



# Trinity College

HARTFORD CONNECTICUT

Department of Economics  
Trinity College  
Hartford, CT  
06106 USA

<http://www.trincoll.edu/depts/econ/>

## TRINITY COLLEGE DEPARTMENT OF ECONOMICS WORKING PAPER 12-01

### Real Sector Imbalances and the Great Recession<sup>\*</sup>

Mark Setterfield

January 2012

#### Abstract

While much attention has been focused on the financial woes of the US economy in the wake of the Great Recession, this chapter focuses on an important real sector imbalance: the failure of real wages to keep pace with productivity growth over the past three decades. This imbalance is shown to create a structural flaw in the aggregate demand generating process that threatens to undermine future macroeconomic performance. The chapter reflects on the policy responses necessary to remedy this situation, and the likelihood that the US will succeed in avoiding a future of secular stagnation.

**J.E.L. Codes:** E21, E24, E25, E61, E66

**Keywords:** Real wage growth, productivity growth, aggregate demand, household debt, Great Recession

<sup>\*</sup> Paper prepared for H. Herr, T. Niechoj, C. Thomasberger, A. Truger and T. von Treeck (eds) *From Crisis to Growth? The Challenge of Imbalances and Debt*, Marburg, Metropolis Verlag. The discussion that follows is based on M. Setterfield (forthcoming) "Real wages, aggregate demand and the macroeconomic travails of the US economy: diagnosis and prognosis," in B. Cynamon, S. Fazzari and M. Setterfield (eds) *After the Great Recession: Keynesian Perspectives on Prospects for Recovery and Growth* Cambridge, Cambridge University Press.

An earlier version of this paper was presented at the International Confederation of Associations for Pluralism in Economics (ICAPE) Third Triennial Research Conference, University of Massachusetts, Amherst, USA, November 2011. I would like to thank, without implicating, conference participants – and in particular, Amitava Krishna Dutt and Jim Stanford – for their helpful remarks.

## 1. Introduction

In the aftermath of the recent financial crisis and Great Recession, much attention has been focused on financial imbalances in the US economy and the need for financial sector reform. There is, without doubt, good reason for this. But it is important not to overlook the fact that, prior to 2007, the US was bedeviled by important *real* sector imbalances. These real imbalances, which were important contributory factors to the financial crisis and Great Recession, and which continue to threaten the macroeconomic performance of the US economy going forward, are the focus of this chapter.

The central arguments are as follows. Balanced growth of aggregate demand and aggregate supply requires (as a first approximation) that real wage growth keeps pace with productivity growth. But this has not happened in the US since the early 1970s. The result is a structural flaw in the aggregate demand generating process in the US economy, creating a *latent* aggregate demand deficiency. The aggregate demand deficiency was latent for several decades following its initial emergence because of the existence of numerous temporary and unsustainable “offsets” (Palley, 2002) – most notably, household debt accumulation. Since 2007, however, the aggregate demand deficiency has become dramatically manifest, thanks in large part to the exhaustion of the household debt accumulation “engine” of US consumption growth. These developments now threaten a future of secular stagnation which, in turn, constitutes a formidable policy challenge for the US economy.

The remainder of the chapter is organized as follows. Section 2 outlines the importance of the relationship between real wage and productivity growth for balanced growth in the goods market using growth accounting and simple Keynesian consumption

theory. Section 3 discusses recent (post 1970s) US experience in light of this exercise, while section 4 outlines the prognosis for the US economy. Section 5 offers some conclusions that focus on the policy challenges currently confronting the US economy.

## 2. Some Keynesian Growth Accounting

The core argument on which this chapter is based is straightforward to demonstrate using some simple Keynesian macroeconomic theory and growth accounting techniques. Using  $Y$  to denote aggregate output,  $AD$  to denote aggregate demand, and  $C$  and  $A$  to represent aggregate consumption and all other sources of expenditure, respectively (with all variables in real terms), we begin by noting that goods market equilibrium requires:

$$Y = AD \quad [1]$$

where:

$$AD = C + A \quad [2]$$

Meanwhile, we can write:

$$Y_p \equiv \frac{Y_p}{L} L \quad [3]$$

where  $Y_p$  denotes potential output and  $L$  the labour force. By substituting [2] into [1] and converting both the result of this substitution and equation [3] into growth rates, we arrive at:

$$y = \omega_c \hat{C} + (1 - \omega_c) \hat{A} \quad [4]$$

and:

$$y_p = q + n \quad [5]$$

where  $y$  and  $y_p$  are the rates of growth of actual and potential output (respectively),  $q$  is the rate of growth of labour productivity,  $n$  is the rate of growth of the labour force, and  $\omega_c$  is the share of consumption spending in aggregate demand.

Now note that in order to get steady growth consistent with a constant rate of employment, we must observe  $y = y_p$ . This follows from the fact that, by definition, the rate of employment ( $e$ ) can be stated as:

$$e = \frac{N}{L} = \frac{\frac{N}{Y}Y}{\frac{L}{Y_p}Y_p}$$

If  $N/Y = L/Y_p$  – that is, if the labour to output ratio is invariant with respect to the scale of production at any point in time (as, for example, when production is characterized by a Leontieff technology) – it follows from the statement above that:

$$\hat{e} = y - y_p$$

It is now obvious that we must observe  $y = y_p$  in order to get  $\hat{e} = 0$  and hence a constant rate of employment in the steady state. In fact, this result is imperative since, if  $y \neq y_p$  so that  $\hat{e} = c \neq 0$ , a secular trend in the employment rate will result. But since  $e$  is bounded above and below (by 0 and 1, respectively), this is impossible to sustain. In other words, we *must* observe  $y = y_p$  in order for steady state growth to be sustainable. It follows from this analysis, together with equations [4] and [5] above, that a necessary condition for sustainable steady state growth is:

$$\omega_c \hat{C} + (1 - \omega_c) \hat{A} = q + n \quad [6]$$

Now suppose that:

$$C = c_w wN + c_\pi \Pi + D$$

where  $\Pi$  denotes total profits,  $c_w$  and  $c_\pi$  are the propensities to consume of worker and capitalist/rentier households (respectively), and  $D$  is net new borrowing by worker households (defined as the difference between workers' total consumption and the consumption that can be funded by current wage income, given the propensity to consume  $c_w$ ). Assuming that  $0 = c_\pi < c_w < 1$ :

$$C = c_w wN + D$$

It may appear that the consumption function above neglects the fact that borrowing causes the accumulation of debt on which interest payments must be made by debtors. But in fact this is not the case. Hence note that  $c_w < 1$  allows for part of total wage income (specifically,  $[1 - c_w]wN$ ) to *either* be saved *or* transferred to capitalist/rentier households to service the outstanding debts of working households,  $\Sigma D$ . Moreover, if we assume that  $(1 - c_w)wN > r\Sigma D$  (where  $r$  is the real interest rate) and that debt servicing is considered a substitute for saving by working households, then the consumption function above will successfully describe aggregate consumption spending (with  $c_w$  constant) despite the fact that  $D > 0$  implies increasing household indebtedness and hence, for a constant rate of interest, increasing debt servicing out of wage income by working households. This is because, under the conditions posited above, we will observe:

$$S = (1 - c_w)wN - r\Sigma D + \Pi + r\Sigma D = (1 - c_w)wN + \Pi$$

where  $S$  denotes aggregate saving and  $r\Sigma D$  captures transfer payments out of working-households' savings to capitalist/rentier households to service currently outstanding

debts. As can be seen from this expression, debt servicing has no effect on aggregate saving (and hence aggregate consumption).<sup>1</sup>

Now note that the consumption function derived above can be re-written as:

$$C = c_w w \frac{N}{L} L + D$$

from which it follows (assuming that the employment rate,  $N/L$ , remains constant) that:

$$\hat{C} = \omega_y (\hat{w} + n) + (1 - \omega_y) \hat{D} \quad [7]$$

Substituting [7] into [6] and re-arranging, we arrive at:

$$\omega_c [\omega_y \hat{w} + (1 - \omega_y) \hat{D}] + (1 - \omega_c) \hat{A} = q + (1 - \omega_c \omega_y) n \quad [8]$$

Now assume that:

$$\hat{D} = \hat{w} + n$$

or in other words, that the deficit to income ratio of working households remains constant. Substituting this last expression into [8] yields:

$$\omega_c \hat{w} + (1 - \omega_c) \hat{A} = q + (1 - \omega_c) n \quad [9]$$

Finally, as  $\omega_c \rightarrow 1$ ,<sup>2</sup> the expression in [9] reduces to:

$$\hat{w} = q \quad [9a]$$

What equation [9a] establishes is that as a first approximation, sustainable long run growth consistent with a constant rate of unemployment requires the equality of real wage growth and productivity growth.

---

<sup>1</sup> Obviously this argument cannot be sustained indefinitely if total indebtedness and hence debt servicing commitments grow to the extent that debt servicing exceeds working households' saving at the constant propensity to consume,  $c_w$ . In this case, the propensity to consume out of wages must fall, or else working households will default on their current debt servicing commitments. In either case, current consumption *will* then be affected by debt servicing commitments resulting from prior borrowing activity. Essentially, then, we are abstracting from these possibilities in the analysis above.

<sup>2</sup> Historically,  $\omega_c \approx 0.66$  in the US economy. Currently,  $\omega_c \approx 0.70$ .

### 3. Recent US Experience

Based on the analysis in the preceding section, it immediately becomes obvious that a key problem with US growth since the 1970s has been that real wage growth has consistently fallen short of productivity growth. This is illustrated in Figure 1, which shows that since the early 1970s, production and non-supervisory workers have experienced real wage growth that has been systematically slower than productivity growth, whether we look at real wages narrowly defined or total compensation (which includes fringe benefits such as employer contributions to health insurance premia and pension plans).<sup>3</sup> To the extent that the experience of production and non-supervisory workers is representative of that of all workers, then, Figure 1 implies (in light of the analysis in section 2) a structural flaw in the US aggregate demand generating process, as a result of which aggregate demand growth will struggle to keep pace with potential output growth.

FIGURE 1 GOES HERE

In fact, the experience of *all* employees (including supervisory workers) *has* been similar to that of production workers – as evidenced by the decline in the US wage share since late 1970s – but only somewhat so (Atkinson, 2009; Glyn, 2009). This is because of the burgeoning wage inequality that has accompanied the redistribution of income from wages to profits over the past thirty years (Palley, 2002; Piketty and Saez, 2003; Wolff and Zacharias, 2009; Atkinson et al, 2011).<sup>4</sup> But ultimately none of this detracts from the

---

<sup>3</sup> See also Fleck et al (2011).

<sup>4</sup> Piketty and Saez (2003), Wolff and Zacharias (2009) and Atkinson et al (2001) all focus on the evolution of “top incomes” in the US, showing that even as top capital incomes have increased over the last thirty years, so the “working rich” have, in increasing numbers, joined capitalist/rentier households at the top of the income distribution. See also Mohun (2006) on the correct accounting treatment of the “wage” income earned by the “working rich”.

story told by Figure 1 and its consequences for the US economy, especially if the characteristics of supervisory worker households more closely resemble those of capitalist/rentier households than production worker households. Hence given:

$$wN = w_p \varphi N + w_s (1 - \varphi)N \quad [10]$$

where  $\varphi$  denotes the proportion of production workers among total employees, and if we can write as a first approximation:

$$C = c_w w_p \varphi N + c_\pi (w_s [1 - \varphi]N + \Pi) + D$$

then assuming  $0 = c_\pi < c_w < 1$  (as in section 2) now yields:

$$C = c_w w_p \varphi \frac{N}{L} L + D$$

$$\Rightarrow \hat{C} = \omega_y (\hat{w}_p + \hat{\varphi} + n) + (1 - \omega_y) \hat{D} \quad [7a]$$

The expression in [7a] is qualitatively similar to that in [7], except that consumption growth – and hence the capacity of aggregate demand growth to keep pace with potential output growth in equation [8] – is now shown to depend on growth in the real wages of *production* workers, precisely the group that is the focus of Figure 1. Note also that, according to [7a]:

- a)  $\hat{\varphi} < 0$  – i.e., growth in the proportion of employees who are supervisory workers (on which see, for example, Gordon, 1996) – will antagonize the problems of aggregate demand formation by reducing consumption growth (*ceteris paribus*);
- b)  $\hat{w}_p < \hat{w}_s$  (which, *ceteris paribus*, implies from equation [10] a rising share of wage income accruing to supervisory workers and hence the increased wage

inequality observed by Palley and others) and, as a consequence,

$\hat{w}_p < \hat{w} \Rightarrow \hat{w}_p + n < \hat{w} + n$ , will further antagonize the problems associated with the aggregate demand generating process, by making the growth of consumption spending in [7a] slower than its equivalent in [7] (*ceteris paribus*).<sup>5</sup>

The substance of Figure 1, in terms of the analysis in section 2, is, therefore, that since the 1970s, there has existed a structural flaw in the US aggregate demand generating process. As a result of this flaw, which suggests that *ceteris paribus*, aggregate demand growth cannot keep pace with the growth of potential output, the US economy should have experienced slow growth (relative to potential) and rising unemployment over the past thirty years. But of course it *didn't*. On the contrary, since the early 1990s (and prior to the onset of the Great Recession), US macroeconomic performance has been quite respectable by both historical and contemporary comparative standards, with unemployment falling to rates last seen in the early 1970s by the start of the current millennium. The question we confront, then, is the following: what offset the latent aggregate demand deficiency caused by deficient real wage growth in the US economy? Or more specifically, bearing in mind that the importance of consumption as a fraction of

---

<sup>5</sup> Note that production workers' share of the total wage bill can be written as:

$$\sigma_p = \frac{w_p \varphi N}{wN} = \frac{w_p \varphi}{w}$$

$$\Rightarrow \hat{\sigma}_p = \hat{w}_p - \hat{w}$$

where  $\varphi$  is taken as given. Meanwhile, it follows from equation [10] that:

$$\hat{w} = \sigma_p \hat{w}_p + (1 - \sigma_p) \hat{w}_s$$

$$\Rightarrow \hat{\sigma}_p = (1 - \sigma_p)(\hat{w}_p - \hat{w}_s)$$

It is clear from this last expression that  $\hat{w}_p - \hat{w}_s \Rightarrow \hat{\sigma}_p < 0$ , from which it follows (referring back to the original expression for  $\hat{\sigma}_p$  derived above) that  $\hat{w}_p < \hat{w}$  and hence  $\hat{w}_p + n < \hat{w} + n$ .

GDP has actually *risen* in the US over the past thirty years, what shored up household spending?<sup>6</sup>

One possible answer is the “overworked American” phenomenon: the increased commitment of time to the paid labour market by US working households. But although this phenomenon is real (see, for example, Schor, 1991; Bluestone and Rose, 1997), it is incapable in principle of plugging the gap between aggregate demand and potential output created by slow real wage growth. This claim follows directly from the analysis in section 2. Hence note that an increase in hours worked contributes in the first instance to  $n$  (the rate of growth of the labour force). With  $\omega_c < 1$ , a rise in  $n$  makes a net contribution to the growth of potential output, *exacerbating* the demand-deficiency problem (see equation [9]), while in the limit (with  $\omega_c = 1$ ),  $n$  has no impact whatsoever on the capacity of aggregate demand to keep pace with the growth of potential output (see equation [9a]). In other words, steadily increasing the hours worked by American families cannot, in principle, have helped offset the aggregate demand generating problem created by real wage growth lagging productivity growth. In fact, rather than offsetting the imbalance between real wage and productivity growth, the overworked American phenomenon merely added to the real sector imbalances that characterized growth prior to the Great Recession, by distorting the allocation of working households’ time as between the paid labour market and other (social and family) activities.

---

<sup>6</sup> This last observation – that more than ever, the US economy is consumption-led – is important, because it is quite possible for the dynamics of a Keynesian economy to be profit-led (Bhaduri and Marglin, 1990). In this case, the fall in the wage share of income that results from productivity growth outpacing real wage growth will stimulate the growth of investment spending even as the growth of consumption spending atrophies, and to such an extent that economy-wide growth *increases*. But it is difficult to reconcile this sequence of events, which suggests investment spending displacing consumption spending in the composition of aggregate demand, with the fact that the investment share of GDP has remained essentially static over the past thirty years (Baker, forthcoming) while the consumption share has increased markedly.

What *did*, of course, shore up household consumption spending despite the stagnancy of real wages was unprecedented household debt accumulation (Cynamon and Fazzari, 2008, forthcoming(a); Barba and Pivetti, 2009).<sup>7</sup> Referring once again to the analysis in section 2, US households resorted to a mechanism whereby  $\hat{D} > \hat{w} + n$  and a consequent rise in  $1 - \omega_y$  (the proportion of consumption expenditures financed by debt accumulation) offset the deficiency of real wage growth relative to productivity growth so as to allow aggregate demand growth to keep pace with the expansion of potential output (see equation [8]).

The problem with this “solution” is that, as noted in section 2, it is impossible to escape the fact that accumulated debt needs to be *serviced*. As households accumulate debt to finance consumption they cannot fund from income, this increases their debt servicing obligations, which will ultimately put further strain on their income and its ability to fund consumption, requiring more aggressive debt accumulation to maintain the growth of consumption spending, and so on.<sup>8</sup> This behaviour is all very far removed from households accumulating debt in order to smooth consumption according to an optimal intertemporal plan (as envisaged by the lifecycle consumption hypothesis). But it is all

---

<sup>7</sup> An increase in conspicuous consumption by very high income households may have complemented this development. It certainly seems to be the case that while household debt accumulation *facilitated* the expansion of consumption spending above and beyond what could be funded by income growth, what *motivated* this debt-financed spending were consumption norms that included “emulation effects” based on imitation of the conspicuous consumption of very high income households. See, for example, Cynamon and Fazzari (2008, forthcoming(a) and Dutt (2010).

<sup>8</sup> As noted in section 2, as debt servicing increases in response to rising indebtedness, it can eventually squeeze consumption by exceeding what workers save out of their wage income, thereby forcing a reduction in the propensity to consume out of wages (and hence aggregate consumption spending) if working households are to avoid default. In the language of Pollin (1997), we have a situation where the growth of consumption in equation [8] depends not just on the “ordinary workings of the labour market” (generating growth in wage income), but also on the “ordinary workings of financial markets” (creating continual growth in household borrowing) – a situation which dramatically increases the *financial fragility* of the economy’s growth regime relative to the situation in which consumption growth is fully funded by real wage growth.

quite possible in a world of deficient information and fundamental uncertainty, where consumption and debt accumulation are guided by norms and “animal spirits”. The result is a stock-flow imbalance in the aggregate demand generating process, emanating from household finances. Either the growth of aggregate demand will suffer exhaustion as households eventually retrench by reducing their borrowing (or even more radically, reducing their indebtedness), or the aggregate demand generating process implodes, as defaults due to the rising burden of debt servicing trigger a credit crunch (a sudden reluctance of financial markets to meet the borrowing demands of households) that adversely affects aggregate demand formation, resulting in reduced growth of output and hence employment and hence wage income, which further antagonizes the problem of aggregate demand formation both directly (by reducing the growth of consumption funded by wage income) and indirectly (by increasing the distress of indebted households and their inability to meet current debt servicing obligations), and so on in a deflationary vicious cycle. The claim here is that this latter scenario is essentially what happened in the US beginning in 2007, triggered by an initial wave of defaults emanating from the sub-prime mortgage market.

In sum, over the last 3 decades, the chief characteristic of US macroeconomic performance has not been the much-vaunted “great moderation” (on which see Davis and Kahn, 2008; Galí and Gambetti, 2009), but instead an increasing latent financial fragility. This was brought about by debt accumulation by lower and middle income households seeking to offset their weak real income growth (and, in the process, remedy a structural flaw in the aggregate demand generating process). Eventually, time ran out on this

growth regime: in 2007, the latent financial fragility referred to above became manifest, resulting in the subsequent financial crisis and Great Recession, and their aftermaths.

#### 4. What next?

Although the Great Recession officially ended in June 2009,<sup>9</sup> it is abundantly clear that there has, as yet, been no effective recovery of the US economy. Perhaps the most vivid illustration of this claim is the behaviour of the employment to population ratio.<sup>10</sup> Bureau of Labor Statistics data show that in the six months following the official end of the Great Recession, the employment to population ratio actually *fell* (from 59.4% to 58.2%), since when it has remained remarkably stable during two full calendar years of alleged economic recovery, fluctuating (mildly) around an average rate of approximately 58.5%.<sup>11</sup>

What do these statistics signify going forward? One possibility is that they represent nothing more than a slow recovery from a deep downturn. On this view, the “offsets” that masked the latent aggregate demand deficiency identified in section 3 are still capable of functioning. The credit crunch and reluctance of households’ to borrow that have characterized the period since the onset of the Great Recession are no more than temporary, and once debt-financed consumption spending resumes, the economy will recover. Note, however, that based on the analysis in section 3, such an outcome would represent nothing more than a “winding up of the clock springs” of the same

---

<sup>9</sup> This is the date determined by the Business Cycle Dating Committee of the National Bureau of Economic Research as marking the end of the Great Recession.

<sup>10</sup> The employment to population ratio has become a more reliable indicator of underutilized labour resources in the US economy than the unemployment rate, owing to the marked cyclical sensitivity of the US labour force participation rate in recent decades.

<sup>11</sup> See <http://data.bls.gov/timeseries/LNS12300000>. Prior to the onset of the Great recession in 2007, the US employment to population ratio peaked at 63.4%.

unsustainable growth process that preceded the Great Recession. In the short-medium term, economic growth may increase sufficiently to meaningfully lower unemployment (and raise the employment to population ratio). But the question then becomes: when will the next crisis occur as a result of this fundamentally unbalanced aggregate demand generating process breaking down, and how bad will it be?

If the Great Recession instead heralds an enduring unwillingness to lend to households and/or an enduring unwillingness of households to borrow – i.e., if the pre-2007 “offsets” that masked the structural flaw in the US economy’s aggregate demand generating process are truly exhausted – then *ceteris paribus*, the behaviour of the employment to population ratio noted above would seem to mark the onset of a period of secular stagnation. Of course, other things may not be equal – other “offsets” may come to the rescue. But *a priori* this is difficult to imagine. For example, the prospects of an export boom seem almost non-existent in an economy that has suffered chronic balance of trade deficits for over three decades (and on which aggressively export-led economies – most notably Germany, Japan, and China – have come to rely as a source of external markets). A sudden resurgence of investment spending appears equally unlikely. According to authors such as Cornwall (1971), the investment-led US business cycles of the 1950s and ’60s involved initial recoveries in housing starts (as a result of the housing cycle being slightly out of phase with the business cycle), following which other forms of investment increased as a result of accelerator and “crowding in” effects.<sup>12</sup> But given the

---

<sup>12</sup> “Crowding in” results from improved short term outcomes increasing confidence in the business sector, thus increasing the proclivity of firms to invest on the basis of any given profit expectations in an environment of fundamental uncertainty. See also Leamer (2007) for a recent rediscovery of the interplay between the housing cycle and business cycle in the US economy.

continued distressed state of the US housing market, the notion of a strong recovery led, in the first instance, by housing starts seems fanciful in the extreme.<sup>13</sup>

A final source of offsets that may yet prevent a future of secular stagnation is the public sector. The US central government is certainly better placed than the US household sector to engage in deficit spending.<sup>14</sup> To put the matter bluntly: current concern with a US national debt to income ratio in the vicinity of 100% appears absurd when it is recalled that at the start of the last boom – just as US households were about to engage in another surge in borrowing that would propel economic growth by further increasing their debt to income ratios – the two-thirds of US households with income below \$50,000 already had debt to income ratios of approximately 300% (Palley, 2002). The absurdity is only increased by the observation that the debt-servicing capabilities of households and central governments do not even bear comparison. An individual low-middle income US household must meet its debt servicing obligations from the income generated by relatively few, potentially insecure, jobs. The US central government, meanwhile, can draw on a highly diversified income stream – all tax revenues – *and* has the capacity to monetize its expenditures (i.e., obtain the means of exchange by creating money). Nevertheless, US government deficits and debts have created enormous political theatre since the initial fiscal response to the onset of the Great Recession. Moreover, the debacle of the Eurozone has only increased political opposition to public sector debt accumulation – despite the fact that there is simply no useful comparison to be made between the US economy on one hand and, on the other, peripheral, southern European

---

<sup>13</sup> It is unsettling to note that according to Cornwall (1971), a housing cycle that was in phase with the business cycle – with the result that housing starts were not a leading force in recovery – was characteristic of the US economy in the 1920s and '30s.

<sup>14</sup> See Cynamon and Fazzari (forthcoming(b)) for more extensive discussion of this theme.

economies that, by virtue of the institutional design of the monetary union to which they belong, have no access to a government banker (see, for example, Palley, 2011). In short, in the current political climate in the US, we can only conclude that the political willingness necessary to use the state as an engine of aggregate demand generation simply does not exist.

## **5. Conclusions: what is to be done?**

It is clear from the prognoses above that confronting the legacy of the Great Recession poses major policy challenges for the US economy. Addressing the core real sector imbalance that has afflicted the aggregate demand generating process for the past thirty years requires, in the first instance, that we understand how this imbalance arose. According to authors such as Cornwall (1990) and Bowles et al (1990), the answer is to be found in the breakdown, during the early 1970s, of post-war labour market institutions that codified and enforced a “value sharing” norm of distributive justice, as a result of which real wage growth kept pace with productivity growth and the labour share of income remained buoyant. It follows that reconstruction of this value sharing norm of distributive justice would, in principle, re-balance the US aggregate demand generating process. But this is easier said than done. Changes in domestic labour law that, for example, make it easier for workers to collectively organize and hence bargain for the wage increases necessary to keep pace with productivity growth might (in principle) be easy to effect.<sup>15</sup> But phenomena such as global outsourcing and deindustrialization have fundamentally changed and complicated the US industrial relations landscape since the

---

<sup>15</sup> See Block et al (1996) on the role of changes in labour law in contributing to the unraveling of the original post-war value sharing norm of distributive justice.

1970s.<sup>16</sup> Although it would be fatalistic to suggest that these new challenges cannot be surmounted (much less that they should not be addressed), the fact remains that addressing the real imbalance that afflicts the US economy at its source constitutes an enormous task.

An alternative would be for policy makers to address the problem indirectly, by seeking a post-tax fix through redistributive fiscal policy. This would involve increasing taxes on profit income and the “working rich” – in other words, on the “top incomes” analyzed by Atkinson et al (2011) and others – in order to make transfer payments towards low and middle income households. Whether these take the form of cash payments or payments in kind (through greater provision of public goods), their purpose would be to support the consumption aspirations of low and middle income households without the latter having to resort to another bout of unsustainable debt accumulation. But once again, the difficulties of executing this policy agenda cannot be underestimated. Explicitly redistributive fiscal policies of the sort contemplated here appear no more popular in the current US political climate than deficit-financed increases in public spending.

Even if the US is able to fix (or eventually grow out of) its financial imbalances and reform its financial sector to avoid repeating the lending excesses of the last boom, the real sector imbalance identified in this paper – real wages growing slower than productivity, which constitutes a structural flaw in the aggregate demand generating process – will continue to bedevil the US economy. As demonstrated in section 4, the

---

<sup>16</sup> The decline of unionization rates in the US is linked, in part, to the shift of employment away from manufacturing, the sector in which trade union organization has traditionally been strongest. See, for example, Bronfenbrenner (2000) and Davies and Vadlamannati (2011) on the adverse impact of globalization on US labour market institutions.

prognosis is poor if this real imbalance is not addressed. And as demonstrated above, the policy challenges involved in addressing the imbalance (both economic and political) are formidable. Although it is impossible to rule out the emergence of another aggregate demand “offset” that, at least temporarily, improves growth sufficiently to significantly lower unemployment, it is otherwise difficult to avoid the conclusion that the prospects for the US economy look bleak.

## References

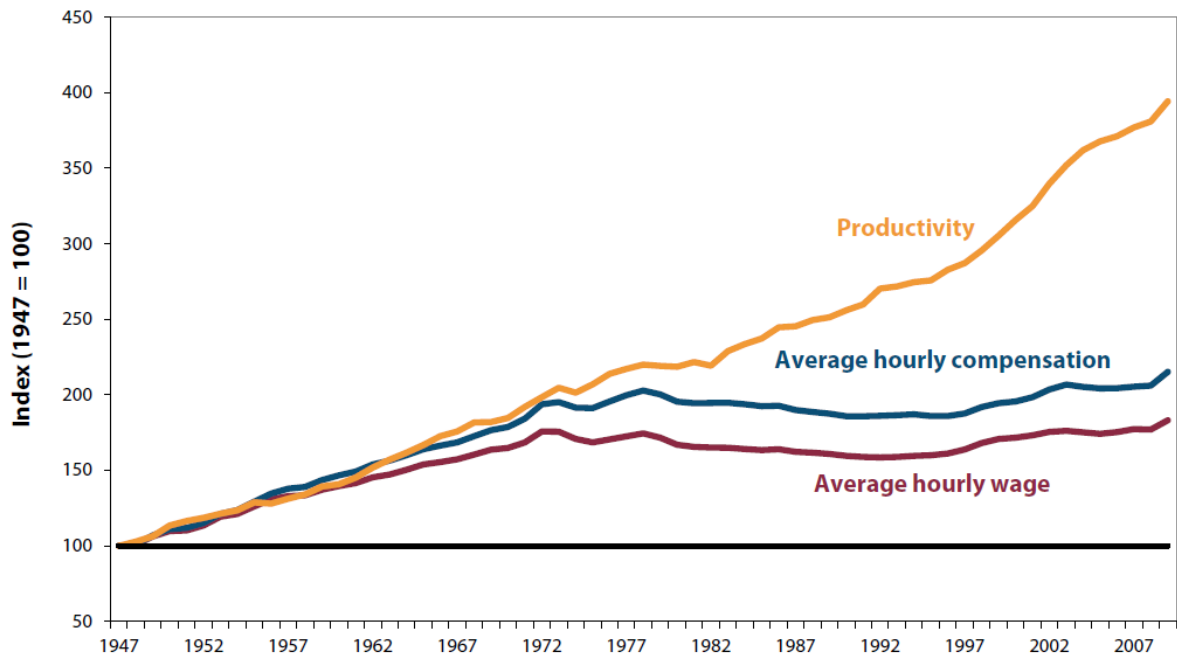
- Atkinson, A.B. (2009): Factor shares: the principal problem of political economy? in: *Oxford Review of Economic Policy*, 25, 3–16.
- Atkinson, A.B., T. Piketty and E. Saez (2011): Top incomes in the long run of history, in: *Journal of Economic Literature*, 49, 3-71.
- Baker, D. (forthcoming): Fiscal policy: the recent record and lessons for the future, in: Cynamon, B., Fazzari, S. and Setterfield, M. (eds), *After the Great Recession: Keynesian Perspectives on Prospects for Recovery and Growth* Cambridge: Cambridge University Press.
- Barba, A. and M. Pivetti (2009): Rising household debt: its causes and macroeconomic implications – a long-period analysis, in: *Cambridge Journal of Economics*, 33, 113-37.
- Bhaduri, A. and S. Marglin (1990): Unemployment and the real wage: the economic basis for contesting political ideologies, in: *Cambridge Journal of Economics*, 14, 375-393.
- Block, R.N., J. Beck and D.H. Kruger (1996): *Labor Law, Industrial Relations and Employee Choice*, Kalamazoo, MI: W.E. Upjohn Institute.
- Bluestone, B. and S. Rose (1997): Overworked and underemployed: unraveling an economic enigma, in: *The American Prospect*, 31, March-April.
- Bowles, S. , D. Gordon and T. Weisskopf (1990): *After the Waste Land*, Armonk, NY: M.E. Sharpe.
- Bronfenbrenner, K. (2000): Uneasy terrain: the impact of capital mobility on workers, wages and union organizing, Report to the US Trade Deficit Review Commission.
- Cornwall, J. (1971): *Growth and Stability in a Mature Economy*, London: Martin Robertson.
- Cornwall, J. (1990): *The Theory of Economic Breakdown*, Oxford: Basil Blackwell.
- Cynamon, B.Z. and S. M. Fazzari (2008): Household Debt in the Consumer Age: Source of Growth—Risk of Collapse, in: *Capitalism and Society*, 3, 2, Article 3.
- Cynamon, B.Z. and S. M. Fazzari (forthcoming(a)): The end of the consumer age, in: Cynamon, B., Fazzari, S. and Setterfield, M. (eds), *After the Great Recession: Keynesian Perspectives on Prospects for Recovery and Growth*, Cambridge: Cambridge University Press.

- Cynamon, B.Z. and S. M. Fazzari (forthcoming(b)): No need to panic about U.S. government deficits in: Cynamon, B., Fazzari, S. and Setterfield, M. (eds), *After the Great Recession: Keynesian Perspectives on Prospects for Recovery and Growth*, Cambridge: Cambridge University Press.
- Davies, R.B. and K.C. Vadlamannati (2011): A race to the bottom in labour standards? An empirical investigation, University College Dublin School of Economics working paper WP11/23.
- Davis, S.J. and J.A. Kahn (2008): Interpreting the great moderation: changes in the volatility of economic activity at the macro and micro levels, in: *Journal of Economic Perspectives*, 22, 155-80.
- Dutt, A.K. (2010): Consumption takes time: some implications for happiness, in: Vint, J., Metcalf, S., Kurz, H., Samuelson, P. and Salvadori, N. (eds), *Economic Theory and Economic Thought: Essays in Honor of Ian Steedman*, London: Routledge.
- Fleck, S., J. Glaser and S. Sprague (2011): The compensation-productivity gap: a visual essay, in: *Monthly Review*, 134, 57-69.
- Galí, J. and L. Gambetti (2009): On the sources of the Great Moderation, in: *American Economic Journal: Macroeconomics*, 1, 26-57.
- Glyn, A. (2009): Functional distribution and inequality, in: Salverda, W., Nolan, B. and Smeeding, T. M. (eds), *Oxford Handbook of Economic Inequality*, Oxford: Oxford University Press.
- Leamer, E.E. (2007): Housing IS the business cycle, NBER Working Paper No. 13428.
- Mohun, S. (2006): Distributive shares in the US economy, 1964-2001, in: *Cambridge Journal of Economics*, 30, 347-370.
- Palley, T.I. (2002): Economic contradictions coming home to roost? Does the US economy face a long-term aggregate demand generation problem?" in: *Journal of Post Keynesian Economics*, 25, 9-32.
- Palley, T.I. (2011): Euro lacks a government banker, not lender of last resort, in: *Financial Times Economists Forum*, December 9, 2011 (<http://blogs.ft.com/economistsforum/2011/12/the-euro-lacks-a-government-banker-not-a-lender-of-last-resort/>).
- Piketty, T. and E. Saez (2003): Income inequality in the United States, 1913-1998, in: *Quarterly Journal of Economics*, 118, 1-39.
- Pollin, R. (1997): The relevance of Hyman Minsky, in: *Challenge*, March/April, 75-94.

Schor, J.B. (1991): *The Overworked American: The Unexpected Decline of Leisure*, New York: Basic Books.

Wolff, E.N. and A. Zacharias (2009): Household wealth and the measurement of economic well-being in the United States, in: *Journal of Economic Inequality*, 7, 83-115.

**Figure 1:** Productivity and Real Hourly Wages and Compensation of Production and Non-Supervisory Workers, 1947-2009 (1947 = 100)



Source: EPI analysis of Bureau of Economic Analysis and Bureau of Labor Statistics data.