

The Economics of Wage-led Recovery: Analysis and Policy Recommendations

Abstract

The financial crisis and Great Recession have been followed by a jobs shortage crisis that most forecasts predict will persist for years given current policies. This paper argues for a wage-led recovery and growth program which is the only way to remedy the deep causes of the crisis and escape the jobs crisis.

Such a program is the polar opposite of the current policy orthodoxy, showing how much is at stake. Winning the argument for wage-led recovery will require winning the war of ideas about economics that has its roots going back to Keynes' challenge of classical macroeconomics in the 1920s and 1930s. That will involve showing how the financial crisis and Great Recession were the ultimate result of three decades of neoliberal policy, which produced wage stagnation by severing the wage productivity growth link and made asset price inflation and debt the engine of demand growth in place of wages; showing how wage-led policy resolves the current problem of global demand shortage without pricing out labor; and developing a detailed set of policy proposals that flow from these understandings.

The essence of a wage-led policy approach is to rebuild the link between wages and productivity growth, combined with expansionary macroeconomic policy that fills the current demand shortfall so as to push the economy on to a recovery path. Both sets of measures are necessary. Expansionary macro policy (i.e. fiscal stimulus and easy monetary policy) without rebuilding the wage mechanism will not produce sustainable recovery and may end in fiscal crisis. Rebuilding the wage mechanism without expansionary macro policy is likely to leave the economy stuck in the orbit of stagnation.

Keywords: wage-led economic policy, jobs crisis, stagnation.

Thomas Palley
New America Foundation
Mail@thomaspalley.com

July 2011

I The problem: from financial crisis to jobs crisis

The financial crisis of 2008 and the Great Recession have morphed into a jobs crisis that most forecasts predict will persist for years given current policies. This paper argues for a wage-led recovery and growth program which is the only way to remedy the deep causes of the crisis and escape the jobs crisis.

The International Labor Organization (ILO) recently documented the scale of the problem in its report *Global Employment Trends 2011: The Challenge of Jobless Recovery*.¹ Global unemployment in 2010 was 205 million, 27.6 million higher than in 2007. The global unemployment rate was 6.2 percent versus 5.6 percent in 2007. As shown in Table 1, the situation is even worse in the developed economies of the OECD where the unemployment rate averaged 8.3 percent in 2010 versus 5.7 percent in 2007. In the Euro area it was 9.9 percent versus 7.4 percent in 2007, and in the U.S. it was 9.7 percent versus 4.6 percent in 2007.

Table 1. Unemployment rates and output gaps in the OECD.

| | OECD | Euro area | U.S. |
|-------------------------------|-------------|------------------|-------------|
| Unemployment rate 2007 | 5.7% | 7.4% | 4.6% |
| Unemployment rate 2010 | 8.3% | 9.9% | 9.7% |
| Change 2007 - 2010 | 2.6% | 2.5% | 5.1% |
| | | | |
| Output gap 2007 | 1.7% | 1.4% | 1.3% |
| Output gap 2010 | -3.5% | -4.1% | -3.4% |
| Change 2007 - 2010 | -5.2% | -5.5% | -4.7% |

Source: OECD Economic Outlook, 2011.

¹ Issued by the International Labor Office, ILO, Geneva, 2011.

These patterns reflect the fact that the epicenter of the Great Recession was the U.S., and the after-shocks of the financial crisis have been felt most strongly in Europe. The developing world has gotten off relatively lightly compared to past global recessions, for two reasons. First, the commodity price boom has continued. Second, many emerging market economies had deep crises between 1997 and 2001 so that credit had already contracted and they were not exposed to the credit bust.

In of themselves these unemployment numbers would pose an enormous challenge. However, that challenge is amplified because the global economy appears to be experiencing “jobless recovery” in that GDP and world trade have recovered without a matching recovery in employment. This extends a pattern that first appeared in the U.S. economy after the recession of 1990.

II Wage stagnation as an obstacle to recovery

The bad labor market situation undermines the bargaining position of workers, and jobless recovery means real wages have considerably lagged productivity growth in the industrialized economies since 2009. After having been hit by unemployment, workers are therefore taking a second hit from suppressed wage growth that looks to persist into the future. That in turn threatens to slow and possibly undermine recovery.

The economics behind this threat is simple. The recession was caused by a tremendous adverse demand shock triggered by the financial crisis, the first effects of which were felt in the second half of 2007. Now, the industrialized economies are afflicted by a condition of severe demand shortage as evidenced by the large output gaps shown in Table 1. For the entire OECD area the output gap has jumped from 1.7 percent in 2007 to minus 3.5 percent in 2010. The important feature is not the absolute measure

of the gap (which can be quite contested according to concepts of full employment), but the swing which is equal to 5.2 percent of output. That swing is not contested and it is predicted continue over the next several years.

Wage stagnation aggravates the problem of demand shortage. First, the propensity to consume out of wage income exceeds the propensity to consume out of profit income because wage income is concentrated in lower income households that have a relatively higher propensity to consume.²

Second, wage stagnation promises to make the task of household sector debt deleveraging more difficult, thereby extending the duration of deleveraging, with its attendant negative impacts on consumption, aggregate demand, and output.³ In the U.S. this could contribute to a continuing high household mortgage foreclosure rate that will further impede the housing market's recovery.

Third, there is a danger that wage stagnation combined with continuing productivity growth could increase unemployment as demand fails to keep pace with output expansion. This fits with Alvin Hansen's [1932] technological theory of unemployment, developed in the Great Depression.

II Wage stagnation as a long-term structural problem

Not only does wage stagnation pose an immediate obstacle to economic recovery, it is also part of a deeper problem that lies at the root of the economic crisis. Failure to remedy the problem of wage stagnation will therefore leave unresolved the deep structural problems that caused the crisis and that risks locking the global economy locked into an orbit of stagnation. The danger is not that there will be renewed financial

² For a theoretical explanation of this consumption pattern see Palley [2010a].

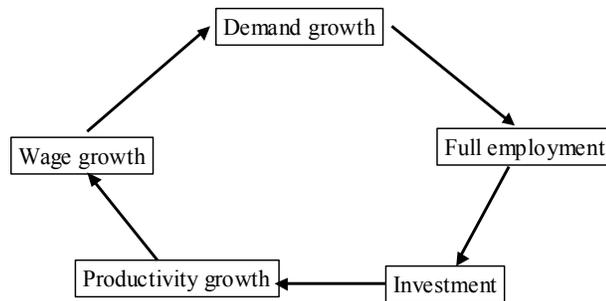
³ For an analysis of the economics of household deleveraging see Palley [2010b].

crisis, but rather the global economy will face a future of stagnation without shared prosperity.

This argument about the role of wage stagnation and income inequality in fermenting the crisis has been developed in Palley [2009a]. The argument is that the roots of the financial crisis trace back to a faulty neoliberal macroeconomic paradigm that was implemented globally after 1980, the fulcrum of implementation being the U.S. economy. The new paradigm instituted a new growth model that relied on debt and asset price inflation to drive demand in place of wage growth. However, this model slowly cannibalized itself by undermining income distribution and accumulating debt, so that the economy needed larger speculative bubbles to grow. That eventually created need for a huge bubble that only housing could provide, but when that bubble burst it pulled down the entire economy because of the massive debts incurred over the course of the bubble.

From 1945 - 75 the US economy was characterized by a “virtuous circle” Keynesian growth model built on full employment and wage growth tied to productivity growth. This model is illustrated in Figure 1 and its logic was as follows. Productivity growth drove wage growth, which fuelled demand growth and created full employment. That provided an incentive for investment, which then drove further productivity growth.

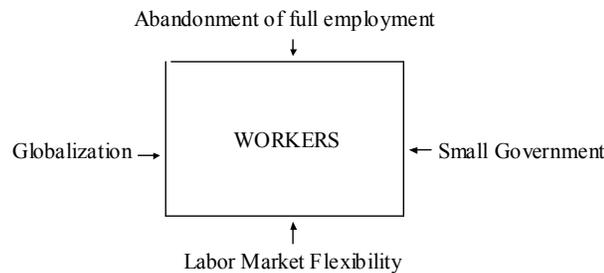
Figure 1. The 1945 – 80 virtuous circle growth model.



This virtuous circle model was visible in one form or another everywhere – in the U.S., Europe, Canada, Australia, Japan, Mexico, Brazil, Argentina and much of Latin America. However, after 1980 it was replaced by a neoliberal growth model the key features of which were: 1) Abandonment of the commitment to full employment, and 2) severing of the link between wages and productivity growth. Before 1980, wages were the engine of demand growth. After 1980, debt and asset price inflation became the engines of demand growth.

The effect of the new neoliberal model was to weaken the position of workers; strengthen the position of corporations; and uncuff financial markets to serve interests of financial and business elites. As illustrated in Figure 2, this new paradigm can be described as a neoliberal policy box that fences workers in and pressures them from all sides.

Figure 2. The neoliberal policy box.



Globalization puts workers in international competition via global production networks and trade, creating job insecurity and downward wage pressure. The “small government” agenda attacks the legitimacy of government, pushes persistently for deregulation regardless of dangers, opposes up-dating regulation, and places wage pressure on public sector workers. The labor market flexibility agenda attacks unions, labor market supports (e.g. the minimum wage), unemployment benefits, employment protections, and employee rights. Lastly, abandonment of full employment reflects changed monetary policy priorities, with concern with full employment being replaced by low inflation targeting.

The neoliberal policy box was implemented on a global scale, in both the North and the South. That multiplied its impact, and it is why the Washington Consensus that was enforced by the IMF and World Bank was so toxic. Reflecting the times, the model was adopted in one form or another in the U.S., Canada, Europe, Australia and Latin America.

Globalization is especially important for understanding the U.S., East Asian and Latin American experiences with the new paradigm. For the U.S., globalization initiated

a period of policy disregard for trade deficits combined with a willingness to shift manufacturing production to emerging market economies, first to Mexico and subsequently to China. For U.S. policymakers, globalization was not about creating a global market, but rather about creating a global production zone.

Emerging markets constituted the other side of the U.S. engagement with globalization and they focused on export-led growth. Mexico exemplifies the Latin American experience. Before 1980 Mexico had its own virtuous circle Keynesian growth model centered on import-substitution based industrialization. In the mid-1980s that model was abandoned and Mexico shifted to export oriented neoliberalism in which demand growth was to come from foreign direct investment in production facilities that would export to the U.S.

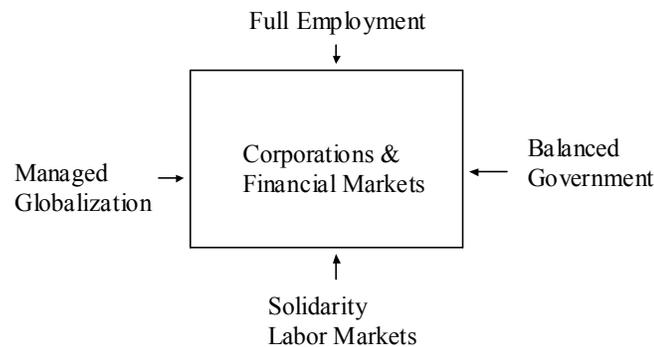
The problem now is the neoliberal growth model has imploded and is exhausted, which means it cannot be revived. Financial reform may stabilize the economy, but it does not help the economy escape the pull of stagnation resulting from the destruction of income and demand generation process and the burden of accumulated debts.

The logic of the Keynesian virtuous circle growth model and the metaphor of the neoliberal policy box are useful because they illustrate what has gone wrong. They are also indicative of what needs to be done to remedy the situation.

Continuing with the box metaphor, the challenge is to repack the box as illustrated in Figure 3. This involves: 1) Taking workers out and put corporations and financial markets in. 2) Replacing corporate globalization with managed globalization. 3) Restoring the commitment to full employment. 4) Replacing the neoliberal anti-government agenda with a social democratic agenda, and 5) Replacing neoliberal labor

market flexibility with solidarity based labor markets. All of these policies are discussed in greater detail below.

Figure 3. Repacking the neoliberal policy box.



There are several policy propositions that follow from the above analysis.

Proposition #1: The economic crisis is a crisis of demand. It is not a crisis of costs or profitability, and profits are at near record levels. That means policy that focuses on the supply-side and aims to increase profitability by squeezing wages risks deepening the problem by further worsening income inequality.

Proposition #2: The policy box metaphor highlights the multi-sided nature of the policy challenge. Policymakers need to implement a fully consistent set of policies that encapsulates the entirety of the economy because the economy is a system. Piecemeal policy will be far less effective. Over the past three decades wages and employment have increasingly been talked of exclusively in terms of labor market policy, reflecting the triumph of Friedman's [1968] natural rate hypothesis and the dismissal of Keynesian macroeconomics. The box makes clear that good wage and employment outcomes are the

product of coherent macroeconomic and microeconomic policy and rest on all dimensions of economic policy.

Corollary #1: Proposition one has important implications for the ILO. The argument that labor market outcomes depend exclusively on labor market policy has been used to limit the remit of the ILO to just labor market policy. The box shows why the ILO has a much broader policy interest, including a direct and immediate interest in the domestic and international policies of central banks and finance ministries. It also has an interest in the policies of the IMF and the World Bank because all of these policies affect wage and employment outcomes.

Proposition #3: Globalization means there is an international dimension to the policy problem that requires coordination. As with piecemeal policy, policy that is implemented on a purely national basis will be far less effective and may even be ineffective.

Proposition #4: The broad policy architecture entailed by a “repack the box” program fits all countries, but specific additional policies will be needed for particular countries and regions. Though there is considerable commonality of problems, countries have been integrated into the global economy differently. Addressing those differences requires additional country and region specific measures.

IV The economics of wage-led recovery

The Keynesian virtuous circle rests on the theory of wage-led economics which is fundamentally different from that guiding orthodox economics. Given that orthodoxy dominates policy thinking, this helps explain why policymakers have pushed policies that have promoted wage stagnation and why they are opposed to wage-led recovery.

Orthodox economics, which provides the basis for the neoliberal policy box, argues that increased real wages reduce employment. The argument rests on two assumptions: **A.1)** Firms are not demand constrained in goods markets. **A.2)** Firms' labor demand schedules are a negative function of the real wage so that higher real wages reduce labor demand. Given these assumptions, policies that increase real wages will reduce labor demand, employment and output.

Wage-led macroeconomics derives from Keynesian economics which rejects orthodox analysis. In the Keynesian view increased in real wages can increase employment. This logic is based on two alternative assumptions: **B.1)** Firms are constrained by shortage of demand in goods markets. **B.2)** An increase in the wage share of aggregate income that goes to worker households increases aggregate demand because worker households have a higher propensity to consume. Given this, increased wage incomes increase employment by relaxing the demand constraint on firms.

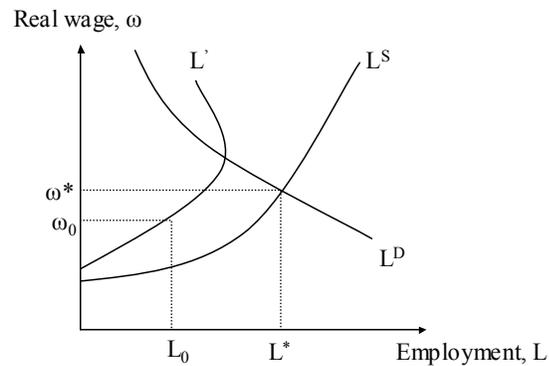
The logic of Keynesian wage-led economics is illustrated in Figure 4 which shows a conventional labor market diagram in which the labor demand schedule (L^D) is a negative function of the real wage, and labor supply (L^S) is a positive function of the real wage.⁴ Full employment occurs with the real wage – employment pair denoted $[L^*, \omega^*]$, corresponding to the intersection of the labor demand and supply schedules. Actual employment is constrained by the effective labor demand schedule denoted L' . This effective demand schedule is given by

$$(1) L' = f^1(D(\omega, A, X)) \quad f^1_D > 0, D_\omega < 0$$

⁴ Figure 4 is constructed using a conventional unconstrained labor demand schedule based on the marginal product of labor. In addition to questioning the claim that firms are unconstrained by demand in goods markets, Post Keynesian economists also contest marginal productivity theory's rendering of the unconstrained labor demand schedule.

f^1 = inverse of the aggregate production function, D = aggregate demand, ω = real wage, A = vector of exogenous variables affecting aggregate demand, and X = vector of policy variables affecting aggregate demand.

Figure 4. The economics of wage-led employment.



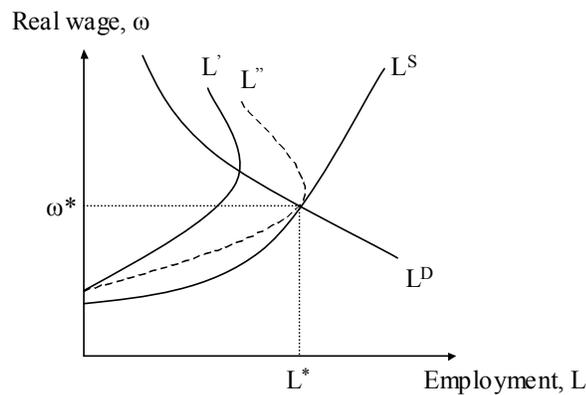
The effective labor demand schedule is backward bending, reflecting the fact that increases in the real wage initially increase demand by increasing consumption spending. However, increased real wages can also reduce the profit rate, causing reduced investment. At some point this latter effect may come to dominate causing the constrained labor demand schedule to bend back. Given an initial real wage of ω_0 , the policy challenge is to move the economy to full employment (L^*).

Current U.S. economic conditions have output demand being severely depressed for a number of reasons including high levels of household debt, low levels of household wealth owing to the house price collapse, and modest investment spending due to excess capacity. Consequently, the constrained labor demand curve is far to the left of full

employment and there is a need for policy to both raise wages and shift the demand curve right.⁵

The challenge of wage-led recovery is illustrated in Figure 5. The goal is to reach full employment (L^*). To do this policy must shift the effective demand constraint (L') to the right (L'') and increase wages to ω^* . This illustrates the multi-dimensional of wage-led recovery. One dimension is to raise wages (i.e. move along the effective labor demand schedule). A second dimension is policy measures to increase demand (i.e. shift the effective labor demand schedule right).

Figure 5. The wage-led recovery policy challenge.



The Keynesian economic logic of wage-led recovery is clear. However, there are two possible cases, and their consideration helps explain some of the political problem. Figure 6 shows the labor demand schedule, the effective labor demand schedule, and two iso-profit contours. This figure corresponds to the case of a strongly wage-led economy in which higher real wages increase employment and output, and they also increase

⁵ Figure 4 provides a static analysis describing the determination of employment and it illustrates how wage-led recovery works. Wage-led growth requires a dynamic analysis in which employment and output conditions impact investment, capital accumulation and growth.

business profits. By increasing real wages from ω_0 to ω_1 policymakers can raise employment from L_0 to L_1 . That shifts employment to a higher iso-profit contour ($\pi_1 > \pi_0$) so that business benefits. If business is enlightened, it should support such policy.

Figure 6. A strongly wage-led economy in which wage increases benefit both workers and business ($\pi_0 < \pi_1$).

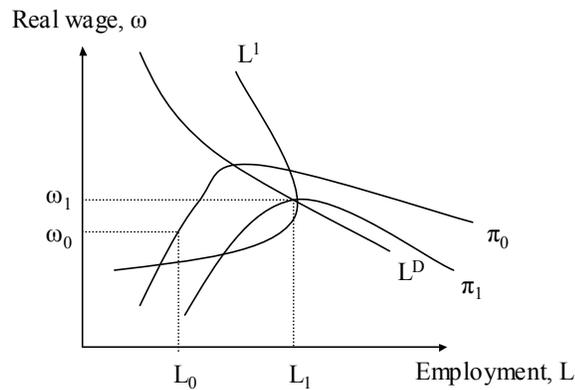
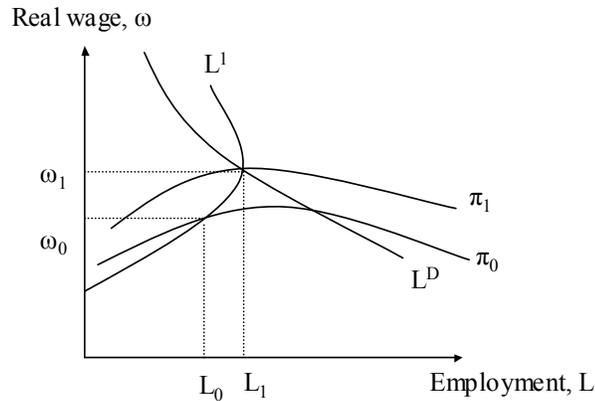


Figure 7 shows the case of a weakly wage-led economy. In this case, higher real wages increase employment but lower profits. Increasing real wages from ω_0 to ω_1 raises employment from L_0 to L_1 . However, it also shifts employment to a lower iso-profit contour ($\pi_1 < \pi_0$) so that business has a rational reason to oppose such policy because it lowers profits.

Figure 7. A weakly wage-led economy in which wage increases benefit workers but not business ($\pi_0 > \pi_1$).



A second obstacle to wage-led policy is public economic misunderstanding. The assumption of a negative relationship between real wages and employment is the core of orthodox neoliberal economics. That assumption is extremely appealing because of its apparent commonsensical logic when considered from an individual firm perspective. Individual workers know that if wages are too high at a particular firm that can render the firm uncompetitive. Lowering ω can increase the firm's competitiveness, and that logic is extrapolated to claim that lower wages everywhere will increase total employment.

Such logic may reflect a fallacy of composition. What is true for an individual firm may not hold for an industry or the economy as a whole. The reason is wage reductions at the sector level may reduce aggregate spending so that aggregate employment falls by more than the increase in employment in the sector with lowered wages and prices.

Box 1 describes an economic model for a two sector economy. Figure 8 provides a graphical analogue of this economic model which shows how sector wage reductions can reduce aggregate employment. A lower nominal wage in industry 1 lowers the price in industry 1 and increases demand and employment in industry 1. However, that makes good 2 relatively more expensive causing a shift inward of industry 2's demand schedule. The lower nominal wage also increases the debt burdens of workers in industry 1, which causes a net reduction in spending. That causes the demand schedules in both industry 1 and 2 to shift left. Finally, the reduction in the sector 1 real wage causes a reduction of the wage share in industry 1. That also causes a net reduction in total spending so that both sectors' demand schedules shift left. The net result is that lower real wages in sector 1, brought about by a lower nominal wage and higher mark-up, can reduce total employment even though it increases employment in sector 1. Moreover, the reduction would be even more pronounced if both sectors lowered real wages as that would produce additional negative nominal wage debt effects and negative wage share effects.

Box 1. The effect of wage reductions on employment in a two sector economy.

Consider an economy consisting of two symmetric sectors. Production in each sector is given by

$$(1) y_i = a_i N_i \quad i = 1, 2$$

y_i = i th sector output, a_i = labor productivity in the i th sector, and N_i = employment in the i th sector. The price in sector j is a mark-up over unit labor cost and given by

$$(2) p_i = [1 + m_i] w_i / a_i \quad i = 1, 2$$

p_i = price in industry i , m_i = mark-up in industry i , w_i = nominal wage in industry i , and a_i = average labor productivity in industry i which is assumed constant. The wage share in each sector is given by

$$(3) s_i = 1 / [1 + m_i] \quad i = 1, 2$$

The demand schedule and employment in each sector is given by

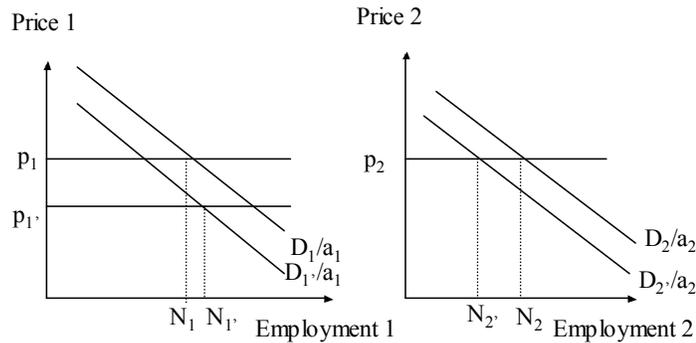
$$(4) D_i = D(p_i, p_j, w_i, w_j, s_i, s_j, N_1, N_2) \quad i = 1, 2, j = 1, 2 \text{ } i \text{ not equal } j.$$

$$D_{p_i} > 0, D_{p_j} < 0, |D_{p_i}| = |D_{p_j}|, D_{w_i} = D_{w_j} > 0, D_{s_i} = D_{s_j} > 0, D_{N_i} = D_{N_j} > 0.$$

$$(5) N_i = D_i / a_i$$

A lower price level increases industry demand but it lowers demand in the other by an equal amount. A lower nominal wage lowers demand because workers are assumed to be debtors. Lower nominal wages increase the burden of their debt, effectively transferring wealth to creditors who are assumed to have a lower propensity to consume. An increase in the wage share increases demand because it transfers income from capitalists to workers, and workers are assumed to have a higher propensity to consume that outweighs the reduction in capitalists' consumption and any reduction in investment.

Figure 8. The effect of wage reductions in a two sector economy.



A third obstacle to wage-led policy is the effects of globalization. The logic of the above two sector model carries over to the international economy. Globalization has made economies more open, measured in terms of exports and imports as a share of GDP. In such conditions, wage reductions in one country may make that country more

competitive and increase its employment. However, for the global economy as a whole it can reduce employment by reducing global aggregate demand.

Such outcomes resonate with Joan Robinson’s [1947] construct of “beggar-thy-neighbor” macroeconomic policy. Globalization aggravates this problem by encouraging countries to go down the sub-optimal path of the wage reduction because each believes it can gain global market share. However, when all pursue such a strategy, all may lose.

Such an outcome corresponds to a prisoner’s dilemma and it is illustrated in Figure 9. Each country has an incentive to cut wages, hoping the other raises wages. As a result they all cut, but that produces the worst payoff. The best payoff is if both countries raise wages, but that requires coordinated policy. This illustrates how globalization makes wage-led policy more difficult. A policy that would have worked before on a go-it-alone national basis now needs international co-ordination to succeed. That is a hard task and a high hurdle.

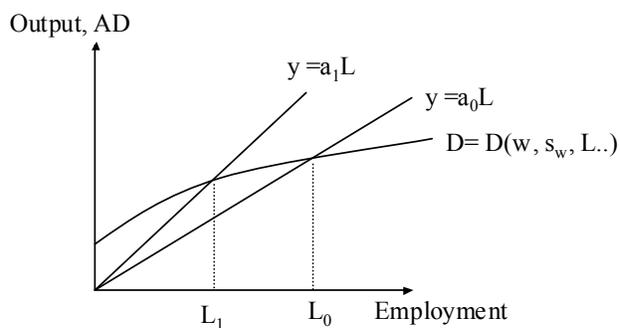
Figure 9. The prisoner’s dilemma and international economic cooperation.

| | | Country B | |
|-----------|-------------|-----------|-------------|
| | | Cut wages | Raise wages |
| Country A | Cut wages | -5, -5 | 10, -10 |
| | Raise wages | -10, 10 | 5, 5 |

Lastly, the simple model of wage-led recovery can be used to illustrate how wage stagnation risks creating unemployment in the presence of technological advance. This is

the problem of technological unemployment identified by Alvin Hansen [1932] which was mentioned earlier. It is illustrated in Figure 10. Improved technology increases labor productivity ($a_0 < a_1$) and rotates the production function ($y = aL$) counter-clockwise. If the real wage – productivity link is severed then aggregate demand may fail to increase. The result is reduced employment because less labor is needed to meet existing demand. The reduction in employment then triggers additional negative Keynesian expenditure multiplier effects on output and employment.

Figure 10. Alvin Hansen technological unemployment ($a_1 > a_0$).



V Empirical support for wage-led economics

The real wage – employment relation is central to macroeconomics and macroeconomic policy. Orthodox theory says that relationship is unambiguously negative. Keynesian theory says it can be positive. The evidence supports a Keynesian view.

One critical source of support is the literature on employment effects of minimum wage increases. This literature is traditionally interpreted through the lens of microeconomics as the study of a particular policy. However, it is in fact one of the most significant tests of orthodox macroeconomic theory.

An increase in the minimum wage is a form of controlled experiment, as close as economics is ever likely to produce. Orthodox theory predicts that an increase in the price of labor should unambiguously reduce employment. Yet the results from minimum wage event studies are at best ambiguous on this matter. Where there are findings of negative effects they tend to be small quantitatively. Moreover, the seminal work of Card and Krueger [1994] actually reports positive effects – a straight plain contradiction of orthodox theory.

A second line of work that is of theoretical and policy significance is the work on employment effects of labor market institutions (such as unions, the minimum wage, employment protections, etc.). This line of research was kicked off by Nickell [1997] who ran pooled cross-country regressions and reported results largely consistent with orthodox thinking. However, Palley [2004a] reported fixed effect time series regressions that incorporated macroeconomic policy variables (particularly the interest rate) and controlled for country trade openness. Those findings overthrow the conventional wisdom almost entirely. Unions, unemployment insurance benefit duration, and employment protections do not increase unemployment. Coordinated wage bargaining reduces unemployment. Macroeconomic factors, such as the real interest rate and rate of disinflation (which proxies the macro policy stance), are the overwhelming determinants

of the unemployment rate. These findings have been largely corroborated by Howell et al. [2007] and Stockhammer and Klar [2011].

A third line of empirical research supportive of the wage-led Keynesian paradigm comes from the wage-led versus profit-led growth literature. This is a macroeconomic literature that estimates single equation reduced form models and seeks to identify the effects of changes in the functional distribution of income on consumption, investment, and output growth. For most economies the finding is they are wage-led so that a shift in the distribution of income toward wages has a positive effect on growth.

A downside of the literature is it uses simple single equation models that may be prone to omitted variables bias. However, to the extent that the models do not control for economic openness, they do not control for demand leakage effects and that may tend to create a negative bias against finding economies are wage-led. Interestingly, Hein and Vogel [2008] report that the medium and large economies (Germany, France, U.S.A. and U.K.) are wage-led but smaller open economies (e.g. Netherlands and Austria) are profit-led. This finding may reflect that smaller economies have a more difficult time capturing the full benefits of wage increases, which instead spill out for the benefit of other economies as discussed above. However, the fact that large economies are found to be wage-led is supportive of the theoretical and policy case for wage-led economics.

VI A policy framework for wage-led recovery and growth

The above examination of the theoretical foundations of wage-led macroeconomic policy explains the aggregate demand benefits of higher wages, as well as pointing to the need for demand stimulus at a time of demand shortage. It also highlights the need for international policy coordination for wage-led recovery and

growth policy to work in an era of globalization. The Keynesian virtuous circle - neoliberal policy box explanation of the Great Recession highlights the problem of the ruptured link between productivity growth and real wage growth.

Viewed in this light, policymakers have both a conventional short-run demand management problem and a long-run structural rebuilding problem. The short-run task is to stimulate demand so as to fill the demand shortfall and establish recovery velocity. The long-run task is to rebuild the income and demand generation process by restoring the wage – productivity growth link. Moreover, these short-run and long-run policies must be pursued at both the national and international level in consistent fashion.

In past recessions policymakers merely had to jumpstart the economy. In the current recession, wage-led recovery requires policymakers simultaneously jumpstart the economy and rebuild the system. One without the other will fail. Stimulus without structural rebuilding will mean recovery is unsustainable, while structural rebuilding without stimulus will leave the economy trapped in stagnation and unable to achieve recovery velocity.

Wage-led recovery combines macroeconomic stimulus with structural reform, particularly regarding labor markets. Figure 11 illustrates the macro – micro policy mix required for wage-led recovery and contrasts it with the mix being recommended by orthodox policy.

Figure 11. Wage-led vs. orthodox policy mix.

| | | Micro policy | |
|--------------|----------------|----------------------|--------------------------|
| | | Rebuild labor market | Flexibilize labor market |
| Macro policy | Expansionary | Wage-led policy | |
| | Contractionary | | Orthodox policy |

From a wage-led perspective, at the micro level there is need to rebuild labor market institutions to reconnect wages and productivity growth. At the macro level there is need to maintain an expansionary stance to offset the shortfall of private sector demand relative to potential output.

This contrasts with the orthodox perspective which argues for further labor market deregulation, fiscal austerity and meaningful tightening of monetary policy. The claim is further labor market flexibility is needed because the financial crisis is the equivalent of a shock that has increased structural unemployment, and the orthodox response to such unemployment is to deregulate and flexibilize labor markets by weakening worker bargaining power and protections (see for example the OECD Jobs study 1994). Fiscal austerity is needed to reduce budgets in light of growing public sector debts that are argued to portend future fiscal crisis. Lastly, meaningful tightening of monetary policy is needed to head off incipient inflation. The orthodox policy program is therefore the polar opposite of a wage-led recovery program.

VI.A The national dimension of wage-led economic policy

With regard to employment, orthodox economics tends to focus exclusively on labor market policy. Keynesian economics emphasizes the demand dimension of the employment problem, which means policy extends far beyond just labor market concerns. The key elements of a national Keynesian wage-led growth program are as follows:

1. Rebuild the wage – productivity growth link.

Rebuilding the wage – productivity growth link is the cornerstone of a wage-led program. This requires increasing union density and union wage bargaining coverage, and implementing and maintaining a robust minimum wage. The significance of the empirical work on labor market institutions [Palley, 2004a; Howell et al., 2007; Stockhammer and Klar, 2011] is that it rejects claims that such measures increase unemployment. Instead, their impact is on the distribution of income.

The minimum wage is also important. The evidence shows it may even positively impact employment [Card and Krueger, 1994] and U.S. data show it has a positive ripple effect on wages that reaches through the second decile of the wage distribution [Palley, 1998; Lim, 2006].

2. Substantial, smart, sustained fiscal stimulus.

There is need for fiscal stimulus that should be “substantial, smart, and sustained” because of the extent of the private sector demand shortfall indicated by output gaps. A significant proportion of the budget deficit will be closed automatically as recovery takes hold. Where structural deficit measures indicate risk of unsustainable deficits, this is often due to specific factors (e.g. medical costs in the U.S.) or lowered tax rates rather than surging government expenditures.

The need for fiscal stimulus provides an opportunity for public investment spending that can create jobs, increase future productivity, and increase quality of life. In the U.S. federal transfers to state and local governments can help avoid a new wave of job losses centered on state and local government. This may also hold for other countries.

To the extent that tax cuts are used to stimulate demand they should be targeted at low- and middle-income families who have a higher propensity to consume. However, increasing after-tax wage income is not a solution for the underlying pre-tax wage problem.

Most importantly, policy makers must resist premature fiscal austerity which will only aggravate the structural demand shortage, thereby undermining growth and worsening the budget outlook. To the extent there are long-term budget deficit concerns, the solution is to grow the economy, not to contract it. Where the long term fiscal outlook is problematic due to specific causes such as excessive medical costs and medical inflation, the solution is to improve efficiency in the production of medical services, and not to impose generalized fiscal austerity. The latter will only deepen the slump and further stress tax revenues, without fixing the underlying budgetary problem.

3. Refocus monetary policy on full employment

Monetary policy also has an important role to play, both with regard to recovery and maintaining the wage – productivity growth link. Expansionary monetary policy is needed to stimulate demand. However, longer term policy must recommit to full employment which is a necessary background for workers to have wage bargaining power.

As part of realigning monetary policy, policymakers should abandon the theory of the natural rate of unemployment [Friedman, 1968] that asserts monetary policy has no impact on employment outcomes, and thereby encourages a focus on ultra-low inflation targeting. There is a Phillips curve trade-off between inflation and unemployment because inflation helps grease the wheels of sector labor market adjustment. That trade-off is backward bending [Akerlof et al, 2000; Palley, 2003a] and policymakers should aim for an inflation target consistent with the minimum sustainable rate of unemployment. That inflation rate is at the inflection point where the Phillips curve bends backwards. In the U.S. it is probably associated with an inflation rate of 3 – 5 percent.

With regard to emerging market and developing economies, the Phillips curve is a less useful construct. Instead, there appears to be a trade-off between inflation and growth. Anwar and Islam [2011] report a non-linear trade-off whereby inflation has a diminishing positive effect on growth up to 8 percent inflation; no effect on growth between 8 and 17 percent; and an increasing negative effect on growth above 17 percent inflation. The implication is that policymakers in most emerging market and developing economies are targeting, either explicitly or implicitly, too low an inflation rate.

4. Financial market regulation.

Part of the agenda of taking workers out of the box is to put financial markets and corporations back in. That requires both financial regulation and strengthened corporate governance, policy features that are not conventionally identified as part of a wage-led economics.

The financial crisis revealed the instability of the system created over the past thirty years and there are good reasons for rebuilding financial regulation to restore

economic stability. Working families have a direct interest in this because they incur the costs of crisis via job loss and ensuing economic stagnation. However, there are additional reasons for financial regulation because finance should serve the needs of the real economy.

With regard to specifics, financial market regulation should limit speculation, increase transparency, and enable central banks to address asset price bubbles and preserve financial stability. To this end, market participants should be subject position limits and margin requirements when deemed appropriate. In the absence of a compelling case otherwise, all financial trading should be channeled through clearing houses. Financial institutions should be also subject to balance sheet requirements that can be adjusted at the discretion of policymakers. Such requirements include liquidity requirements, capital requirements, and leverage restrictions. Financial transactions taxes also have a place, both as a means of limiting destabilizing speculation and of raising revenue.

Finally, monetary authorities should implement asset based reserve requirements (ABRR) that can facilitate monetary policy and growth [Palley, 2003b, 2004b]. Trying to manage the economy with just interest rates and an inflation target leaves the economy exposed to financial excess. That is the lesson of the last decade. Inflation targeting must therefore be supplemented by quantitative balance sheet controls implemented via ABRR.

ABRR extend margin requirements to a wide array of assets held by financial institutions. Financial firms have to hold reserves against different classes of assets and

the regulatory authority sets adjustable reserve requirements on the basis of its concerns with each asset class.

ABRR provide a new set of policy instruments that can target specific financial market excess, leaving interest rate policy free to manage the overall macroeconomic situation. They can help prevent asset bubbles by targeting over-heated asset categories, and they are particularly good for targeting house price bubbles since they target issue of new mortgages. They can also be used to encourage investment in areas deemed strategically or socially important by imposing low (or even negative) reserve requirements on finance directed to such activities. For all of these reasons they should be part of the monetary and regulatory policy tool kit serving a wage-led growth program.

5. Reforming corporate governance and accountability

With regard to corporate governance there is need to restrict managerial power which has been used to extract excessive managerial pay and has twisted corporations to adopt excessively short term horizons. That tends to favor financial engineering over real investment, which is bad for growth, jobs and wages.

With regard to specifics, policy should seek to enhance shareholder control; use the tax system to discourage excessive managerial pay and short-term incentive pay that promotes speculation and myopic business management; limit unproductive corporate financial engineering (particularly stock buy-backs); and provide representation for other stakeholders in corporations.

Corporations are the fulcrum of economic activity and are therefore critical for wages and employment. Though not generally perceived in this way, that makes their governance critical for wage-led policy. The right to incorporate and the benefit of

limited liability are constructs of law. The laws behind these rights are intended to advance public welfare, which means corporate activity should advance the public's welfare. That should be the litmus test for issues regarding corporate governance and accountability.

6. Tax reform

Tax reform can also contribute to a wage-led recovery, particularly in the U.S. One contribution, discussed earlier in connection with fiscal policy, is to ensure any tax relief strengthens aggregate demand at minimum budget cost. A second contribution is to restore tax progressivity that has been eroded over the last three decades. In addition to adjusting income tax rates, this can be done by reducing tax expenditures that often have a regressive incidence, and by eliminating preferential treatment given to capital income (dividends and capital gains) relative to labor income (wages and salaries).

A third contribution is to abolish “job taxes” that link taxes to jobs. In the U.S., that means finding other ways of paying for social security and unemployment insurance in place of wage taxes and mandated employer contribution. It also means changing the U.S. system of health care financing which is structured as a job cost, albeit privately paid for under the current system.

Lastly, corporate tax reform is important. Tax codes should be reformed to eliminate tax provisions (such as deferral of taxes on foreign profits) that promote off-shoring jobs and investment. There is also a case for scaling back corporate income taxes, but only as part of a package that increases tax progressivity and eliminates tax favoritism for capital income. Taxing corporations gives them an incentive to move: instead, government should tax the owners who receive the profits.

7. Trade deficits and external balance

Another critical area for policy is trade deficits and external balance, which is particularly relevant for the U.S. economy. This is implicitly an international problem as one country's surplus is another's deficit.

Since the employment effects of trade deficits are felt nationally trade deficits have significant ramifications for the viability of wage-led policy. If trade deficits are too large they risk undermining wage-led recovery. This can be understood through the metaphor of a bathtub. Aggregate demand, via higher wages and expansionary fiscal and monetary stimulus, is being poured into the tub. However, that demand is leaking out through the plughole of the trade deficit. Moreover, it is not just demand that leaks out, but also jobs and investment due to off-shoring.

The current global trade imbalance problem is due to exchange rate failure, the pursuit of export-led growth strategies, and the dynamic of corporate globalization. That means it must be resolved by internationally coordinated policy, and how to do so is discussed below. However, three cautions are in order. First, if it is not resolved national wage-led policies are likely to be undermined for the reasons discussed in section IV. Second, since one country's trade deficit is another's surplus, some countries benefit from trade deficits. That makes the problem inherently conflictive. Third, because of the negative national economic effects of large trade deficits, failure to address the problem will promote tendencies to international economic conflict as evidenced by recent language about "currency wars".⁶

⁶ Brazilian Finance Minister Guido Mantega was quoted in *The Financial Times* on September 27, 2010 as saying "We are in the midst of an international currency war, a general weakening of currency." His comments reflect concern at the upward appreciation of the Brazilian Real caused by China's pegged

VI.B Globalization and the international dimension of wage-led economic policy

In the pre-globalization era it might have been possible for countries to pursue “go-it-alone” national wage-led recovery and growth programs. However, in the era of globalization those possibilities are greatly reduced because of increased spending leakages on imports, financial leakages, investment leakages via foreign direct investment, and job leakages via off-shoring of production. That means national wage-led recovery and growth strategies must be accompanied by an international strategy that reinforces national policy.

Both the neoliberal policy box and the theoretical analysis of wage-led economics emphasize the significance of globalization, which has been a critical development of the past thirty years. One effect of globalization has been to intensify wage competition by putting workers in international competition. Initially, this was perceived as a North – South issue, but there is now growing recognition that it is a South – South concern as emerging market economies compete for export shares and foreign direct investment [Blecker, 2000; Palley, 2003c; Blecker and Razmi, 2010].

A second effect of globalization has been the creation of a global pattern of trade and production marked by massive North – South trade imbalance, excessive U.S. consumption, and export-led growth in the South. Neoliberal globalization has therefore integrated economies in a particular way that has further amplified wage competition and also produced unsustainable trade balances. China has played a key role in this new structure, and in some ways it might even be more accurate to talk of the current structure as one of “China-centric globalization”.

exchange rate, the Federal Reserve’s policy of quantitative easing, and the structural problems afflicting the euro.

A third effect of globalization concerns policy, and here there have been two impacts. First, globalization has rendered national policies that were previously effective feasible, less effective and less feasible. Second, it has aggravated adverse policy competition between countries by creating prisoner's dilemma structures of the sort discussed earlier in section IV.

The implication is there is need for international economic policy reform aimed at reversing all of these features. That policy should diminish wage competition, restore sustainable trade balance, create space for national policy, and promote policy coordination among countries. Absent that, national wage-led growth strategies will be much less effective, and governments may be discouraged from even trying them.

1. Reforming the architecture of globalization

The starting point for international reform that promotes wage-led growth is the global financial architecture. The real economy cannot work without finance, as the crisis showed. However, different financial structures produce different real economic outcomes. The current neoliberal designed financial architecture (of unmanaged exchange rates and unrestricted financial capital flows) has promoted the neoliberal version of globalization with its attendant effects of wage competition, unsustainable trade balances, and policy competition. That calls for a new financial architecture.

A first international financial reform concerns exchange rates. The current system of unmanaged exchange rates has proved incapable of delivering sustainable current account balances across countries. It has also proved susceptible to exchange rate manipulation by countries seeking to enhance their international competitiveness, the poster child being China. Now, the system is degenerating further as more and more

countries seek to prevent their currencies from appreciating, which threatens destabilizing competitive devaluation.

The solution is to adopt a system of globally managed exchange rates that targets approximate current account balance. The exact details of the system involve technicalities beyond the scope of this paper but the goal is clear - an exchange rate mechanism that fosters sustainable trade balances.⁷ That includes reasonably sized deficits, but not trade imbalances of the magnitude seen over the past fifteen years.

In addition to this structural challenge, there is an immediate short-run challenge which is to get China (by persuasion or sanction) to significantly revalue its dollar pegged exchange rate. China's exchange rate policy is exerting a deflationary impact on the entire global economy by draining demand from other economies, which hampers their recovery and growth. It also prompts other emerging market economies (particularly in East Asia and South-East Asia) to under-value their exchange rates to stay competitive with China and avoid loss of exports, loss of foreign direct investment, and deindustrialization. To be effective, global wage-led policy needs both system change and the cooperation of China.

A second financial reform concerns capital flows and capital controls – or what the IMF is now terming “capital flow management techniques”. Unstable capital flows were a critical ingredient in the financial crises of the 1990s and early 2000s, and that problem remains unresolved. Indeed, one reason for the current crisis is the earlier experience of unstable capital flows drove many countries to pursue export-led growth policies that produced trade surpluses and enabled accumulation of foreign reserves. This

⁷ See Palley [2007, p.38 – 39] for the details of a proposed system of exchange rate management.

speaks to the need for making capital controls a legitimate and standard part of the policy tool chest.⁸

2. Labor standards

A second area of reform concerns the need for global labor standards. The global economy is beset by demand shortage and a big part of that demand shortage is the worsened income distribution of the past thirty years. Part of that worsening is attributable to globalization that has placed workers in international competition without labor market protections. This has put downward pressure on wages everywhere, undermining wage development in both the mature industrialized economies and the emerging market economies. The clear implication is solving the demand shortage and encouraging a shift to domestic demand-led growth needs a new structure of competition that allows wages to rise with productivity. Strict globally enforced labor standards are central to this required new structure of competition.⁹

3. A global minimum wage system

Another measure that can remedy the global demand shortage and rebuild the connection between wages and productivity growth is a global minimum wage system. That does not mean imposing U.S. or European minimum wages in developing countries. It does mean establishing a global set of rules for setting country minimum wages.

The minimum wage is a vital policy tool that provides a floor to wages. This floor reduces downward pressure on wages, and it also creates a rebound ripple effect that raises all wages in the bottom two deciles of the wage spectrum [Palley, 1998; Wicks-

⁸ Palley [2009b] provides overview of the economic rationale for capital controls. Palley [2005] examines the economic theory behind Chilean-style capital controls based on unremunerated reserve requirements, and Palley [1999, 2001] examines the economics of the Tobin tax on foreign exchange dealings.

⁹ For a comprehensive discussion of the economics of labor standards see Palley [2004c].

Lim, 2006]. Furthermore, it compresses wages at the bottom of the wage spectrum, thereby helping reduce inequality. Most importantly, an appropriately designed minimum wage can help connect wages and productivity growth, which is critical for building a sustainable demand generation process.

Traditionally, minimum wage systems have operated by setting a fixed wage that is periodically adjusted to take account of inflation and other changing circumstances. Such an approach is fundamentally flawed and inappropriate for the global economy. It is flawed because the minimum wage is always playing catch-up, and it is inappropriate because the system is difficult to generalize across countries.

Instead, countries should set a minimum wage that is a fixed percent (say fifty percent) of their median wage - which is the wage at which half of workers are paid more and half are paid less. This design has several advantages. First, the minimum wage will automatically rise with the median wage, creating a true floor that moves with the economy. If the median wage rises with productivity growth, the minimum wage will also rise with productivity growth.

Second, since the minimum wage is set by reference to the local median wage, it is set by reference to local economic conditions and reflects what a country can bear. Moreover, since all countries are bound by the same rule, all are treated equally.

Third, if countries want a higher minimum wage they are free to set one. The global minimum wage system would only set a floor: it would not set a ceiling.

Fourth, countries would also be free to set regional minimum wages within each country. Thus, a country like Germany that has higher unemployment in the former East Germany and lower unemployment in the former West Germany could set two minimum

wages: one for former East Germany, and one for former West Germany. The only requirement would be that the regional minimum wage be greater than or equal to fifty percent of the regional median wage. Such a system of regional minimum wages would introduce additional flexibility that recognizes wages and living costs vary within countries as well as across countries. This enables the minimum wage system to avoid the danger of over-pricing labor, while still retaining the demand side benefits a minimum wage confers by improving income distribution and helping tie wages to productivity growth.

Finally, a global minimum wage system would also confer significant political benefits by cementing understanding of the need for global labor market rules and showing they are feasible. Just as globalization demands global trade rules for goods and services and global financial rules for financial markets, so too labor markets need global rules.

4. Reform of trade agreements

A fourth and final international policy area in need of reform concerns trade agreements and their impact on national policy space. Here, the problem is the gradual stripping away of policy space via imposition of limits on national policy sovereignty. One area where policy has been weakened is intellectual property rights. A second area concerns the right of international investors to sue governments in international arbitration panels. These and other restrictions on sovereign policy need to be reversed, and the architecture of future trade agreements should incline to increase national policy space rather than shrink it.

VI.c National and international policy: do it all

Talk of wage-led policy too easily leads to a focus on just labor markets, which is incorrect. The economy is a system and if wage-led policy is to work it must be situated in a system and context that enables it to work. That means policymakers must “do it all” and adopt the full set of policies that “repacks the box”. Moreover, they must do it all at both the national and international levels.

Strategically, there are two tasks. First, there is need to jump-start the economy, which is the rationale for expansionary policy. Second, the economy must be restructured to make recovery sustainable, which is why a wage-led growth program is essential. Piecemeal policy implementation will be far less successful, especially in a world of globalization. That speaks to the scale of the political problem. Not only is there need to win the fight at the national level, there is need to win it at the international level. That makes the problem daunting. Considered alone, the economic policy challenge is huge. However, on top of that there is the political challenge.

VII Conclusion

The financial crisis and Great Recession have been followed by a job shortage crisis that most forecasts predict will persist for years given current policies. This paper has argued for a wage-led recovery and growth program, which is the only way to remedy the deep causes of the crisis and escape the jobs crisis.

Such a program is the polar opposite of the current policy orthodoxy, showing how much is at stake. Winning the argument for wage-led recovery will require winning the war of ideas about economics that has its roots going back to Keynes’ challenge of classical macroeconomics in the 1920s and 1930s. That will involve showing how the financial crisis and Great Recession were the ultimate result of three decades of

neoliberal policy, which produced wage stagnation by severing the wage productivity growth link and made asset price inflation and debt the engine of demand growth in place of wages; showing how wage-led policy resolves the current problem of global demand shortage without pricing out labor; and developing a detailed set of policy proposals that flow from these understandings.

The bedrock of a wage-led policy approach is to rebuild the link between wages and productivity growth. That requires reconfiguring national and international economic policy so as to change the character of competition and restore worker bargaining power. This must be accompanied by expansionary macroeconomic policy that fills the current demand shortfall so as to push the economy on to a recovery path. Both sets of measures are necessary. Expansionary macro policy (i.e. fiscal stimulus and easy monetary policy) without restoration of the wage – productivity link will not produce sustainable recovery and may end in fiscal crisis. Restoration of the wage mechanism without expansionary macro policy is likely to leave the economy stuck in the orbit of stagnation.

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