to the few remaining regulatory constraints on the free market. But the Arab market is pretty much freed, and in countries not experiencing wars, the real poverty and unemployment rates are quite high, save the Gulf States. In this essay, I argue that the reasons for this poor productivity growth cannot be found in reified concepts such as a not-so-free interest or exchange rate, but in the ruling classes' proclivity for openness policies that were devised to expand their wealth. After losing several wars to US-led imperialism and its allies, the Arab class formation underwent a radical disarticulation and the imperialistically sponsored new ruling class acceded to terms of surrender that included the neoliberal policy package. In states lacking sovereignty, neoliberal policies are a form of imperial tribute. The AW's capitulation or subjection to overwhelming US-led military superiority and assaults were not a single time event; the AW is integrated into the global economy via the war and oil channels. The reproduction of war in the AW is a central tributary of global accumulation. The losses to Arab formations, forced it to progressively relinquish autonomy over policy to the World Bank and the International Monetary Fund (WB-IMF). Free market packages have ensured resource transfers abroad. These value transfers further undercut the living security of working classes and their national security simultaneously. The so-called rigidity of the labour market, or what little remained of that in the public sector given that much of the population survives at mere subsistence levels, has had a positive impact on welfare. A gain in productivity caused by labour-shedding measures from public employment could have had a considerable negative impact on unemployment. Public sector employment has functioned as an economic stabiliser and contributed to averting a further decline in the subsistence level.

## I. Introduction

In the Arab World (hereinafter AW), the average growth rate of the labour force since 1980 has surpassed the growth rate of decent job creation. Official unemployment rates have entered double digit figures and post Arab-Spring conditions suggest further deterioration in the employment situation. The growth trends indicate that future growth levels are likely to be lower, in view of increasing regional wars, lower and poorer quality investment rates, and continued reliance on neoliberal policies. The likelihood that the poor macroeconomic performance will leave behind an increasing number of job seekers without jobs as happened prior to the Arab Spring is becoming inevitable.<sup>2</sup> To date, the mainstream literature has not questioned why the build-up of imbalances between savings and investment, hollow growth

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<sup>1</sup> This essay is an expansion of the lecture given at the AFWAN conference, University of Malaya, Kuala Lumpur, 18 November 2013.

<sup>2</sup> Throughout this essay, I will rely mostly on electronically generated data from the World Development Indicators (WDI) of the World Bank  
<http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators>

and low employment creation, and declining industrial capacity – productivity and wealth have persisted despite nearly thirty years of Arab adherence to the Washington Consensus.

Contrary to the proposition of the mainstream that openness sharpens productivity and increases wages, the opposite has happened. Over the last three decades, labour demand grew at a much lesser rate than labour force growth, whereas in the sixties and seventies (the years of state intervention and dirigisme) job growth nearly tallied with the rate of labour supply. Moreover, as of the early 1980s there have been no significant shifts in the sectoral or firm size composition of the AW, which would have allowed for more elastic labour demand or greater labour/capital substitutability. It was not bigger firms with better technology that were leading growth by replacing labour with more efficient machines; it was free market conditions that only war-defeated societies would have accepted that demobilised labour. During the period 1980-2000, economic growth rates remained torpid, on average between two and three percentage points (WDI, 1980 - 2000). Investment rates (public and private), share of the government sector, exports of manufactured commodities, and many other variables with an impact on labour demand have remained unchanged or have worsened. Oil and non-oil economies disengaged national resources and, in particular, the labour resource had become most underutilised. Policies that have reinforced the free market mechanism in resource allocation were inappropriate for Arab development, especially as political uncertainties, combined with uncertain oil prices, have prevailed.

In retrospect, with the rate of expansion in the private sector incapable of hiring the redundant labour force, the so-called inefficient public sector had proved itself socially efficient because it continued to act as a welfare cushion for the broader population. Efficiency criteria are conventions that reflect the value systems of different classes in society. Had the public sector share shrunk as recommended by the World Bank, the social disaster brewing before the Arab uprising could have been even bigger. As of 2000 or the beginning of the high oil price-jobless growth holiday, the labour market reforms (dubbed flexibilisation) under open capital and trade accounts drained human resources and shifted more labour into informal poverty-wage employment. One ought to note that in poorer developing countries with weak social infrastructures, the concept of unemployment *per se* is meaningless. People unable to find decent jobs and lacking wealth will invariably resort to poverty-wage jobs in the informal sector. Informal sector employment is low productivity employment. Productivity is the source of wealth creation. It leads the growth in physical capital assets, eggs on higher technology, and leads the rise in wages. On average, Arab productivity growth has been negative for two decades prior to the Arab Spring. In this essay, I examine the issue of poor productivity growth, using analytical and empirical techniques in order to identify some of the reasons behind this recurring phenomenon.

**A note about the data:** I will begin by cautioning that measurements of productivity are illusive and what is being measured allows one to trace development in output per worker over time, but not an assessment of productivity at any one point in time. Productivity assessments cannot be precise because it is impossible to homogenise the quality of capital goods employed in production. More accurate data on productivity would generally require labour-hour data and machine operation rates. These data are unavailable in the AW, and in this chapter I will construct approximations of output per worker as reference points for comparative purposes along a trend only. In general, labour market data about the AW is scanty and of poor quality. For instance, official unemployment in Syria would fall from 15 to 2 percent between 1997 and 2000, then would rise to 12 percent in 2001, and fall to 8 percent in 2005. The reason for the decline in unemployment was attributed to counting seasonal

work in olive picking, which was the advice provided to the Syrian government by the World Bank. Absurdly, when the olive picking season came to an end, unemployment rates did not rise and stayed at around 9 percent. In the case of Tunisia, it would fall from around 16 percent in early 2000 to 12 percent in mid-2000. In the case of Algeria, it falls from around 30 percent in early 2000 to 10 percent by late 2000. In the case of Morocco, it would fall from around 20 percent in late 1999 to around 10 percent by 2004. The reason for this decline in unemployment had involved changes in employment measures as the Statistics Bureaus included informal employment in the measurement of employment (ILO, 2012). Had there been such improvements in unemployment in such short periods of time, the AW could have been an unsurpassable model of sound development. In addition to manoeuvring measurements, Arab countries struck by war report little data (Libya, Sudan, Somalia, Lebanon, Syria, Iraq and Yemen). Iraq withdrew its past data from the World Bank database and recently reports very spotty data. Lebanon has practically no statistical office; a private bank actually estimates national data.

Around 50 percent of the Arab population survive on less than US\$2 a day and spend more than half their income on basic foods (Taqrir, 2005). Hence, a real unemployment figure counting people engaged in poverty employment as unemployed would necessarily be around 50 percent (Taqrir, 2005). In any case, the one or two dollars are irrelevant benchmarks in an Arab context. The Arab countries are the most food-dependent countries globally (FAO, 2013). The two-dollar threshold in countries highly dependent on food imports misinforms about poverty conditions (Reddy, 2005). In India, where food is mostly home-produced for instance, a dollar buys much more than in Lebanon where much of the food basket is imported. When food prices are freed from international price movement and are determined by production within the national boundaries, they tend to return more value for price. In Iraq, Lebanon, and Libya and much of the AW, more than half of each dollar spent would be paying for imported foods whose prices are determined internationally. Wither the differences in purchasing power parity as national currencies buy at home what the dollar buys abroad.

Yet, rising poverty rates have often been concealed. A cursory look at the figures before the uprisings would imply that absolute poverty rates – those below the one-dollar-per-day mark – were around 5 percent (Taqrir, 2005). These are low by global standards. Following the uprising, these figures were revised upward considerably (Taqrir, 2012).

In spite of higher oil-price driven growth as of early 2000, Arab poverty worsened as income disparities grew. It may be relevant at this juncture to dispel the image of 'rich Arabs' and to state things as they are: within the strict terms of economic wealth there are rich individuals in the AW, but the majority of working Arabs are pauperised. Excluding the Gulf, the majority of Arab working people, around 350 million, earn about 0.3 percent of the world income (World Bank, 2012). According to the Texas Income Inequality Database, the AW exhibits one of the highest income inequality rates of all regions (Galbraith, 2014). The figures on income distribution from the World Bank Indicators database (WDI), where they exist, are misleading. Egypt, as per its Gini in the WDI, for instance, is as egalitarian as Austria and holds its rank steady since 1980; in the Texas Income Inequality Database, the income distribution data shows Egypt to be highly unequal and its inequality growing to the highest rank just prior to the Arab Spring (Galbraith, 2014). Despite the formality of change through bourgeois democratic processes, as in different persons elected to executive office after the Arab Spring, ruling classes stayed unchanged. The divide between Arab internationally integrated capital, and the working classes that are supported by national means gaped wide. In the

debate on the current development strategy, there is not an insinuation that the mainstream went wrong in the past. It is said that the outcome of neoliberal policy backfired because of poor governance or corruption. Corruption is used as a moral category particular to 'culturally backward Arabs' and not as the channelling of resources to waste or private use by the classes that freed capital accounts. Yet, the obvious question would still be, who would have believed that Arab dictators would have governed in a good way? The good governance discourse was the World Bank's way of promoting regimes that obeyed US-imperialist diktat by flaunting the possibility that they were reformable.

## II. Macro and output per worker

During the decade 2000 – 2010, output per worker in the AW exhibited declining growth at -0.7 percent. Between 1980 and 2000, output per worker growth was on average negative at -1.2 percent. The fact that output per worker in the years 2000 – 2010 is better than the previous two decades 1980 – 2000, should not represent an anomaly since output per worker is a subset of output per capita, and economic growth in the decade of 2000 – 2010 was higher and was driven by higher oil prices and revenues. Oil revenues may raise output without influencing productivity. For instance, Qatar because of high oil and gas revenues during the 2000-2010 decade exhibits a nonsensically high yearly averages of growth rate in productivity – 15 percent in 2008 (ILO, 2012). One must caveat against the inadequacy of these productivity measures in oil producing countries or attempt to deduct the oil revenue impact on value added income to obtain, still, a rough estimate of productivity over time.

**Table 1.** Labour productivity growth in selected Arab countries, (percentage).

<u>Averages</u>	<u>97-95</u>	<u>95-08</u>	<u>00-08</u>	<u>2007</u>	<u>2008</u>
Bahrain	0.2	2.9	3.7	6.4	4.7
Iraq	-17.5	3.3	2.5	-1.8	6.2
Jordan	-5.5	1.4	2.3	2.3	1.7
Kuwait	-2.5	0.8	1.9	4.4	2.6
Qatar	-1.2	6.9	5.7	13.6	15.1
Syria	1.4	-1.7	-0.7	-0.2	0.7
Yemen	-0.5	0.3	-0.3	-0.9	-0.4

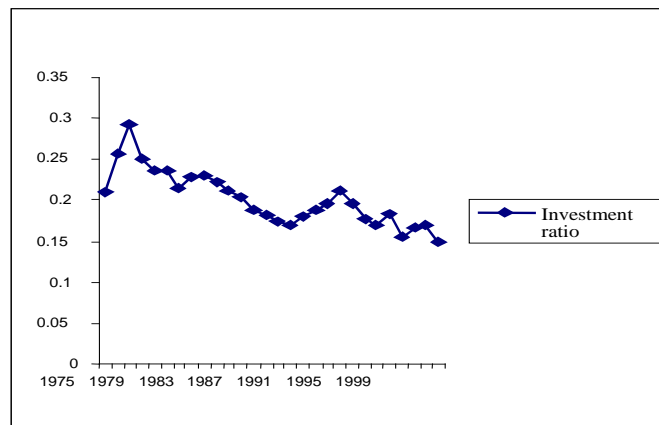
Source: International Labour Organization, *Key Indicators of the Labour Market*, various years.

During the period 1980 – 2000, a period of depressive growth, the region experienced no significant expansion in output due to improvements in technology or total factor productivity (Sala-i-martin, 2005). The rate of retained national savings (those remaining within Arab countries and not saved abroad) has declined and the investment rate has dipped. Low prospects of returns weakened the investment rate at a faster rate than its saving counterpart, with the former rate hitting a plateau of 18 percent in 2000, and then rising to slightly over 20 percent in late 2010 (WDI, various years).



From 1980 to 2007, the contribution of the systemic components to economic growth (growth from just expanding capital and labour, not oil revenues) was insignificant (UN, 2006). The average Arab region growth rate was one percentage point lower than the growth rate in the labour force (WDI, various years). In relation to the natural growth rate (the natural rate is the rate of growth in the labour force plus the rate of growth of productivity), the long term average growth rate (1980 – 2010) hovered at a little more than one percentage point below the natural rate. Although for three decades prior to the uprising total Arab savings (including Gulf States) remained higher than investment, Arab moneyed assets were still not employed to mobilise idle resources. The combination of unemployment and low productivity in the informal sector employment, in addition to weak labour political representation, lowered wages. Foremost, the falling investment rate (See Figure 1), in open trade and capital account regimes, created a downward development spiral that dragged down with it the whole macro environment.

**Figure I.** Investment rate in the Arab world, 1975-2009



Source: World Bank World Development Indicators, various years.

In contrast to the grim picture from 1980 onwards, for the two decades of the sixties and seventies, economic and employment growth rates were higher (WDI, various years). One may note that since the fifties, the average annual population growth rate was nearly as high as it was at the peak of the demographic transition in the nineties – around 2.5 percent. The whole demographic transition argument, which discovers suddenly there are too many people around of which we were not aware – is put forth to obscure the fact that it is the rate of growth in job creation that fell since 1980 as a result of freer market policies. It is not Arab fecundity or any other cultural attribute that created the social problem; it is the imperialist assault that sapped resources otherwise destined for civilian use, weakened the socialist ideological zeal of the working class and pushed into the forefront a social class committed to the free market agenda. The wars were won by military means, but their implications were the ideological defeat of the working class and the victory of comprador capital. Few social scientists are freed from the payroll of capital to state this blatant fact. The decent-job creation drop as of 1980 had created the backlog of unemployed or poverty employed people around today. The regulated national economies in the immediate post-independence period (sixties and seventies) performed better on all counts and nearly matched the rate of job creation with the rate of labour force growth. Unemployment was minimal and much of the migration to the urban centres was met with decent jobs.

As capital and trade accounts were freed prematurely, the share of the manufacturing sector declined steadily since 1980 (UNIDO, 2014). The AW exports significant quantities of raw material (on average around 40 percent of GDP), however, its competitiveness in manufactured exports by late 2010 ranked below the average for Least Developed Countries (World Bank, 2011). Meanwhile, the employment shares of the informal poverty and subsistence sectors rose in tandem with industrial decline. Persistent cyclical unemployment allowed the absolute numbers of the unemployed relative to existing capacity to become huge enough such that, without radical changes to wealth redistribution, land reform, and labour policies, it would be literally impossible to provide the excess labour force with decent jobs. The point here is that Keynesian full employment policies are really un-implementable. If one considers that people always need to work, then the AW is already at full employment, given the high rates of poverty employment. And, to make matters worse, if let us say there is a possibility of boosting labour demand through expansionary macro policies, then one must also consider that this is a war region in which development and *doux-commerce* are anathema to imperialist objectives. It is unlikely that these phenomena can be assumed away, and still arrive at reasonable results.

The downward pressure on wages from unemployment was systemic throughout the past three decades. While real wages declined, the dependency rate – the number of bread winners relative to the population – rose (WDI, various years). Although labour share was falling for nearly everyone across the globe, save China and other smaller cases (KILM, 2013), in an Arab labour market, the labour share had come to form less than 30 percent of total income (it is around 65 percent in advanced economies (Guerriero, 2012; KILM, various years). Low wage employment and a small labour share abrogate the impetus of effective demand as a policy option.

A freer market enslaved much of labour in conditions of poverty, but freed the ruling class to enjoy wealth denominated in dollars. The regimentation of the labour process, union busting, and outright repression pacified labour as its share out of national income dropped. Capital accumulation fell out of synchronisation with the qualities of the skilled labour input. The region educated a class of highly-skilled workers that seldom fitted what was left of the local industrial network. The AW also continued to host a diverse expatriate population of unskilled and semi-skilled workers employed for relatively low remuneration in dreadful conditions. This unemployment trap added to the woes of an already anaemic job creation process because:

- a) it exported labour upon which much social value has been expended, and from which the remittances fail to redress the loss in value, and;
- b) the pressure of the low wages of imported labour lowers the national wage levels and reduces the nationally recirculated capital by the accelerator computed amount of the leakage.

As industry ebbed, a merchant class replaced industrial entrepreneurs and permitted greater dependency on foreign labour at the expense of the domestic or regional demand component. Merchants-proper need not invest in up-skilling national labour for they do not depend on national production. Where public employment was expanding, the ruling minority maintained support for its rule as numerous public institutions allocated jobs with a view to promoting patronage and political stabilisation. In the less oil-endowed Arab economies, austerity measures constraining the labour market increase the push factor on all sorts of labour resulting in uprooting from the land or emigration – skilled as well as unskilled labour.

The AW is a heterogeneous mix. The rich Gulf economies represent around 5 percent of the total Arab population (citizens only) but earn 1.6 percent of world income (WDI, various years). In less oil-endowed economies, some 350 million people earn 0.9 percent of world income of which the labour share is estimated at 0.3 percent of world income (WDI, various years). The majority of Arab countries (the less oil-rich) incur internal and external deficits while the oil economies acquire a surplus in the external sector. Unbalanced tax structures targeting consumption instead of capital gains and significant resource leakages help settle deficits in private spending, while government accounts tend to remain highly exposed, especially, to oil price variations. Even Saudi Arabia by 2000 (after 20 years of low growth beginning in 1980) became a net internal debtor as a result of falling oil prices. It only acquired a surplus in government accounts when oil prices began to rise in 2002. The retained savings rate stayed unduly low as nearly a quarter of its GDP was caught in capital flight (UN, 2008). Oil economies (mainly Saudi Arabia) remain vulnerable to low oil prices because the profits of the privately owned banking sector would have to rise by fabricating unnecessary state bond issuance as speculative earnings from the private sector dies down. When the banking sector ceases financing speculation of over-valued assets and as the downturn begins, bankers will turn to the state for increasing banking profits. After all, there are no conflict of interest clauses in Saudi Arabia or any Arab state for that matter.

The increasing rate of tensions and wars in and around the Arab region creates the uncertainties that drive away investment. The repeating cycle of poor growth cum poor investment is not redeemed by windfall oil revenues, because wars sap the capacity of Arab economies to underwrite the long term security necessary for developmental growth. After too many attempts to boost growth by diversification in the Gulf, oil is still the principal driver of these economies. The merchant class also makes sure that laws enacted for hiring nationals at higher wages are never binding because their higher costs cuts into profits. In the less-oil endowed economies, hopes to modernise industry by national means are systematically dashed by conditions of smaller markets and political instability; the Arab economies remain centred on primary commodity exports. The objectives of the merchant class and those of imperialism cross paths in maintaining conditions of backwardness and de-industrialisation.

Moreover, deficit-building in an open trade and financial account context builds a drag on fiscal and monetary policies simultaneously, because the government finances imports by restricting investment in the social structures to reduce its deficits. This weakness is not inherent to Arab states. Arab states were auto-financing their expansion prior to the eighties and incurred little foreign debts under regulated trade and capital accounts. The ruling merchant class, seeking greater dollar markets for higher and more secure returns, imposes the financial weakness upon the state: first it finances itself through the dollar-peg blighting monetary policy, national currency and reserves, and; secondly, by severing the link between social investment and monetary gains over the long term. The whole relationship of pegged exchange rates with fiscal austerity annuls the effectiveness of macro policies altogether, dollarizes the national money markets, uses surpluses in primary state budgets to pay for debts, and restrict national demand.

These austerity measures that came to roost in Europe were already at play in much of the developing world. One can easily pinpoint the economic transmission mechanisms that lead to fiscal and monetary flight. Yet, the point could be made differently from a political economic perspective: because national and joint Arab security is exposed as a result of so many losses in wars implicating the livelihood of the working population and restricting the development of resisting working class ideology, Arab sovereignty and, hence, policy

autonomy are lost. Since 1980, monetary and fiscal policies targeted the provision of money and tax cuts to the rising merchant class, the staunch and albeit subordinate ally of US-led international capital.

The macroeconomic environment represents an interrelated whole with capital accumulation and productivity being at the heart of the health of the social formation. As productivity failed (the objective condition for higher wages), wages fell (as a result of loss of labour's political force, or the subjective component behind wage formation), the share of labour plummeted and, the only social variable that rose was poverty. There was slowing demand and supply (when falling together they degrade capacity) with inflationary pressures acting as indirect taxes on working people. Waning capacity, to be sure, is a process of reverse development. Although the Islamic cultural value of *takaful*<sup>3</sup>, caring for others, may temporarily offset some of the welfare consequences of these poor cycles; *takaful* remains a non-rights based welfare approach that cannot redress the plummeting labour share.

### III. A mainstream view of productivity

Productivity in the AW faces similar difficulties to those encountered by other developing regions, principally, the nationalisation of scientific knowledge and its internalisation in technology upgrading the value content of nationally produced commodities. There are very few things remaining national in the AW and the supply chain is quite shallow. R&D investment ranks lowest globally of all regions (UNDP, 2005). The few universities in Iraq and Syria that arabised scientific output were nearly demolished in wars. American private universities catering for the rich spring up as ornaments of wealth rather than knowledge posts. Arabic, which was *lingua franca* of science for nearly eight centuries, became associated with backwardness. As English became the language of the ruling class, the acute divisions in class character acquired yet another symbolic dimension in the prohibition of access to knowledge to the working class by the language barrier.

There are three points characterising Arab productivity:

- 1) There were no internally generated technological improvements that enhanced the scale of economies. A culture for industry and higher share of modern industry exhibiting higher output per unit of input at lower cost did not develop, and most economies remained locked in low-tech type activity.
- 2) Cheaply remunerated foreign labour and a schism between local knowledge production and industry discouraged upgrading the technical capacity of the national capital stock.
- 3) Where the labour input and physical capital rose in stock, they were couched in low capital-output ratio or short-term gestating capital. These are the types of short-term investment that avoid risk.

The mainstream explanation purports that an additional increase in one input is costly as it requires additional increases in other inputs, as well as adjustment costs that are comparatively high and capital skill complementarities may be lacking. Although these reified

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<sup>3</sup> *Takaful* is a cultural value synonymous with charity and a practice credited with the alleviation of some extreme forms of poverty. However, more than half of the population in the Arab world lives on less than US\$2 per day. When one considers the openness of the Arab economies and the high rates of food dependency, it is worthwhile to note that, even at this level, the majority of Arabs live in conditions of appalling poverty.

(thingified as per the usage of Lukács<sup>4</sup>) reasons apply across the spectrum of all industries by one degree or another; they cannot be found in the AW once the broader context is read. Freer than usual trade policies supplanted national industry. There is an order to building complementarities that was disrupted. Labour and capital are disarticulated not because of lack of complementarities or rising costs, but because of social disarticulation: the ruling class is part of global capital and not part of the national structure.

Another of the mainstream's explanations of why market efficiency is hampered posits that labour market regulations are obstructive, distorting price incentives and inhibiting maximum use of skills. The AW, excluding the Gulf citizenry, exhibits high rates of poverty, huge informal sectors (sometimes estimated as employing half of the labour force), an absence of laws protecting the rights of working classes (Arab labour unions enjoy the least rights globally [ITUC, 2007]), and patronage employment in the public sector buttressing the security apparatus of the ruling class. The fall in real wages was spearheaded by the compression of public sector wages. Where war is not ravaging the population, laws propped up by convenience make flexible any labour market rigidities. The reason why the World Bank asks for flexibility in a poverty-stricken labour market is to discipline labour and reduce any prospects of sovereignty based on working class participation. Productivity growth in the AW is not held back by labour market rigidities, the regulatory constraints on the private sector, or the low level of development in financial markets. It is held back because for US-imperialism the AW is a source of oil, cheap labour and wars. The policy of incapacitating the AW encompasses military as well as aspects of social development that may unite and empower working people. The ideological bombardment of working people with religious obscurantism splintering the working class is paid for by the supposedly sovereign oil funds that instead of breeding prosperity, breed reverse development. The rise of many religious and ethnic identities above class politics, this receding of the ideas that working people need to channel more resources/value to themselves against ideas based on sectional gains for an identity group that bring down labour's political power and share together, is the real victory of capital. The US-led imperialist assault on the AW, its hegemony over oil as the commodity support of the dollar, aims to confiscate not only the AW, but also much of the world wealth by laying control to this strategic part of the globe

#### **IV. Declining productivity**

The trends of components of output per capita decomposed into GDP over employment, employment over labour force, and labour force over population reveals that the labour shedding measures arising from enforced labour market flexibilisation as of 2000, have risen slightly. As of 2000, more working people were forced into unemployment or poverty employment in the informal sector. Tables 2 and 3 provide the results of the application of this decomposition for two periods 1980 – 2000 and 2000 – 2010.

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<sup>4</sup> See Section I "Reification and the Consciousness of the Proletariat" in Georg Lukács' *History & Class Consciousness*, Merlin Press, 1967.

**Table 2.** Output decomposition of growth rates, (percentage), 1980-2000

<u>Output components</u>	<u>Result</u>
GDP over employment	-1.50
Employment over labour force	-1.80
Labour force over population	1.10
GDP over population	-1.10

Source; WDI, various years.

**Table 3:** Output decomposition of growth rates, (percentage), 2000-2010

<u>Output components</u>	<u>Result</u>
GDP over employment	-.70
Employment over labour force	.50
Labour force over population	1.1
GDP over population	.37

Source: WDI, various years.

In both periods, the decomposition unfolds on the usual trends, namely, declining productivity. The ratios are more or less typical of all Arab countries, save the small oil states whose output per worker appears inflated as a result of oil revenues, although they share a shallow supply chain with little endogenous technology. The decline in the employment-to-labour force ratio between 1980 and 2000 implies rising unemployment and represents the most pressing concern. Much hubris has been made about progress in higher rates of participation of women in the labour force prior to the uprising, but as the real declining share of employment to labour force indicates (again here I am counting poverty employment as unemployment), altogether unemployment rose. This Arab phenomenon differs from the high demand for labour in the West that required the engagement of women in employment after the Second Great War. In the AW, investments and output fell and so did demand for labour altogether (men and women). When the World Bank trumpeted the advancement in the rate of participation of women to embellish the image of reactionary Arab regimes, it did not mention that its openness policies brought down labour demand and forced people into poverty employment, both men and women. More educated women joined the ranks of their male counterparts as politically emasculated subjects of the reigning regimes. Patronage employment is more about co-opting people's conscience and generating consent rather than engaging their productive talents.

The trend in the ratio of employment to labour force turns positive as of 2000. The International Labour Organisation (ILO) condoned the Arab ruling classes' way of counting people employed in poverty informal sectors as employed (ILO, 2012). This counting method of inflating fallaciously the ranks of the employed counters the ILO edict of decent employment (employment with a reasonable income allowing minimum subsistence) and contradicts basic human rights tenets to meaningful human existence that the UN human



rights bill enshrines as international law. In view of the fact that gradually after openness the population became heavily skewed towards the younger group of new entrants into the labour force, the significantly positive labour force over population ratio comes as little surprise. Arab countries that regarded the economy as part of national security in the sixties and seventies erected protective measures to recirculate resources nationally, calibrating the rate of savings with investment and of job creation to that of population growth. State sponsored full employment policies and nationally underwritten expansion of the money supply mobilised resources under regulated capital accounts. The shift to neoliberalism in the eighties arose not as a result of failing import substitution policies, but as an immediate response to Arab war losses and the desire of the comprador ruling classes to expand its wealth in Western financial circles. The material pull of class is always stronger than second-hand sentimental nationalist affinity.

By the year 2000, a greater share of the employed was lodged in low productivity service or informal sector jobs. Most Arab countries are oil exporters and as oil prices octupled between 2002 and 2014, the windfall component lifted output per worker artificially. When oil revenues are subtracted from output beginning 2000, the results show output per capita and output per worker to be significantly negative and far worse than the previous period of 1980-2000. Although it is difficult to dissociate oil from the economy, one could still posit that in relation to rising oil revenues, privatisation policies and the complacency attendant upon easy foreign exchange, lower the share of the productive economy. On the surface of things, together outcomes act as the mirror image of the aid syndrome where flows raise consumption and lower savings; however, it is not these thingified relations that generate the faulty process but the real human relation or the merchant class. The damage sustained by eliminating emphasis on modernising industry is a calculated policy that lowers national defences. This is after all a politically over-determined region. As neoliberalism metastasised under privately controlled institutions, increasing oil revenues seeped up towards the merchant classes and to their partners in the international financial circles.

The mainstream emphasis on rising productivity in certain micro success stories as in Kinda (2008),<sup>5</sup> obscures the macro failures of deregulation under the iron grip of an imperialistically co-opted ruling class. Productivity could have risen by making the public sector leaner, but in view of falling investment rates and jobs, more people would be driven to poverty employment. It remains a welfare enhancing measure that the decline in productivity was not offset by shedding labour. Extracting greater output per worker by raising labour market flexibility would have probably accelerated the social time leading to the uprisings; although (as per the Leninist approach) the uprising would have been triggered first by the loosening grip of the ruling class on the repressive apparatuses of the state, including its ideology, rather than worsening social conditions.

Save the leakage due to high imports and capital flight, public sector employment expansion has contributed to welfare from its distributional or demand component side by creating public sector jobs that act as a proxy for automatic stabilisers in the absence of the usual stabilisers. However, from a macro perspective, two points still attenuate the stabilising effect of low wage employment or public sector employment. First, too many people employed at low wages lift demand only slightly and, as evidenced by the declining labour share, demand was compressed, and; secondly, the rising size of imports in staple items implies more of the money earned by workers will pay for commodities produced abroad. Unruly openness

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<sup>5</sup> See Economic Research Forum (ERF) research output emphasizing neoliberal policies: [http://www.erf.org.eg/cms.php?id=research\\_completed](http://www.erf.org.eg/cms.php?id=research_completed)

policies de-industrialised the AW and open capital accounts drew the financial wealth abroad in dollarised form. Here, one must note that given that the ruling class enjoys such a high share of national income (more than 70 percent), pegging the exchange rate does not subsidise the price of bread or the staple consumption basket, but the steady conversion of national assets at fixed exchange prices into dollarised assets abroad.

With investment rates dipping and the number of people coming of working age rising, the stock of capital per worker declines (the opposite of capital deepening in the neoclassical sense and a lower rate in the technical composition of capital leading to lower relative surplus value in the narrow Eurocentric-Marxian sense).<sup>6</sup> The initial physical stock estimate in Figure II is estimated via regression (again this estimate is just indicative of stock across time and not an accurate yearly measure). The negative impact on growth from the falling stock of capital per worker is doubly potent because Arab economies are de-industrialising and losing high output to capital stock. Between 1970 and 2010, the shares of industry in Syria, Egypt, Algeria, and Iraq, went down respectively from 19 to 5, 21 to 15,<sup>7</sup> 10 to 2, and 12 to 4 percent (UNIDO, various years).

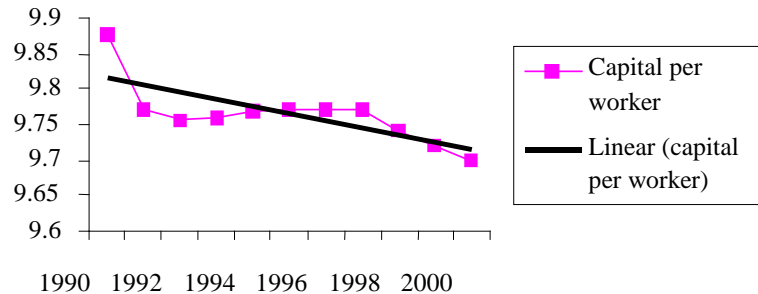
Moreover, the fall in industry – in share and quality – the sector that requires the most knowledge to be infused in production, brings down with it scientific and cultural developments. It is not anomalous for Arab economies to exhibit low knowledge-based economies and to move into low-productivity areas as the culture of de-industrialisation proceeds. The combined losses in productivity growth and the organised power of labour have relegated the broad working class to misery as rising inflation cuts into already declining real wages. Real wages are determined by the product market (not the labour market), but so is the general price level (Kalecki, 1972). In the absence of unions demanding a rise in wages to offset inflation, the increase in the price level will decimate real wages as happened across the AW. By liberalising its markets, the AW dismantled its own deep supply and value chain that it has acquired in its post-independence era industrialisation. It later failed to absorb new and better technology during the openness phase. FDI destined to the AW was resource seeking and did not spill over in positive linkages to the national economies (Krogstrup, 2005). The truly absurd side of the openness paradigm advocates freeing trade and capital markets while the AW is subjected to incessant US-led imperialist assault. The economy is a principal part of the security structure and so is the level of subsistence of the working class. Rations are common in wars. In a region so strategic for its resources and imperialist power positioning, the neoliberal openness was in actuality a surrender policy meant for tribute extraction directly through petro-dollar flows, or indirectly, the dollarization of global transactions backed by imperialist hegemony over oil.

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<sup>6</sup> I mention 'narrow sense' because relative surplus value cannot be equated with declining productivity, but it is sometimes used as such for reasons of elucidation. Value creation knows no borders and it begins with exploitation in the colonies. Hence, the one-country social product and its surplus value are formed in relation to capital accumulation on a global scale, or to use Emmanuel's point: commercial exploitation (Emmanuel, Arghiri. *Unequal Exchange*, Monthly Review Press, 1972).

<sup>7</sup> The data from Egypt may be too corrupt. National sources cite a manufacturing rate of 9 percent around 2009.

**Figure II.** Trend in capital per worker (*thousands of United States dollars*)



*Source:* based on data from the UN statistics database.

## V. The macro conditions

The Arab Spring brought conflicts to Libya, Syria and Yemen. In addition to a long list of existing ones and the prospect of a major war in the Gulf, conflicts or their threats dampen the enthusiasm for long-term investment. Private investment, the key driver of the free market agenda, is especially sensitive to political uncertainty. With the market agenda constraining public sector expansion, the crowding-in effect of public investment in less than full employment conditions also vanishes. State autonomy is itself the guarantor of long-term investment. As oil prices receded as of late, beginning in October 2014, lower oil revenues will most likely impact the less oil endowed economies whose debt overhang requires foreign exchange for servicing. Their national currencies will come under pressure, their growth rates might tumble and income inequality will gape further away (inflation without autonomous unions lessens wages). Yet, with open capital account policies staying put, the ruling classes in the AW in general and the Gulf countries in particular will continue to export capital (UN, 2008).

Longer-term private investment depends on the capacity of the public sector to provide an implicit insurance scheme for local or foreign investors. After years of de-industrialisation, the region lacks the capacity to absorb technological spill-over from the outside through imports of capital goods (Krogstrup, 2005). Under protected market safeguards, financing industrialisation may be generated *causa sui* as the future guarantees the present or as social gains retranslate into economic ones (Kalecki, 1972). Under openness, the Arab population grew faster than the national growth in basic foods and life necessities. The working population withstood inflationary difficulties partly because of the increase of demand over the supply of necessities (agricultural production in particular). By neglecting agriculture and allowing importers of necessities to create artificial scarcity by limiting supply and hiking prices, the working class ends up paying twice for the openness policies - rising world prices and monopolistic price mark-up from local chartered importers.

The reflex-like action would suggest that reversing the trend requires a substantial increase in industrial production that should be accompanied by a simultaneous expansion in the agricultural sector. This is a tall order from social formations whose class structure did not budge after the Arab Spring. The ideological defeat of socialist ideology implies that nationalisation of assets does not protrude anywhere in development agenda. Redressing industrial and agricultural shortfalls, in whichever way (nationalised or privatised), would buttress the national and joint security of Arab states; missing security, especially working class security, is the crux of the Arab development problematic because it would run counter to imperialist objectives banking on positioning in the region as a result of the joint weakening of Arab working classes and their states.

Ideally, boosting national agriculture would reduce the hikes in prices of foods and other necessities. However, in the past three decades, most Arab countries joined the WTO and acquiesced to the free agriculture clause. Greater openness in agricultural markets rendered their economies susceptible to international price fluctuations and import surges. An FAO commentary on the impact of this liberal economic climate on the developing agricultural markets maintains that '[as] countries reduce tariffs and bind them at low levels, they become increasingly vulnerable to external agricultural market instability and to import surges that could destroy viable, well established or nascent production activity' (FAO, 2001).

There is a very low elasticity of job growth in relation to economic growth in the AW. The official unemployment rate for Arab countries went down cumulatively by around three percentage points for some fifty-percentage point of growth between 2002 and 2011 (WDI, various years). No rates of economic growth can ensure employment expansion (in decent jobs) under the mainstream policy framework. The neoclassical criterion for job creation (wage equal the marginal product of labour) is based on the values of the alliance of Arab ruling classes and their international partners and not working class concerns. By the marginal product approach, Arab workers get zero wages. The values of the Arab ruling classes, in turn, have become the values of international financial capital whose objectives are to demolish sovereign states and devalorise the region. These are not hypothetical objectives. This a close reading of development gone from bad to worse, the heightened degree of conflicts and deconstructed states. I am not going to use the term failed states, because states are not students in the exam as the platitude of capital disseminates; states as potential forms for working class struggles are dismantled by neoliberalism and or effective bombardments.

US-led imperialism has a vested interest in prolonging regional wars because war for the sake of war is a principal tributary to global accumulation. In its minor facet, war is a great factory employing millions of people as soldiers with modern technologies destroying and creating values – commodities and services. However, war strengthens the belligerent facet of the capital relationship, that is imperialism as a sociological relationship, and by which the snatch of Third World resources resumes. War devalorises sources of labour and raw material for capital, or cheapens costs of production globally while maintaining imperialist power. The connection between oil and the United States dollar a la Patnaik defines the key reason why the AW is under continuous assault.

The missing link had one had the choice of a better development policy, it would be a nationalist framework that would redeploy savings into Arab industrial projects. Credit to expand economic activity could be generated by nationalist sources, as autonomous states issue debt against the future (debt monetisation). However, few Arab states are now

autonomous and the financial resources of the region have been caught within a neoliberal game structure that has resulted in their divestiture. Moreover, given the degree to which capital is internationalised through finance and labour is sectionalised by identity and nationalist reifications, getting anything done without international solidarity is a dream.

Moreover, declining rates of investment in plant and equipment demand a lower level of capitalised human resources (social investment in labour) to complement them. But the AW followed a two-path approach in respect to building skilled labour capacities. First, there is the low capitalisation of human resources that can be attributed to the low degree of industrial investment, which has also contributed to delaying the introduction of new technology and prevented efficiency gains, and; secondly, the AW produced a class of highly educated workers for whom the level of industrial culture in the AW has become non-matching and, as such, the group is part of large brain-drained diaspora. These are examples of the damaging kinds of fiscal leakages or value transfers to empire.

However, any attempt to retain resources nationally must take into consideration the lacking sovereignty of Arab countries. None are secure, in terms of working class security, which is the substance of sovereignty. The Arab working classes continue to be disarmed ideologically in terms of resistance to imperialism, first by the universal collapse of the socialist model, and; secondly, by financial manipulation. With ideas of solidarity ebbing, identity or ethnic wars to grab a bigger slice of national income pits people against each other in a race to the bottom. Sovereignty is synonymous with security; the least sovereign are the Gulf States, whose security is provided by US imperial cover. The Gulf sovereign funds cannot be sovereign as they emanate from non-sovereign states. In any case, the many trillion dollars in Arab assets abroad (no reliable estimate exists) cannot fall under the control of Arab Emirs. This huge cash amount must remain an unrequited transfer or an un-cashed cheque for it is too substantial for the US economy to be held by peripheral vassals. But given the primacy of control to imperialism over intermittent running costs, some of these funds are channelled to force through divisiveness in the region on the basis of sectarian identities fuelling wars.

Grabbing people's wealth via repressive measures, wars and neoliberal policies are aspects of the real corruption process. Corruption is not the meagre bribe that a civil servant receives. Real corruption is that which channels national resources into anti-social and anti-developmental ends. This corruption is not illegal. It is ordained in the open capital accounts policies of neoliberalism, which converts national assets into dollars backed by the national reserves of the working class, and either integrates them or ships them abroad into the global financial markets. Presently, it would be anti-constitutional to arrest human and financial resource outflows. In the current institutional context, the reallocation of resources to private use or to waste under the marked capital bias of the state, which mediates the divide between capital and labour not to satisfy national ends but imperialist goals, constitutes gelled obstacle to development. Corruption is not a moral category specific to Arabs. Arabs do not exist, whereas Arab social classes do. Corruption is intrinsic to the imperialist-bowing state. Any serious reform effort must confront the political apparatus that accords primacy to private accumulation by a merchant class, which is subordinately partnered with US-led capital. How did conditions evolve as such?

## VI. Closing comment

As the AW de-industrialised and the class of merchants speculating, snatching, importing, and exporting allocated resources, a mercantilist mode of accumulation replaced its nascent industrial capitalism. A principal characteristic of merchant capital bereft of industry is absence of positive intermediation between private and social wealth – simply, merchants leave behind the progressive side of capitalism, of which in any case little exist in the Third World. The merchant mode of accumulation revolves around quick private gains and does not require productive reinvestment in society; the usurpation of value by financial means is a subsidiary outcome of the power allotted to this class by imperialist overseeing. The practice of merchant capital mimics that of financial capital, in the sense that money is transmuted into money without direct involvement in production processes. Rentier or rent-grab maybe too general a categorisation; it is also something of a misnomer, meant to support an *ad hominem* against working class Arabs argument which conceals the fact that value transfers away from the working classes in the AW are conducted by an alliance of national as well as by US-led international financial capital. The resurrected merchant mode of accumulation is a reincarnation of medieval mercantilism in a modern guise. The degeneration in social and political rights, including the status of women, is a vivid manifestation of the social retrogression driven by the ebbing of industrial culture in much of the AW.

Apart from losing major wars that restructured society in more advanced Arab countries (Syria, Egypt, and Iraq) there was a prevalence of geopolitical flows from the Gulf States that contributed to de-industrialising more industrialised economies (remittances acting like the Dutch disease). The AW thus became an economy that could not for structural reasons produce decent jobs, and where profits without effort had gripped the mind-set. In this context, cheapening life and reducing people to commodities became part of the shift to the merchant mode and the value usurpation process. For the Arab working class, this is a process that religious alienation – imaginary projection of the causation of worldly misery onto a supernatural power – can only momentarily redeem. As working people endure harsher conditions, it appears that the Islamisation of political life offers a short-lived reprieve to the merchant ruling class.

The core issue is about channelling wealth to the working class as a right – not as charity. Under the unregulated market framework, unemployment in the AW became systemic (cyclical). This has nothing to do new technology becoming old or asymmetric information. Wars sapped development and the commitment of the ruling cliques to development evaporated as their classes joined their natural allies in the safer international financial space. Job creation fell because of shifts in the class structure towards merchant activity and the rise to power of ruling classes committed to the imperialist agenda, whose reproduction as a social class is materially underpinned by its allegiance to imperialism. The danger of these un-nationalistic classes is that they are the historical allies of US-led financial capital, which has a vested interest in dismantling Arab states. That said, in the absence of socialising options (land reform, protectionism and egalitarian distribution) toward which popular movements can strive, political uprisings such as the Arab Spring need not imply progress. The ruling class changes face, but does not change its substance.

Alongside imperialist bellicosity, the merchant mode of accumulation obstructs integrative transformation, both nationally and regionally. Mal-distribution and the near-absence of positive intermediation between private and public wealth remove the welfare base for working class autonomy and, hence, national integration as well. Here, especially targeted is



agriculture, which sustained the biggest losses in investment. Under the merchant mode, the private sphere develops a necrotrophic relationship with the social sphere. Merchants grab social wealth without putting back value into society causing the social-national side of the economy - which is not integrated with global financial capital – to die slowly.

The Arab merchant mode is principally about taking raw or semi-raw products out of the nation states and selling them abroad and or importing manufactured goods for sale at home. Alongside chattel slavery, nationalisms laced with racism, and colonial genocide, it was European mercantilists who engaged wage labour in industry and introduced technology and a complex division of labour. In this way they initiated the wealth-making process of capitalism circa 1500 AD. Mercantilists, under the global pressure of rising trade volumes, engaged wage labour in industry to meet the demands of the world market. They grew into capitalists. In the AW, however, the reverse happened. De-industrialisation, regime stabilisation spending derived from oil or geopolitical revenues, and the rise of informal or low-productivity service activity laid the foundation for the new material basis of merchant-class relationship. The subjugation of national capital to norms of financial capital, whose activity is centred on money exchange, also accelerates and shortens the duration of the turnover of profits in the national economy.

Imperialist hegemony and the merchant mode are interrelated; they reinforce each other. However, imperialist assault is the key historical moment around which all other moments coalesce. The merchant mode of accumulation sets in motion anti-integrationist dynamics. It splinters. If a scale of reference serves to illustrate the point, it divides according to the magnitude of merchant capital subordination to US-led imperialism whose activates centre on financial capital. The latter has an interest in promoting encroachment wars in the region because it releases regional resources at cheap prices and positions itself against other competing capitals. The power it draws from this regional positioning underwrites the transactions in dollar form and the issuance of the dollar globally. Furthermore, the merchant mode requires little expansion in productive capacity or synchronisation of human skills with expanding technology. Merchant capital would foment a civil war in the nation state or over-extend to capacities of the state leading it into fragmentation to further the interests of its dominant international partner. In the end, the materialist underpinnings that reproduce the merchant class are found in the international financial dollar space.

The conventional wisdom posits that oil and geopolitical revenues in the AW are unearned incomes. That is a fallacious and misleading claim. These incomes are earned at tremendous social and environmental costs to the working classes; Seen from a holistic perspective, militarisation engages labour on both sides of the fence in an act of self-destruction and creation of value. Capital accumulation begins with the bombardment of the ex-colonies and human losses in war, and the demobilisation of resources are incurred by society as a whole. The reified nation state confounds oppressors with the oppressed. The joint loot of the Arab ruling classes and their international financial patrons *is* unearned income; however, the rest of the Arabs – the street vendors, the unemployed, and the poverty-and-war–stricken populations – have more than earned their share.

As the merchant mode governs social activity, oil and geopolitical revenues are mainly spent on increasing imports, domestic pacification, and foreign assets. These measures address US-led imperialist goals that thrive on the pauperisation and disempowerment of Arab working classes. A disempowered working class imparts its insecurity at the national level and, by implication, boosts imperialist hegemony. In the integrated web of global production,

national boundaries can no longer disguise the fact that capital draws on a huge pool of global resources. The idleness of Arab resources is closely tied to the central crisis of overproduction. Deductively, wealth is humanity's wealth and, conversely, working class de-integration in the AW is the heavy price paid for the unearned income of their ruling-class alliance with international financial capital. More important, the re-empowerment of Arab working classes could dent the hegemony of the US alliance over a region in which they enjoy 'the freedom of action – notably military action – that is almost unparalleled globally' (Levy, 2103).

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## From TEXIT to GREXIT? – *Quo vadis hellas?*

Claude Hillinger [Germany]

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Two weeks of high political drama and entertainment have passed since the election victory of Syriza. By engineering the TEXIT, the not quite voluntary exit of the Troika as overseers of the Greek reform process, they signaled the beginning of a new era, not only for Greece, but for Europe as a whole. This was followed by extravagant demands – a debt reduction to allow Greece to breathe and a new Marshall Plan for the South of Europe, to be called 'Merkel Plan'. Predictably, given their weak bargaining position, Premier Tsipras and his Finance Minister Varoufakis returned from their road show largely empty handed. The initial euphoria of much of the Greek electorate is turning into disillusionment. It is surprising that the game theorist Varoufakis misjudged his bargaining strength to such a degree.

The intrusion of reality onto phantasy generally produces a shock, but that shock can be healthy if it leads to a smart and realistic response. True, the situation in Greece is quite bad, **but it is already improving**. The primary government budget, which excludes interest payments, has turned positive, as has the current account. Economic growth was also slightly positive in 2014. If Syriza turns out to be even half as good at governing as they have been at entertaining, then the Greek economy will continue to improve. Given this fact, plus their impressive electoral victory, Syriza would have to make some big mistakes to get into serious domestic difficulties soon.

So, what should Syriza do now? Ultimately, they will be judged by their performance in three broad areas: 1. Reforms in all areas of Greek society; 2. Getting the economy out of its depressed state as quickly as possible; 3. Finding a long term solution to the debt problem. The first two areas require immediate attention, the third can only be dealt with after substantial progress has been made with the first two.

- 1. Reforms:** When in a society corruption and clientism have been rampant for decades, or even generations, then a successful reform policy must concentrate on successively picking the lowest hanging fruit, meaning those reforms that are most easily implemented and yield the biggest benefits. Near the top of any such list and in accordance with Syriza's campaign promises would be the revolutionary idea of collecting taxes also from the rich. This and other important reforms are also among those demanded by the Troika. Syriza is right though in rejecting Troika imposed 'reforms' that are based more on ideology than on sound economics. Here, wholesale privatization comes to mind which has nowhere worked as predicted by its advocates. This, Syriza is rightly already stopping. As reforms are successively implemented and their benefits become apparent, attitudes in the population will also change and further reforms will become easier to implement.
- 2. Ending austerity:** This has been the most important campaign promise of Syriza. They wanted to accomplish this by means of generous aid from the creditor nations and Troika, but that aid is not forthcoming. So, what to do? I have recently proposed that Greece should install a second currency, entirely under its own control, with

which it could generate additional demand and thus reflate the economy.<sup>142</sup> I repeat the proposal here, with slight changes, one being that I would now call this currency 'Drahme' rather than 'Geuro' to reflect Greek pride and independence. I also discuss some of the very interesting comments received.

### **3. A second currency for Greece.**

#### **Here is my proposal**

The Greek government should create a *second currency* to be named the *Drachma*. The Drachma would be legal tender with the same value as the Euro, *but for domestic payments only*. Any payment, in the private sector, or to the government, for example for taxes or fees, could be made equally in Euros, Drachmas, or any combination of the two.

The government would start to make all payments, for wages, transfers, etc. with a combination of the two currencies. For example, they could set a ratio of 80% Euro, 20% Drachma. Without any further aid from the EU, the Greek government could increase its spending in this example by 20%.

The government should mandate banks to open a Drachma account parallel to every Euro account so that the Drachma could be freely used in payments through the banking system. There would however be no obligation for a bank to exchange Drachmas for Euros. Also, banks would be prohibited from making loans in Drachma, so that there would be no additional instability introduced because of possibly nonperforming Drachma loans. Each Drachma would again be spent by its recipient, creating a multiplier effect until finally returned to the government in the form of taxes or fees.

Under my proposal, the Greek government could quickly and very substantially increase domestic demand, which was its principal campaign promise and it could do so without the need for agreement on the part of some external authority.

I can see further long term benefits from such a system, not only for Greece, but for all countries of the Euro zone. The introduction of the Euro was a mistake, but abandoning it now would be very costly both in real and psychological terms. Under my proposal, the Euro could be maintained, while giving to the individual countries the possibility of a flexible anticyclical fiscal policy, a possibility that they now lack.

#### **Comments received**

A very interesting comment came from Avner Offer. I quote: "Britain maintained a dual-note system, with unlimited Treasury notes circulating alongside Bank of England notes between 1914 and 1928. Not quite the same as the proposal, but similar in that the Treasury note issue allowed a large increase of money supply in defiance of existing legislation." Bank of England notes were subject to the gold standard so that their volume could not be determined by the government. When war erupted in the summer of 1914 the government desperately needed funds to prepare for total war. So it issued treasury notes not subject to the gold standard and made them legal tender.

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<sup>142</sup> <https://rwer.wordpress.com/2015/01/29/greece-keep-the-euro-add-the-geuro/>



The problem faced by England a century ago and the problem facing Greece today are quite similar, only Greek spending is limited by the less than overwhelming generosity of donor countries rather than the gold standard. My proposal is also quite similar to that adopted by England in 1914: if you can't expand the currency that you have, get an additional one!

Trond Andresen has for some time been advocating a payment system based on mobile phones, similar to ones that have been installed in some African and Latin American countries. All participants would have an account at the central bank and payments would be made from one account to another by sms. Among the advantages of a mobile payment system listed by Andresen is the following; "A black economy in Mobile Dollars is close to impossible. The same with tax evasion. Intelligent software can monitor transactions 24/7, and flag human operators when suspicious patterns emerge. Knowledge of this implies a credible threat, so that agents to a large degree will abstain".<sup>143</sup> That may be an advantage, but do we wish to give to Big Brother such total control?

### **A long-term solution for Greek debt**

We are living in an age of rising inequality of income and wealth, rising public and private debt and increased financial instability. All of these are related. The relationship between creditors and debtors is asymmetric with power usually concentrated on the side of the creditors. Considering all of these aspects in relation to the Greek debt is way beyond the scope of this article. I will make some more limited remarks.

Is the Greek debt sustainable? Lorenzo Bini Smaghi<sup>144</sup> argues, rather convincingly in my view, that it is. But that is not the only issue, there may be both moral and economic arguments for reducing the debt. Syriza wanted an immediate debt reduction, but its bargaining position was too weak to obtain this. However, if Syriza governs well in the coming years, putting reforms in place, generating growth and getting the economy close to the full employment level, its bargaining position will be much improved. It would be further helped if it had the Drachma in place as a second currency that could easily assume the role of a standard currency. Grexit would have become a credible threat. Other leftist parties, like Podemos in Spain, might by then also be in power and the time could be ripe for a general debate about debt in the Euro Zone and what best to do about it.

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<sup>143</sup> Andresen's argument can be found at:

[http://www.itk.ntnu.no/ansatte/Andresen\\_Trondecon/mobiledollars.pdf](http://www.itk.ntnu.no/ansatte/Andresen_Trondecon/mobiledollars.pdf) and at

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<sup>144</sup> <http://blogs.ft.com/theexchange/2015/01/12/lorenzo-bini-smaghi-is-greeces-debt-really-so-unsustainable/>

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