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**Working Paper**

## Going from a low to a high employment equilibrium

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# Working Paper

Marc Lavoie<sup>1</sup>, Eckhard Hein<sup>2</sup>

## Going from a low to a high employment equilibrium<sup>3</sup>

### Abstract

This paper presents an extensive, but non-formalized, critique of the concept of the non-accelerating inflation rate of unemployment (NAIRU) and all similar concepts such as the steady-inflation rate of capacity utilization (SIRCU) which are used by mainstream economists to argue that there is no alternative, and hence that labour markets must be made more flexible while governments must abstain from engaging in expansionary fiscal policies except under exceptional circumstances. This is followed by the presentation of an alternative approach of the labour market, based on a more realistic view of the shape of the unit costs of firms, which argues that employment is essentially determined by the extent of sales in the goods market rather than by some profit-maximization constraint, and that higher real wages will normally generate a rise in domestic aggregate demand and hence a rise in employment. The paper ends with a discussion of the implications of such a view for wage bargaining and macroeconomic policies. What is advocated here is a wage-led growth strategy.

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<sup>3</sup> This paper is a slightly modified version of the chapter that was commissioned for the book edited by Tony Johansson. Along with other chapters criticizing the concept of the NAIRU, both from a theoretical and an empirical point of view, it will be published in Swedish in the book *Wage Bargaining Beyond the NAIRU*, the target audience of which is economists and leaders of Swedish trade unions. We thank Tony Johansson for his highly useful comments.

**Marc Lavoie and Eckhard Hein<sup>1</sup>**

## **Going from a low to a high employment equilibrium<sup>2</sup>**

### ***Introduction***

The leitmotiv of politicians and of mainstream economists today is that ‘there is no alternative’ (TINA) to labour market deregulation, wage moderation coupled with austerity policies, when it comes to improving employment and economic activity in the long run. The purpose of the present chapter is to recall that alternative policies do exist, based on an alternative to neoclassical economic theory – post-Keynesian economics. Post-Keynesian economics is one among several heterodox schools of thought in economics that are keeping alive the insights of economists whose ideas cannot necessarily be bottled up in a few equations, for instance the insights of Marx, Veblen, Keynes, Kalecki and Schumpeter. Although (and perhaps because) a number of heterodox economists are now using formalized models and are pursuing econometric studies, they are highly critical of many of the assumptions and conclusions being entertained by the mainstream. More specific information about the post-Keynesian approach can be found in the books of Hein and Stockhammer (2011a) and Lavoie (2014), for example.

The paper is divided into three parts. We will first present some of the critiques of mainstream economics, in particular those linked to the labour market seen from a macroeconomic perspective; we will then present an alternative view of the labour market, in particular regarding the impact of higher real wages on employment. The paper will end with a discussion of the implications of such a view for wage bargaining and macroeconomic policies. What is advocated here is a wage-led growth strategy (Lavoie and Stockhammer 2013).

### ***Some preliminary critical remarks on the mainstream view***

The NAIRU, or its twin, the natural rate of unemployment (NRU), is at the heart of mainstream economic theory, past or present, as it is now reflected in the so-called New Consensus model (NCM). And it is at the heart of macroeconomic policy as pursued by central banks and most central governments, before and after the Great Recession. The NAIRU is the non-accelerating inflation rate of unemployment. A more sensible definition would be the steady-inflation rate of

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unemployment (SIRU) or the constant-inflation rate of unemployment (CIRU). It is the rate of unemployment at which the rate of inflation would remain constant. Whereas proponents of the old Phillips curve claimed that there is a trade-off (a negative relationship) between the rate of wage or price inflation and the rate of unemployment, the NAIRU hypothesis claims that there is no such trade-off in the long run. The long-run Phillips curve is said to be vertical, at the rate of unemployment corresponding to the NAIRU or the NRU. Is there any difference between these two concepts –the NAIRU and the NRU? Not really. The NRU is usually said to apply to a Walrasian world of perfect competition, whereas the NAIRU is said to arise in a world of imperfect competition, with workers and firms using their wage and price setting powers, respectively. For practical matters, however, the two terms can be treated as synonyms, because the policy implications appear to be the same: if you want to have sustainably higher employment without inflationary pressures in the long run, you will have to weaken workers and their trade unions, liberalise and deregulate the institutions of the labour market and the social benefit system making them more ‘employer friendly’.

The NAIRU hypothesis says that if the actual rate of unemployment happens to be lower than the NAIRU, price inflation will accelerate, and if the actual rate of unemployment is higher than the NAIRU, price inflation will decelerate. Thus, there is a short-run trade-off, but this trade-off is between the *change* in the rate of inflation and the difference between the actual rate of unemployment and the NAIRU. Such situations, especially the first one, are unlikely to persevere, because the monetary authorities will not tolerate periods of rising inflation. The reason is that central banks take as a matter of faith that high inflation or unstable rates of inflation generate uncertainty in the minds of economic actors as information about future prices becomes doubtful, thus leading to the mistaken allocation of resources, less economic efficiency, and ultimately lower productivity growth (by contrast, the fact that flexible exchange rates can also generate uncertainty about future prices for exporters and importers does not seem to worry central bankers one bit!). This has led to making central banks independent and to have them target low rates of inflation.

Monetary policy within this framework is thus highly simple: whenever inflation rates are higher than the target, raise nominal and real interest rates and create enough of an economic slowdown to bring temporarily unemployment rates above the NAIRU, so that inflation rates will come down; and reciprocally, when inflation rates are too low, lower nominal and real interest rates and generate an expansion in aggregate demand so as to bring unemployment rates temporarily below the NAIRU, so as to raise inflation rates. The current Global Financial Crisis has shown that this mechanism could be broke: when inflation rates are overly low, or falling, it becomes impossible to lower real interest rates sufficiently so as to bring about a sufficient increase in aggregate demand and employment – the so-called zero-lower bound of nominal interest rates. Under these unique circumstances, fiscal policy regains the prominence that it had lost, for monetary policy is then powerless. Under normal circumstances, by contrast, according to the NCM, fiscal policy should never be used to raise employment,

because, such a policy could only lead to higher inflation rates and real interest rates as the monetary authorities would keep the economy around the NAIRU.

The NAIRU hypothesis has been under attack since its inception and the results of several empirical studies have questioned the validity of the hypothesis. The response of central bankers and of NAIRU supporters has been to modify the terms of the debate. One answer has been to argue for a TV-NAIRU, a time-varying NAIRU, that is, a NAIRU that can change in the short or medium run, but that remains a given number in the long run or a number which is determined by supply-side factors only. Another answer, especially provided by central bankers when low unemployment rates relative to the NAIRU estimates were accompanied by steady or falling inflation rates, has been to argue that policy makers have stopped looking at the rate of unemployment, focusing instead on the rate of capacity utilization in order to forecast inflation rates. Central bankers have thus created the concept of the steady-inflation rate of capacity utilization – the SIRCU. But this SIRCU is no different from the NAIRU: it is based on the assumption that there exists a rate of capacity utilization beyond which inflation will accelerate. Alternatively or together with the NAIRU and the SIRCU, neoclassical economists and central bankers have used the concept of the output gap – a measure of the discrepancy between what is actually produced and an estimate of potential output, what could be produced without creating additional demand pressures on inflation. Both the SIRCU and potential output are just a variant of the NAIRU concept, the advantage of potential output being that central bankers can always redefine it in the way that best serves their interests without being contradicted since, despite the greater transparency of the monetary authorities, the method to compute potential output is usually a well-kept central bank secret.

Whatever the concept being used, the NRU, the NAIRU, the SIRU, the SIRCU or the output gap, their purpose is to allow monetary authorities and the government to argue that a high-employment macroeconomic policy is something that is impossible to pursue since it will lead to overly high rates of inflation and a loss of competitiveness. In the case of the NAIRU, it is argued that there is (at least in the long run) a unique rate of unemployment below which the economy cannot find itself, for otherwise all the devilish forces of accelerating inflation will get unleashed. The only way to reduce the NAIRU is then supply-side policies, as mentioned above. As the well-known economist and forecaster Wynne Godley (1983, p. 170) argued long ago, 'Indeed *if* it is true that there is a unique NAIRU, that really is the end of the discussion of macroeconomic policy'. Godley continued by asserting that he did not believe that this was so, and he even went further by claiming that he did not 'accept that it is a foregone conclusion that inflation will be higher if unemployment is higher' (ibid), thus even questioning the standard Phillips curve analysis with its short-run trade-off between inflation and unemployment.

Those who keep the faith in the NAIRU argue that hundreds of studies have validated the use of this concept. Indeed, many of these studies, despite their sophisticated econometric methods, do not validate the relevance of the NAIRU concept. Instead, they start by *assuming* the existence of a NAIRU, and then on that basis they make an estimate of its value. The existence of the NAIRU requires that a one-on-one relationship exists between expected price

inflation (or past inflation), unit wage-cost inflation and price inflation. This relationship is assumed rather than proved. But the assumption is a wrong one to make because the best studies have shown that this one-to-one relationship just does not exist (Stanley 2005). Furthermore, a meta-regression analysis has shown that the NAIRU is not unique, even in the long run (Stanley 2004). In other words, the NAIRU tracks the actual rate of unemployment, rather than the actual rate of unemployment being attracted by the NAIRU. This is the phenomenon of path-dependence, or hysteresis. The combination of these two results provides evidence that the NAIRU is an empirically-empty concept. It is 'faith-based' economics.

Readers of this chapter who are concerned with labour bargaining may think: this is all very nice, and let us forget about the NAIRU; but what about all these estimates of labour demand functions that seem to confirm the mainstream view and demonstrate that (all else equal) there is a negative relationship between real wages and employment? The problem with these studies is similar to those trying to assess the validity of the neoclassical production function. For about 40 years now, post-Keynesian economists have been arguing that empirical estimates of the Cobb-Douglas production function or of similar production functions such as the constant elasticity of substitution and the translog production functions are statistical artefacts as they reproduce the identities of the national accounts. This will necessarily be the case whenever the data is provided through deflated values, which is always the case when going beyond a single firm and a fortiori when dealing with macroeconomic aggregates. Indeed, all the empirical estimates of the output elasticities of labour and of capital are tainted by this critique: it turns out that they measure nothing of the sort, but reproduce instead the shares of labour and capital in national income!

The critique extends to measures of the elasticity of the demand for labour with respect to real wages. As Felipe and McCombie (2013, p. 306) conclude, 'since value data and employment are linked through an accounting identity, we show that estimation of the labour demand function and the marginal revenue product curve with these data will always yield a negative relationship between the level of employment and the real wage', even when no such relationship exists by construction. As recalled by Felipe and McCombie (2013, pp. 302-310), this critique applies in particular to the well-known employment studies of Layard and his colleagues at the London School of Economics based on a bargaining model with wage-setting and price-setting curves, where the labour market equilibrium is being achieved at the intersection of these two curves, with unemployment arising as a consequence of the bargaining power of trade unions.

The many empirical studies of neoclassical economists purporting to provide support to the mainstream representation of the labour market are thus also based on an artefact. In the standard view, there is a downward-sloping demand curve for labour, arising from the neoclassical production function, and an upward-sloping or backward-bending labour supply curve, as shown in Figure 1. Unemployment occurs when some imperfection, such as labour unions, minimum wage legislation or other labour market regulations, leads to the realization of a real wage  $(w/p)_0$ , perhaps given by the wage-setting and price-setting curves) which is higher

than the so-called equilibrium wage rate  $(w/p)_{fe}$  that would be found at the intersection of the labour demand and supply curves.

INSERT FIGURE 1

The field is now cleared to present a positive alternative. What has been argued so far is that there is no reason to believe that there is a unique rate of unemployment which is consistent with steady inflation or that there exists a negative relationship between real wages and the level of employment (for a given technique). Multiple equilibria are likely to be the norm. This opens up the range of collective bargaining and macroeconomic policies.

### ***An alternative viewpoint: post-Keynesian economics***

Post-Keynesian macroeconomics is based on a different set of microeconomic principles. Most of neoclassical economics relies on the law of diminishing returns and hence on the principle of rising marginal costs. Some mainstream economists have made a name for themselves by considering the consequences of introducing increasing returns or increasing returns to scale, in the case of Paul Krugman within the field of international trade. All of post-Keynesian economics relies on increasing returns, because empirical studies of the cost curves faced by firms have shown that most firms face constant or decreasing unit costs in the short run (Lee 1998), as has been confirmed recently by Blinder et al. (1999) who recall that about 90 per cent of firms describe their variable unit costs as being either decreasing or constant. If variable unit costs are constant, the addition of fixed unit costs such as managerial labour costs implies that total unit costs are decreasing as output expands.

An immediate consequence of the above is that higher economic activity does not put upward pressures on prices. With a given output capacity, as long as firms are producing with excess capacity, higher economic activity leads to lower unit costs and hence to larger profit margins despite prices remaining constant. With firms selling more units and with each unit bringing in more profit, higher economic activity is associated with higher total profits. Thus, under such circumstances, there is no incentive for firms to raise prices as long as their unit costs do not rise, as has been confirmed by a number of pricing surveys in the US and in Europe (Melmiès 2010). If higher demand exercises any pressure on prices, it is a downward one.

There is an exception to this rule, and that is the production of raw materials and agricultural products. The prices of these commodities are however mostly determined on world markets. And thus a rise in domestic aggregate demand is unlikely to have any impact on the cost of these raw materials, unless the whole world is experiencing an economic boom, in which case all countries, including the main competitors of the domestic producers, will be facing rising unit costs.

Another consequence of the shape of cost curves as perceived by post-Keynesian economists is the rejection of the mainstream representation of the labour market, with its downward-sloping labour demand curve as represented in Figure 1. As pointed out above, the

shape of this labour demand curve arises from the profit-maximizing behaviour of firms: its downward slope is caused by the existence of diminishing returns, which forces firms to hire less labour when real wages are higher if firms wish to maximize their profits.

But no such restriction exists in the case of the post-Keynesian firm, because, as was pointed out earlier, the more the firm can sell at a given price, the more profits the firm will be making. Thus, within such a framework, the main constraint on firms and the employment that they will offer is not diminishing returns but rather their share of the market – the size of demand. The larger is the demand for their products, the more workers will be hired. What happens on the labour market thus is not determined by the labour market as such; rather it is determined by what happens on the goods market; it depends on aggregate demand. Thus in a world of (constant or) increasing returns, which is the real world in which we live, the constraint faced by firms taken as a whole is one determined by aggregate demand, or what Keynes and the post-Keynesians call the constraint of effective demand. Aggregate demand, as is well known from national accounting, depends on four major components: consumption, investment, government expenditure and net exports.

From the post-Keynesian perspective sketched so far, neither employment nor the real wage (or the wage share in national income) are determined in the labour market. What is determined in the labour market is the nominal wage rate and, with a given technology, nominal unit labour costs. These have a major impact on the price level when firms apply cost-plus or mark-up pricing on constant unit variable costs, as they seem to do according to Blinder et al (1999) and Melmiès (2010). Under certain conditions, however, changes in nominal unit labour costs will also affect the real wage rate and hence functional income distribution. Generally, this will be the case whenever firms are not symmetrically affected by changes in nominal wages (Sylos-Labini 1979). There may be several reasons for this: different rates of nominal wage increases and/or different rates of labour productivity growth across domestic firms or sectors, external competitors not facing the same increase in nominal unit labour costs, or changes in the nominal exchange rate. Finally, price and distribution effects of nominal wage variations will then feedback on aggregate demand in the goods market and thus also on employment (Hein and Stockhammer 2011b).

Over the last decade, post-Keynesians have devoted quite a bit of empirical research to the relationship between nominal unit labour cost growth and output price inflation, on the one hand, and to the impact of real wages or the wage share on aggregate demand, on the other hand. Regarding the former Stockhammer, Hein and Grafl (2011) and Stockhammer, Onaran and Ederer (2009) have presented empirical evidence for an only partial adjustment of output price inflation to changes in nominal unit labour cost growth for Germany and the Euro area, and Onaran and Galanis (2012) for several G-20 countries. Therefore, it can be safely assumed that nominal wage setting does not only affect output prices but also real wages and the wage share, in particular in small open economies considerably exposed to foreign competition. Let us therefore take a closer look at the macroeconomic effects of changes in the real wage rate or the wage share.



Whereas mainstream authors essentially look at wages as a cost to firms, post-Keynesian economists see wages as an important source of aggregate demand, that is, as a key element that generates sales of consumption goods (and hence all necessary intermediary goods) for firms. As a first step, let us consider what happens to consumption expenditures when real wages are raised relative to profits, such that, with a given technology, the wage share rises and the profit share falls. Intuitively one would think that such an increase in real wages (all else equal) would lead to an increase in consumption, because workers will spend a higher proportion of their income than profit recipients will. The propensity to save out of profits is much higher than that out of wages. And indeed this is exactly what is being observed by empirical studies conducted by post-Keynesian economists.

Both Storm and Naastepad (2012, p. 130) and Onaran and Galanis (2012, p. 12) estimate that the difference between these two propensities to save is around 0.40 on average for OECD, Euro area and most G-20 countries. Thus if the share of wages goes up thanks to an increase in real wages, consumption expenditures will also go up. The consequences of such a feature for the labour market are shown in Figure 2. Recall that a profit-maximizing firm facing increasing returns tries to produce and sell as much as it can, whatever the real wage (as long as this real wage is lower than labour productivity). The demand for labour of firms, in this case the effective demand for labour, is thus upward-sloping, as illustrated in Figure 2. The higher the real wage the higher will be the level of employment. With the given vertical labour supply curve, the real wage would need to be as high as  $(w/p)_{fe}$  for full employment to be achieved. Here we have what we could call a variant of the paradox of costs: increasing the real wage leads to more labour employment.

A similar argument can be made about the negative impact of the rising wage dispersion observed over the last decades (Piketty 2014). Since rich households have a higher propensity to save out of their income than do middle-class households, a redistribution of income towards the upper classes tends to diminish overall consumption expenditures.

#### INSERT FIGURES 2 AND 3

If the labour supply curve is upward sloping, as is assumed by most economists, meaning that higher real wages will encourage more people to join or remain in the labour force, then two full-employment equilibria are possible. There is a high full-employment equilibrium, noted *H* in Figure 3, and a low full-employment equilibrium, noted *B*. At *H*, the economy benefits simultaneously from high employment and high real wages. Unfortunately, starting from a real wage situated anywhere between the high and the low full-employment real wage rates, (such as  $(w/p)_0$ ), market forces left on their own will push the economy towards the low equilibrium *B* because unemployment will tend to drive down real wages (all else equal, as usual). In the lingo of economists, the low full-employment equilibrium is stable while the high full-employment equilibrium is not. Thus the adoption of neoliberal policies that are market-friendly, for instance a decrease in unemployment benefits, which is likely to put downward pressures on wages, will tend to drive the economy towards *B*. Such a policy may indeed be

successful in reducing the rate of unemployment, but this will be achieved by driving down participation rates and the level of employment. The architects of such neoliberal policies may thus claim that they have achieved full employment, but a much better full-employment equilibrium, with a higher participation of the labour force and higher real wages could have been achieved at *H* if economic policies and institutions more favourable to the working class had been pursued.

At this point, readers may wonder what difference it makes to the argument if the other components of aggregate demand are taken into consideration. In other words, what impact does an increase in real wages have on government expenditure, investment and net exports? Obviously, if civil servants receive higher real wages this will also have a favourable impact on consumption and hence on aggregate demand. This positive effect is however left out in empirical studies of the effect of higher real wages or wage share on aggregate demand, where the focus, besides the impact on consumption, is the impact on investment and net exports.

Although there are still quite a lot of controversies about the results and the statistical methods used to achieve them, we believe that it is fair to say that recent studies find that aggregate demand (even when taking into account net exports) is wage-led in most European countries, meaning that higher real wages or a higher wage share leads to an increase in GDP or in GDP growth (Storm and Naastepad 2012, p. 143; Onaran and Galanis 2012, Table 11; Hein 2014a, Chapter 7.4). These results are confirmed when looking at panel data for OECD countries (Hartwig 2014). A few countries outside of Europe (and the European small open economies of Austria and Switzerland) appear to have a profit-led aggregate demand regime, mostly because of the expansionary effects of redistribution at the expense of wages on net exports. However, most countries, if not all countries, exhibit wage-led *domestic* aggregate demand. Thus, at the level of planet earth, since net exports are zero by definition, the only reasonable strategy for the expansion of aggregate demand is to pursue a strategy of wage-led growth, that is, a strategy that is favourable to the labour force. This is true, even leaving aside the favourable impact on productivity growth and standards of living induced by higher real wages, known as Hicks, Marx or Webb effects.

Thus, to sum up the discussion so far, empirical studies seem to indicate that most of the European countries exhibit an aggregate demand that is wage-led. These countries would thus unambiguously benefit from a strategy of wage-led growth. Such a strategy would need to reverse the present trend in wage and profit shares since the wage share has fallen considerably since the early 1980s in many developed capitalist economies, when the Keynesian compromise of the post-World War II 'Golden Age' collapsed in the early/mid 1970s and was replaced by the dominance of finance ('financialisation') and a neo-liberal economic policy stance starting in the late 1970/early 1980s (Storm and Naastepad 2012, pp. 117-122).

### ***Implications for wage bargaining and macroeconomic policies***

What are the implications of these findings for wage bargaining and macroeconomic policies? Generally, a wage-led growth strategy would have to address the main causes for falling wage shares and rising inequality in the period of financialisation and neo-liberalism since the early 1980s. Applying a Kaleckian approach towards the determination of functional income distribution, integrating some stylized facts of financialisation and neo-liberalism into this approach and reviewing the respective empirical literature, Hein (2014) argues that there is some convincing empirical evidence that financialisation and neo-liberalism have contributed to the falling wage share since the early 1980s through three main channels.

First, financialisation and neo-liberalism have weakened trade union bargaining power for several reasons: an increasing shareholder value and short-term profitability orientation of management, sectoral shifts away from the public sector and the non-financial business sector with stronger trade unions in many countries to the financial sector with weaker unions, the abandonment of government demand management and full employment policies, the liberalisation and globalisation of international trade and finance, and the deregulation of the labour market. The latter has meant, among other things, 'weakened labor standards...; lax enforcement of existing labor standards; an eroded safety net, including changes to unemployment insurance (tightening eligibility requirements, shortening duration of benefits, and making it more difficult to turn down jobs with inferior pay) and what used to be called welfare' (Mishel et al., 2014, p. 4).

Second, the increase in management salaries as a part of overhead costs together with rising profit claims of rentiers, that is, , rising interest and dividend payments of the corporate sector, have in sum been associated with a falling wage share, although management salaries are part of compensation of employees in the national accounts and thus of the wage share.

Third, the shift in the sectoral composition of the economy from the public sector and the non-financial business sector with higher wage shares towards the financial business sector with a lower wage share has contributed to the fall in the wage share for the economy as a whole in several countries.

All these developments have not only triggered falling wage shares, but they have also contributed to the observed increases in inequality of personal/household incomes because of the highly unequal distribution of wealth among individuals and households.

From this it follows that a wage-led growth strategy would have to focus on these main causes in order to contribute to reversing the falling trend of the wage share. First, the bargaining power of trade unions would have to be stabilised and enhanced by means of improving employment and persistently reducing unemployment through active demand management policies, enlarging workers' and trade union rights, and reconstructing efficient wage bargaining institutions at industry, sector and national levels in order to provide the conditions for highly 'coordinated wage bargaining' for the economy as a whole. Second, overhead costs of firms, in particular top management salaries and interest payments, as well as

profit and dividend claims of financial wealth holders would have to be reduced through appropriate regulation measures, in particular, in order to allow for higher wage shares for workers without triggering inflationary pressures. And third, the sector composition of the economy would have to be shifted away from the high profit share financial sector towards the non-financial corporate sector and the public sector.

From this it also follows that a policy strategy relying on redistributing income in favour of wages should not only focus on improving workers' and trade union wage bargaining power but also on containing distributional claims (and power) of firms and rentiers, in particular. Furthermore, as Hein and Truger (2012/13) have argued, a wage-led growth strategy would have to be integrated in and supported by a 'Keynesian New Deal at the Global Level', which has three main pillars. First, re-regulating the financial sector should prevent financial instability and crisis, as well as excessive distributional claims of this sector. Second, international coordination of economic and currency policies should prevent 'beggar thy neighbour' policies, that is, persistent net exports and current account surpluses of single countries achieved through wage moderation and pressure on workers and trade unions. And third, a wage-led growth strategy would have to be integrated into an appropriate macroeconomic policy mix providing domestic demand growth at non-inflationary full employment, avoiding persistent current account surpluses (Hein and Stockhammer 2011b).

This macroeconomic policy mix should include monetary policies targeting low long-term real interest rates below long-run real GDP growth of the respective country, instead of low inflation as in the NCM, thus constraining distribution claims of rentiers. Fiscal policies should reduce the inequality in the distribution of households' disposable income, applying progressive income taxes, inheritance and wealth taxes, as well as social transfers. And most importantly, fiscal policies should maintain aggregate demand at non-inflationary full employment levels in the short and in the long run, accepting the required government deficits (or surpluses) in a functional finance manner. Central banks would have to guarantee the related government debt while targeting low interest rates would prevent unfavorable distribution effects of government debt services. The full-employment fiscal policy is a key component of the Keynesian New Deal because, as will be recalled below, while high real wages are likely to generate faster rates of economic growth and higher rates of capacity utilization, it is also likely to generate faster labour productivity growth. The latter may thus hinder the growth rate of employment unless a full-employment fiscal policy is also pursued.

Coordinated wage policies should generally attempt to achieve nominal wage growth at a rate equal to long-run economy wide productivity growth plus the inflation target, contributing to stable distribution and accepting responsibility for stable inflation rates, too. However, in order to raise the wage share in national income and to reverse the recent downward trend without triggering accelerating inflation, nominal wage growth should exceed this norm, provided that distribution claims of other actors are or can be suppressed. That is the reason why it is important for the monetary authorities to re-regulate finance and to implement low interest rate policies, because the distribution claims of rentiers will then be restricted.

Furthermore, as pointed out earlier, nominal wage setting, in particular in small open economies, can rely on foreign competition to constrain the price setting power and thus the distribution claims of domestic firms.

Finally, such a strategy also has to take into account potentially positive feedback effects of real wage hikes on labour productivity (growth) – the Hicks-Marx-Webb effects mentioned at the end of the previous section. What this means is that we have to take into account that productivity growth is endogenous in relation to real wage growth, and thus we have to take this feedback mechanism running from wage bargaining to productivity growth into consideration when we estimate the inflation-safe wage claim. Therefore there is not a pre-determined unique long-run productivity growth rate, but rather there are several possible long-run productivity growth rates. On the one hand, these are affected by the positive Hicks-Marx-Webb wage-push effects. On the other hand, there is a positive causal relationship that goes from the growth of aggregate demand to the growth of labour productivity, as argued by the post-Keynesian advocates of Verdoorn's law (McCombie 2002). Hence there is not necessarily a one-to-one relationship between nominal wage growth and price inflation for two reasons. First, trade unions may be successful in squeezing the mark-up and hence the distribution claims of firms and rentiers under the conditions mentioned above. Second, real wage growth has direct and, in a wage-led economy, indirect positive effects on productivity growth. Consequently, under certain circumstances, trade unions can make nominal wage claims that are higher than the past productivity growth trend plus the inflation target without causing faster inflation.

Summing up, from a post-Keynesian perspective, going from a low to a high employment equilibrium requires appropriate institutions and regulations of domestic and international markets, and in particular an appropriate macroeconomic policy mix. Distribution and incomes policies have an important role to play in this policy mix, but they have to be supplemented by adequate monetary and fiscal policies, in particular. Furthermore, distribution and incomes policies should not only be concerned with wage bargaining, but also with distribution claims of other actors and social groups, and they should take productivity effects into account.

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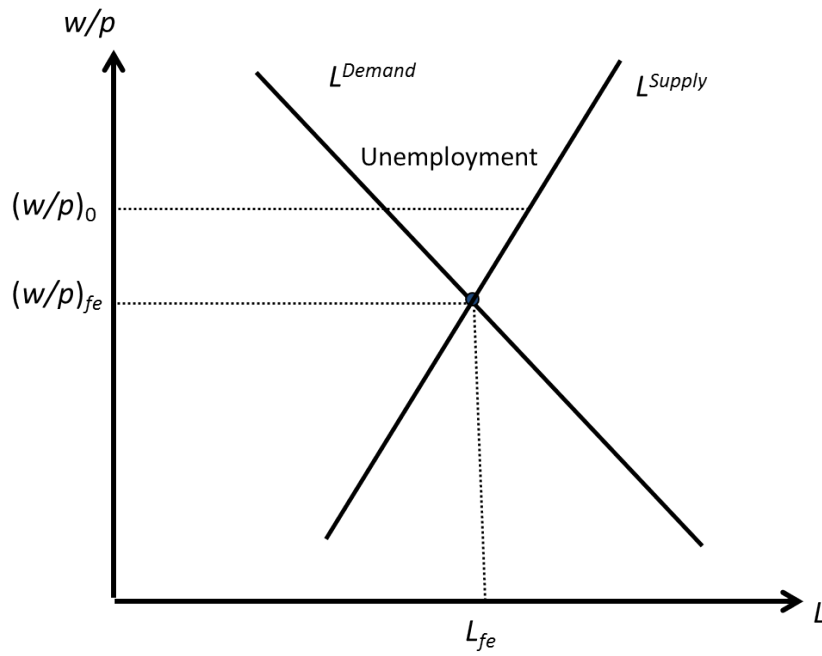
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# Figure 1



# Figure 2

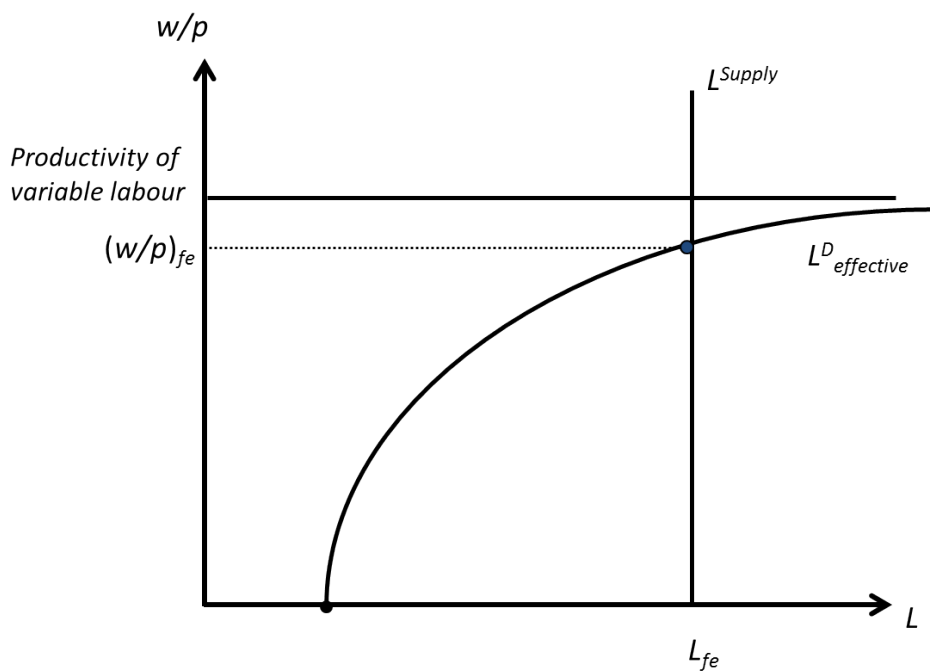
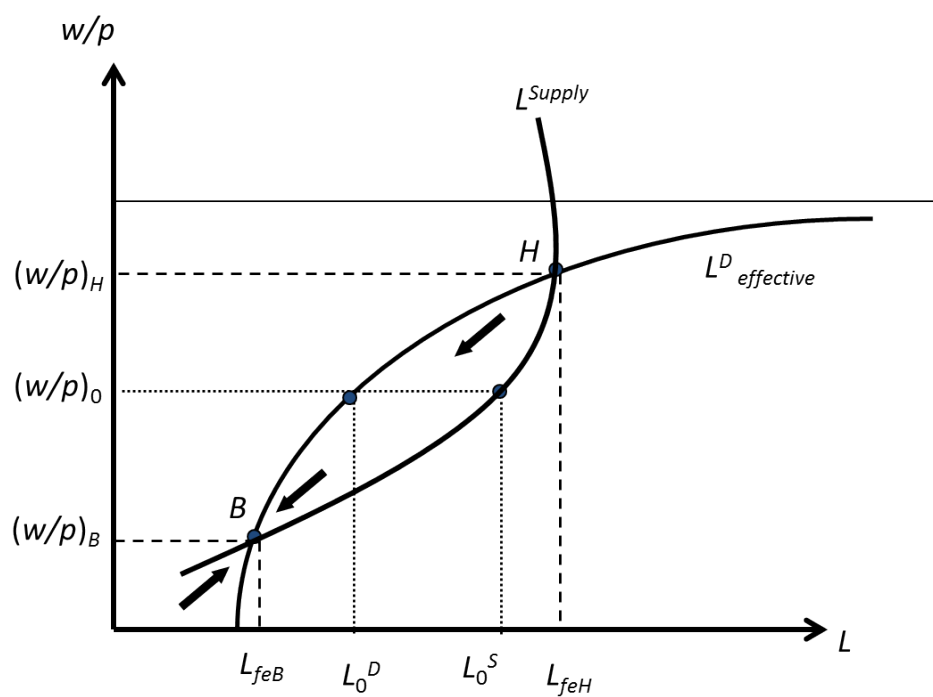




Figure 3



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