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STAGNATION POLICY IN THE EUROZONE AND ECONOMIC POLICY ALTERNATIVES: A STEINDLIAN/NEO-KALECKIAN PERSPECTIVE

Eckhard Hein¹

ABSTRACT

Empirically, the macroeconomic institutions and the macroeconomic policy approach in the Eurozone have failed badly, both in terms of preventing the global financial and economic crisis from becoming a euro crisis and in generating a rapid recovery from the crisis, in particular. In this paper I will argue that the dominating macroeconomic policy regime in the Eurozone can be seen as a version of what Steindl (1979) had called 'stagnation policy'. To underline this argument, I will provide a simple Steindlian distribution and growth model in order to identify the main channels through which stagnation policy affects accumulation and productivity growth. This will also provide a set of elements of a Steindlian anti-stagnation policy. Against this theoretical background I will then examine the macroeconomic institutions and the macroeconomic policy approach of the Eurozone which has been based on the New Consensus Macroeconomics (NCM) and I will highlight its main deficiencies. This will then provide the grounds for an outline of an alternative macroeconomic policy approach for the specific institutional setup of the Eurozone based on a post-Keynesian/Steindlian/neo-Kaleckian approach.

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Stagnation policy in the Eurozone and economic policy alternatives: A Steindlian/neo-Kaleckian perspective*

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Abstract

Empirically, the macroeconomic institutions and the macroeconomic policy approach in the Eurozone have failed badly, both in terms of preventing the global financial and economic crisis from becoming a euro crisis and in generating a rapid recovery from the crisis, in particular. In this paper I will argue that the dominating macroeconomic policy regime in the Eurozone can be seen as a version of what Steindl (1979) had called 'stagnation policy'. To underline this argument, I will provide a simple Steindlian distribution and growth model in order to identify the main channels through which stagnation policy affects accumulation and productivity growth. This will also provide a set of elements of a Steindlian anti-stagnation policy. Against this theoretical background I will then examine the macroeconomic institutions and the macroeconomic policy approach of the Eurozone which has been based on the New Consensus Macroeconomics (NCM) and I will highlight its main deficiencies. This will then provide the grounds for an outline of an alternative macroeconomic policy approach for the specific institutional setup of the Eurozone based on a post-Keynesian/Steindlian/neo-Kaleckian approach.

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Keywords: Stagnation, stagnation policy, Eurozone, policy alternatives, Steindl

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1. Introduction

The current macroeconomic policy approach in the Eurozone and the institutional setting on which it is based have obviously failed to prevent the global financial and economic crisis of 2007-09 from becoming a euro crisis, on the one hand, and to generate a rapid recovery from these crises in the Eurozone, on the other hand. After the Great Recession of 2008/9, the Eurozone was hit by another downturn in 2012/13. Although there has been some meagre growth since then, by 2016 the Eurozone had only slightly exceeded the level of economic activity before the crisis in 2007, but it had not at all returned to the pre-crisis growth rate or even growth path. In several countries, like Spain, Finland, Portugal, Italy and most notably Greece, real GDP is still (considerably) below the pre-crisis level of 2007. Furthermore, several Eurozone member states and the Eurozone as a whole have turned towards the German export-led mercantilist model, running increasing net exports and current account surpluses as a major driver of demand and growth. This risky strategy is contributing to global imbalances and raises severe doubts regarding its sustainability, both economically and politically.

Given this record, the euro crisis cannot be considered to be resolved and a collapse of the single currency is still a major economic and political threat to European integration. We consider the current economic situation and stagnation in the Eurozone as a result of a deliberately chosen macroeconomic policy regime which can be seen as a European version of what Steindl (1979) has called ‘stagnation policy’. This means that we consider stagnation in general, and stagnation in the Eurozone in particular, not as an inescapable tendency, as ‘secular stagnation’ (Summers 2014, 2015), but as a political product – which therefore can be affected and changed politically.¹ But before we outline an economic policy alternative for the Eurozone, we will present a more detailed picture of ‘economic stagnation made in the Eurozone’ in Section 2. Section 3 will then provide a Steindlian model of growth and stagnation policy, in order to identify the channels through which economic policy affects growth and thus also stagnation. Against this background, Section 4 will then take a look at the main failures of the macroeconomic policy regime of the Eurozone, which can be viewed as a version of New Consensus Macroeconomics (NCM). Section 5 will then present a post-Keynesian/neo-Kaleckian alternative to the current macroeconomic policy approach, which is in line with the Steindlian perspective on anti-stagnation policy. Section 6 will summarise and conclude.

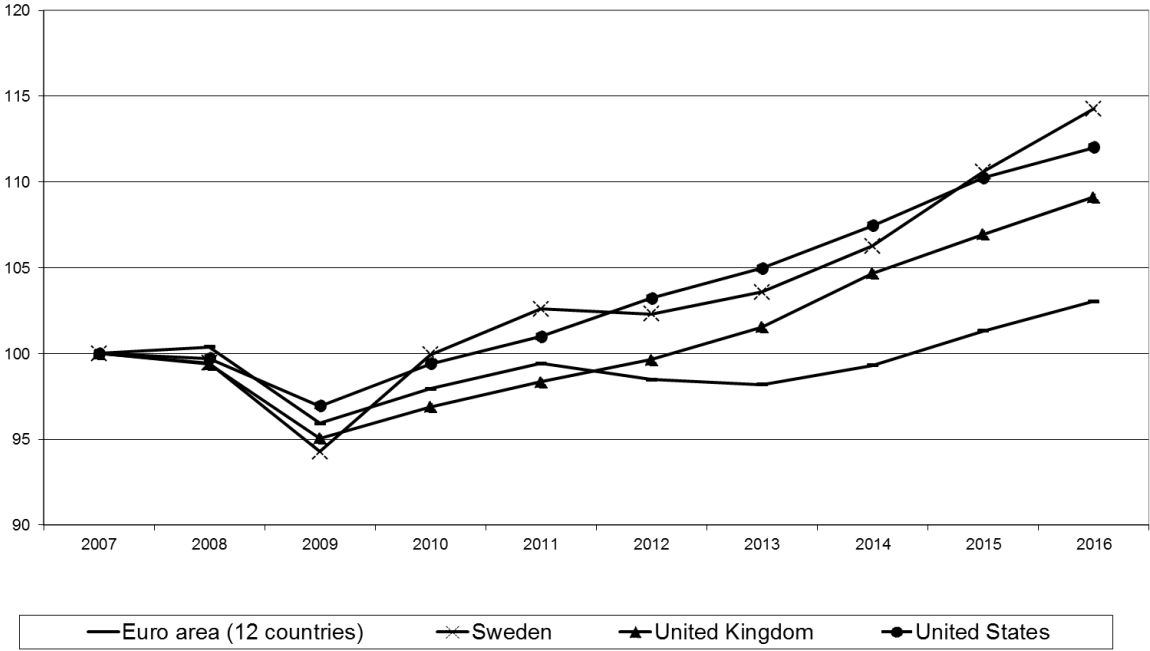
2. Features of economic stagnation made in the Eurozone

The recovery in the Eurozone after the Great Recession has been particularly weak in international comparison, as can be seen in Figure 1. Here we compare the core Eurozone (EA-12) with developed capitalist economies and take the US, as a currency area of similar size, as well as the UK and Sweden as non-euro EU countries as standards for comparison. After the Great Recession of 2008/9, the Eurozone was hit by another downturn in 2012/13, and although there has been some meagre growth since then, by 2016 the Eurozone had

¹ For a post-Keynesian critique of the theoretical underpinnings of the current mainstream debate on ‘secular stagnation’ and an extensive elaboration of a Steindlian alternative view see Hein (2016a).

only slightly exceeded the level of economic activity before the crisis in 2007, but it had not at all returned to the pre-crisis growth rate or even growth path. However, this is not equally true for all the EA-12 countries, as can be seen in Figure 2. In several countries, like Spain, Finland, Portugal, Italy and most notably Greece, real GDP is still (considerably) below the pre-crisis level of 2007.² Therefore, the tendency towards stagnation after the Great Recession observed for developed capitalist economies as a whole (Summers 2014, 2015, Teulings/Baldwin 2014a, 2014b), has been particularly pronounced for the core Eurozone and even more so for certain countries within this group.

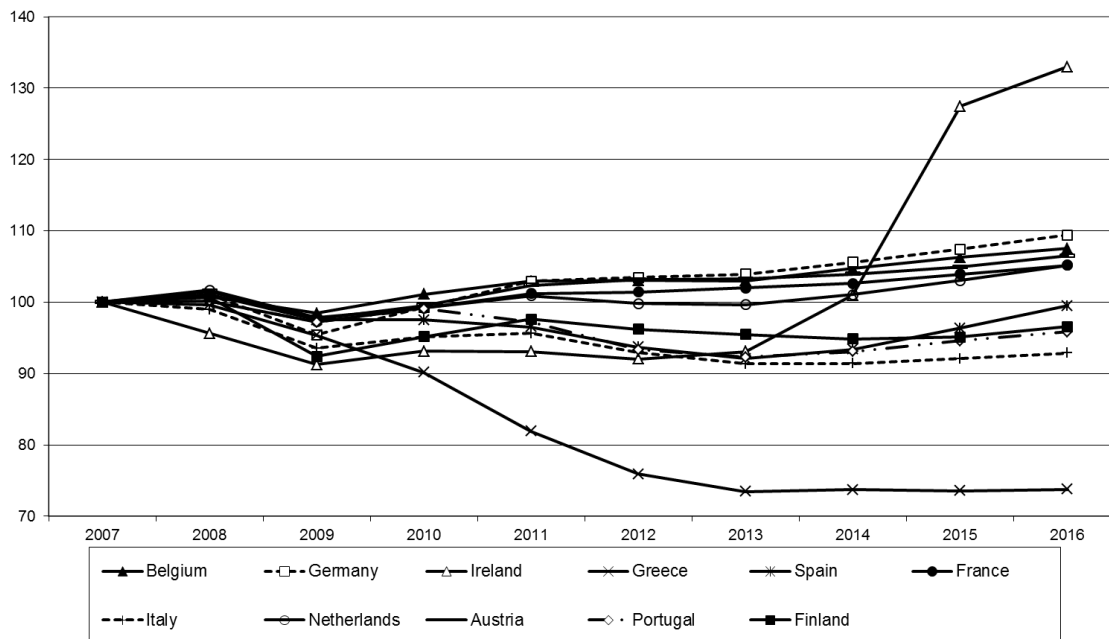
Figure 1: Real GDP in the Eurozone (EA-12), the USA, the UK and Sweden, 2007-2016, 2007=100



Source: European Commission (2017), author's calculations

² The extraordinary upswing in Ireland is due to the high presence of foreign owned companies in low taxation Ireland, which blows up GDP. According to Joebges (2017), GNI per capita has been 15 percentage points lower than GDP per capita and has not seen such an impressive upswing.

Figure 2: Real GDP in Eurozone member countries, 2007-2016, 2007=100



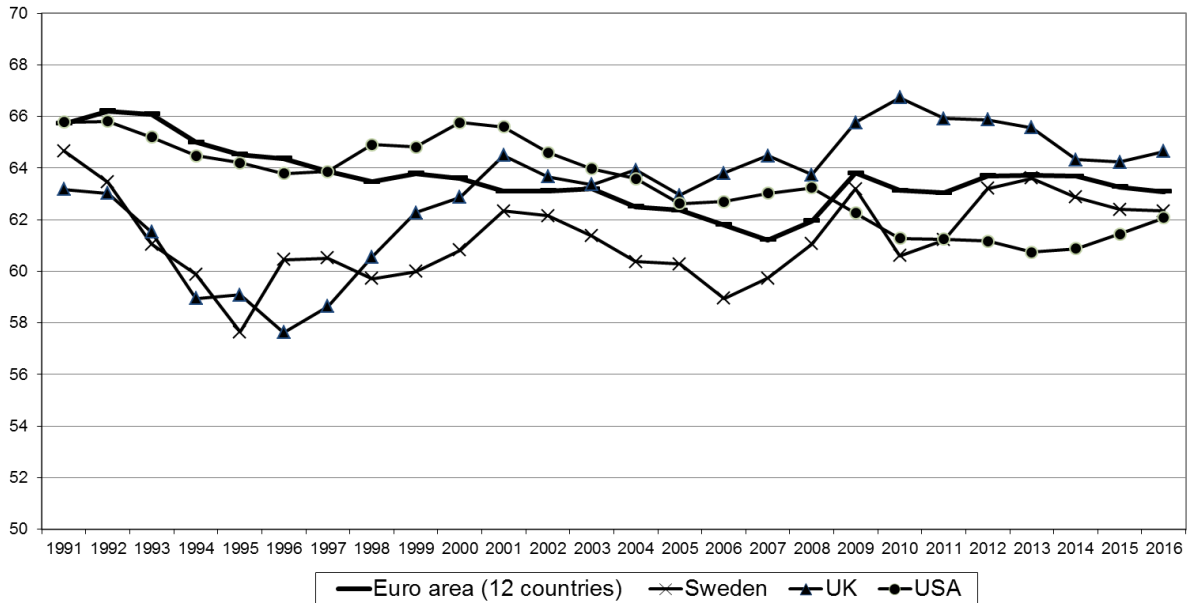
Source: European Commission (2017), author's calculations

In the mainstream contributions to the current debate on ‘secular stagnation’, distributional issues are broadly ignored, or only play a marginal role at best. However, in heterodox contributions, neo-Marxist and post-Keynesian of different sorts, and also in the Steindlian approach chosen in this paper, changes in income distribution have a major role to play when it comes to explaining stagnation tendencies in general and those after the crisis in particular (Blecker 2016, Cynamon/Fazzari 2015, 2016, Foster/McChesney 2012, Hein 2016a, Kotz 2013, Palley 2016, van Treeck 2015). Looking at the labour income share as an indicator of functional income distribution, we see some stabilisation of the Eurozone as a whole, which terminated the falling trend that had lasted up until the crisis (Figure 3). In Sweden we also see some stabilisation, whereas in the US the falling trend seems to continue. In the UK, after an initial rise during the crisis, the labour income share seems to be on a falling trend again. Beneath the stabilisation of the labour income share for the core Eurozone as a whole after the crisis, however, we observe dramatic declines not only in the crisis countries, Greece, Portugal, Spain, Ireland³, but also in Italy and Finland. France and the Netherlands have seen a slightly rising tendency, and in Germany, Belgium and Austria we observe some stabilisation of the labour income share.⁴

³ Again, the Irish data should be taken with care, because the high presence of foreign owned companies shifting profits to Ireland because of low tax rates blows up GDP and thus depresses the labour income share as a percentage of GDP.

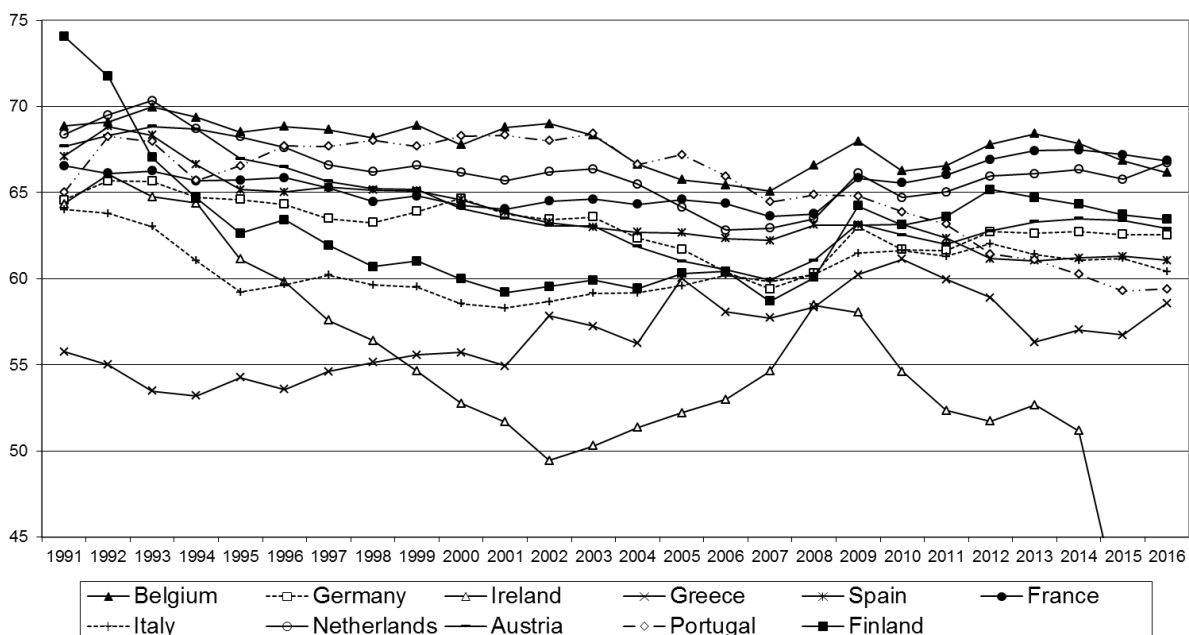
⁴ For a more detailed analysis of income distribution before and after the crisis for France, Germany, Spain, Sweden, the UK and the US, see Hein et al. (2017).

Figure 3: Labour income share in the Eurozone (EA-12), the USA, the UK and Sweden, as percentage of GDP at current factor cost, 1991-2016



Source: European Commission (2017)

Figure 4: Labour income share in Eurozone member countries, percentage of GDP at current factor cost, 1991-2016

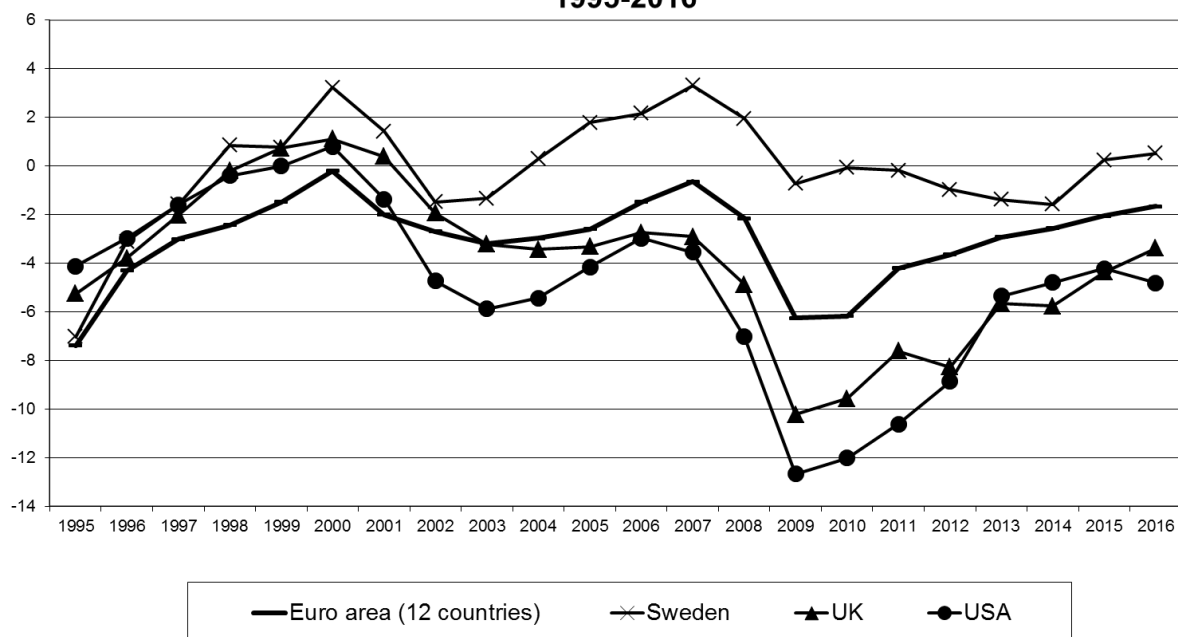


Source: European Commission (2017)

Since the relevant policy advisers and policy makers in the EU and the Eurozone have interpreted the euro crisis starting in 2010 as a sovereign debt crisis, the major response has been to advocate and to implement fiscal austerity measures in order to reduce the rising government deficits- and debt-GDP ratios. This was accompanied by labour market reforms

in order to reduce unit labour costs and to improve international price competitiveness.⁵ In the initial years of the crisis, 2008-10, the Eurozone governments accepted rising fiscal deficits, due to automatic stabilisers and discretionary expansive fiscal policy, which were, however, lower than in the US and the UK, whereas in Sweden only government surpluses were reduced, without running deficits (Figure 5). However, with the start of the euro crisis, government deficit-GDP ratios in the Eurozone declined despite weak aggregate demand and stagnation, whereas the US and the UK kept on stabilizing aggregate demand by significant government deficits. Within the Eurozone, fiscal austerity has been particularly harsh in the crisis countries, Greece, Spain and Portugal, but also in Finland and Italy, which saw a dramatic decline in their government deficit-GDP ratios despite shrinking GDP and income (Figure 6). Contrary to the intentions, these austerity policies were not able to reduce the government debt-GDP ratios significantly, which had risen because of stabilising fiscal policies and the public rescue measures in favour of the financial sectors in crisis. For the Eurozone, the government debt-GDP ratio stabilised at a high level similar to the one in the US and the UK (Figure 7), and within the Eurozone only those countries with somewhat higher growth, like Germany and the Netherlands, managed to reduce their government debt-GDP ratio slightly (Figure 8).⁶

Figure 5: General government financial balance relative to GDP in the Eurozone (EA-12), the USA, the UK and Sweden, in per cent, 1995-2016

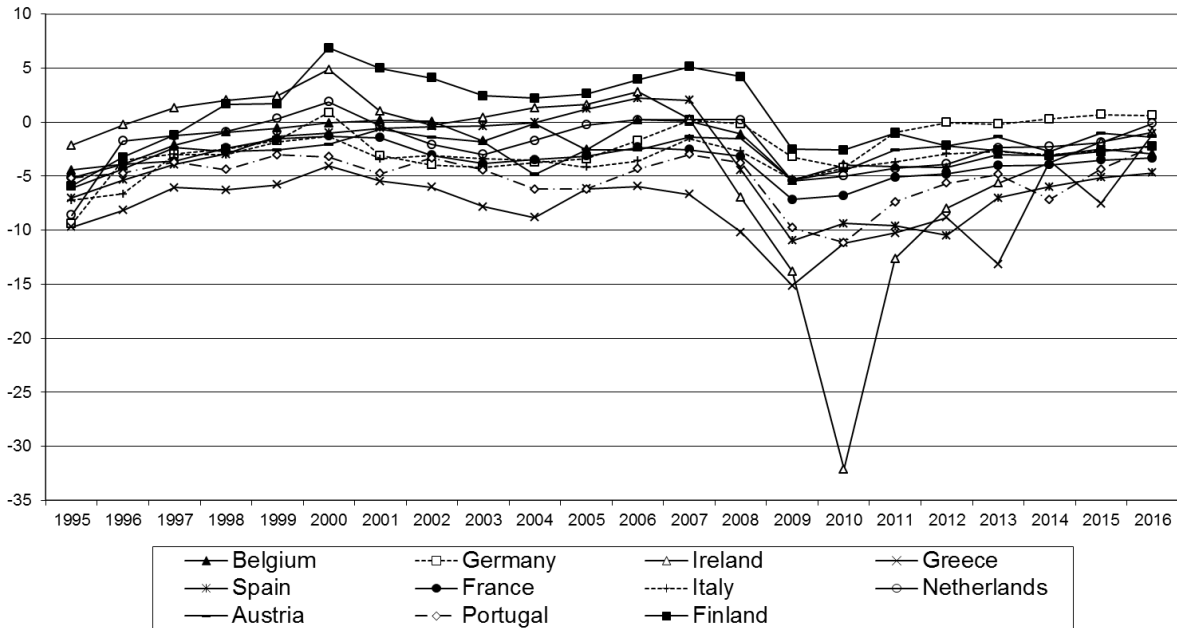


Source: European Commission (2017), author's calculations

⁵ See De Grauwe (2012), De Grauwe/Ji (2015), Dodig/Herr (2015) and Hein (2013/14) for detailed assessments of the policy measures in the Eurozone trying to address the crisis and their respective effects and merits.

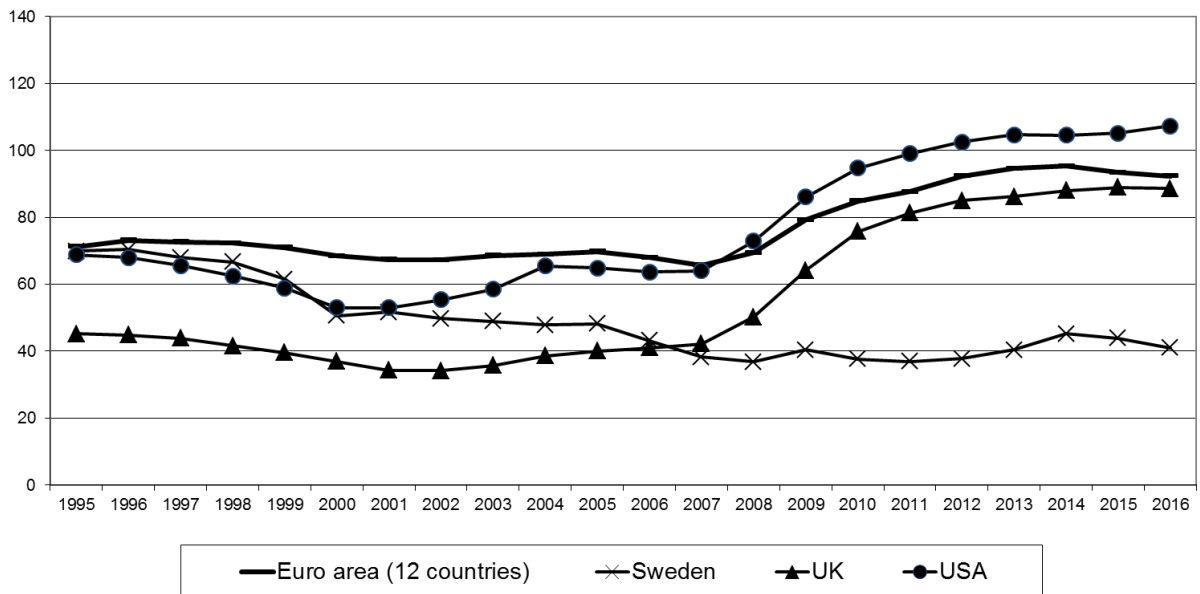
⁶ Again, the Irish case is special for the reasons mentioned in the footnotes above.

Figure 6: General government financial balance relative to GDP in Eurozone member countries, in per cent, 1995-2016



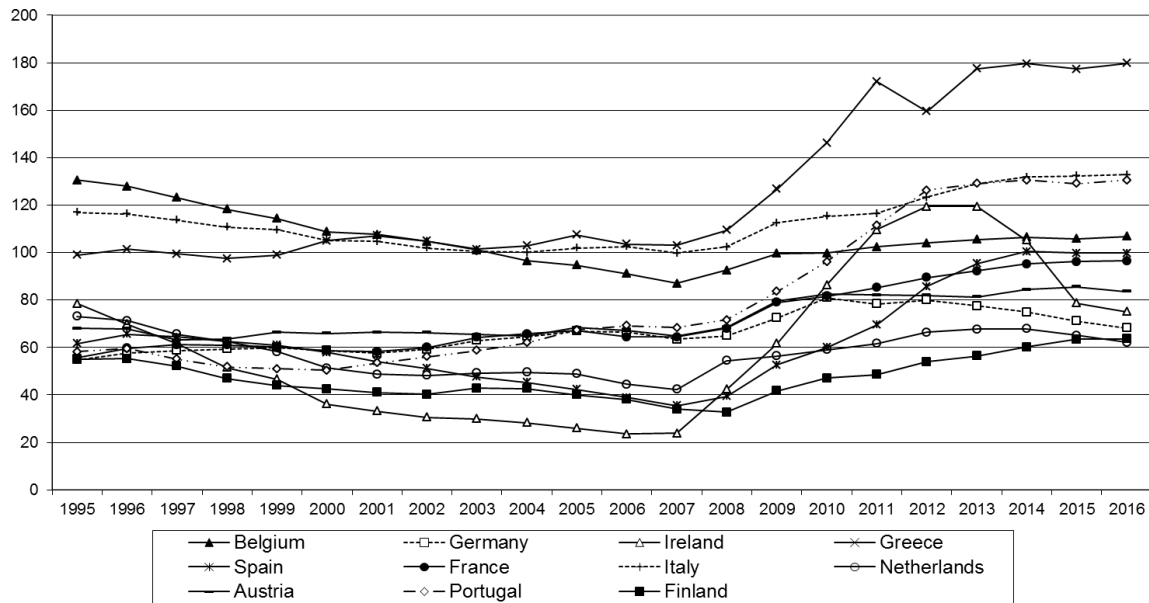
Source: European Commission (2017), author's calculations

Figure 7: General government gross consolidated debt relative to GDP in the Eurozone (EA-12), the USA, the UK and Sweden, in percent, 1995-2016



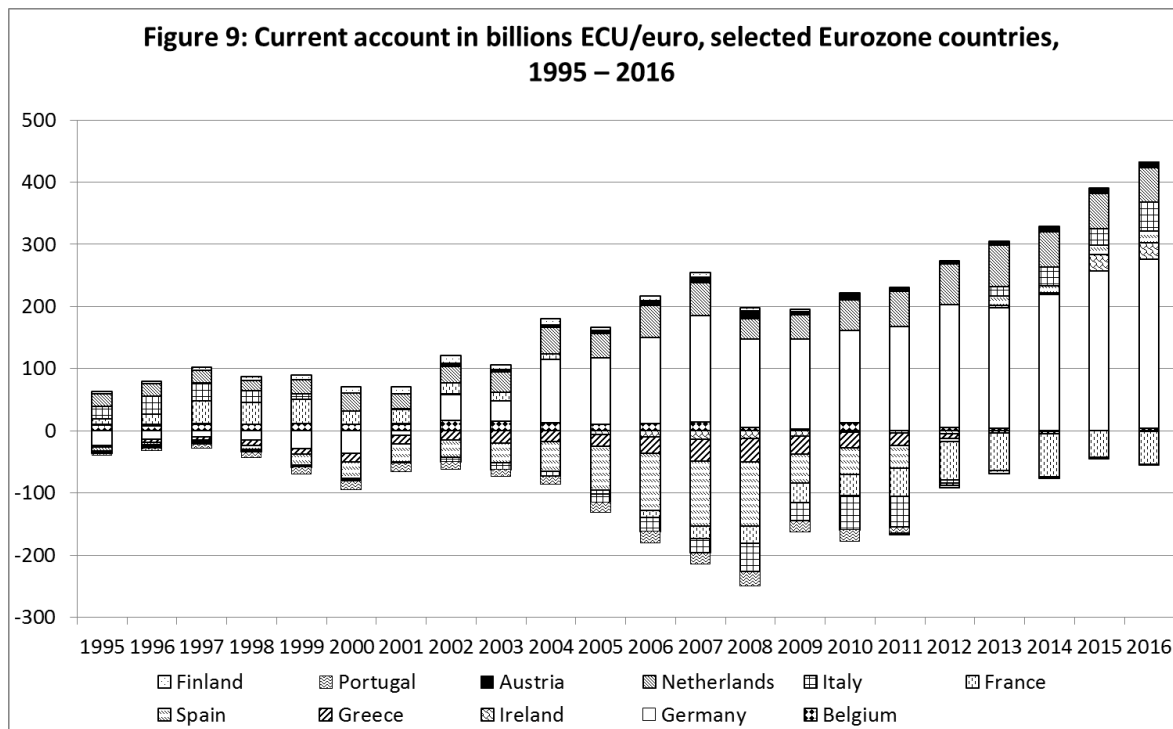
Source: European Commission (2017), author's calculations

Figure 8: General government gross consolidated debt relative to GDP in Eurozone member countries, in percent, 1995-2016



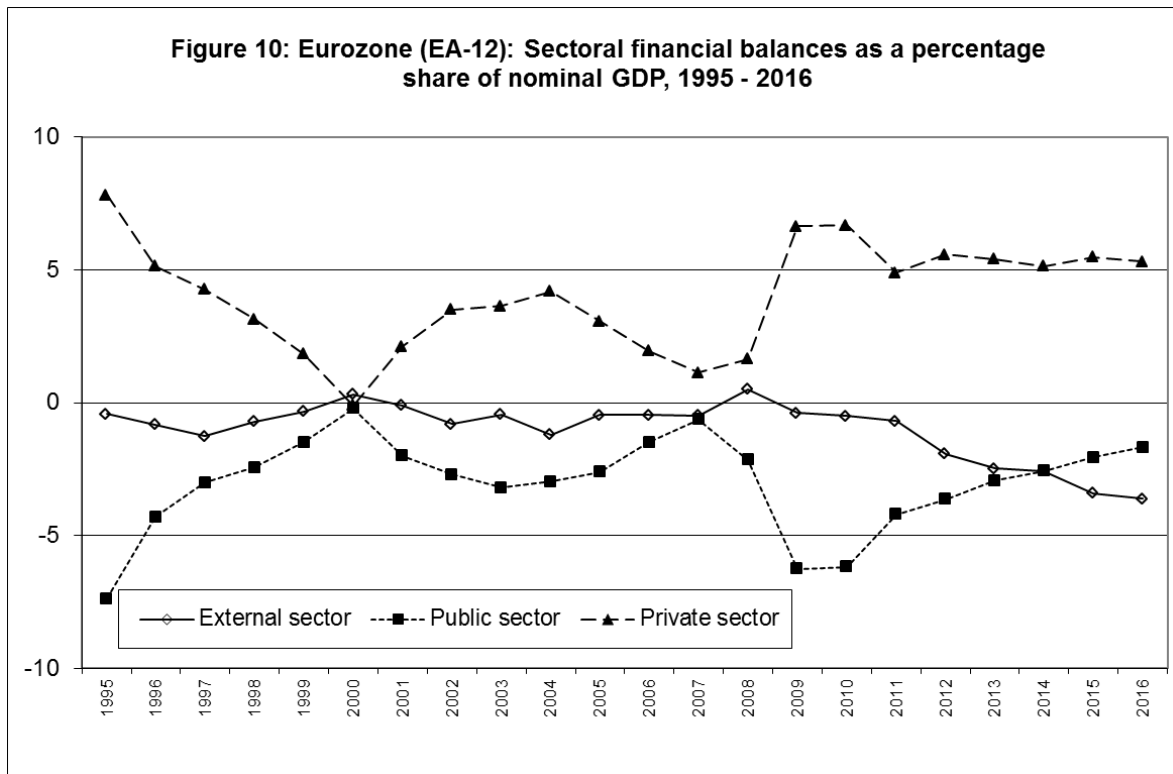
Source: European Commission (2017), author's calculations

The effects of austerity policies for the current account balances of the Eurozone member countries can be seen in Figure 9. Before the crisis the current account of the core Eurozone with the rest of the world was more or less balanced and member countries' current account deficits and surpluses cancelled each other out. Since the start of the euro crisis this has changed and, with the exception of France, all the core Eurozone countries are now running close to balanced (Greece, Portugal, Finland) or even (huge) surpluses in their current accounts. The main reason for this has been, of course, the decline in imports due to weak domestic demand as a consequence of austerity policies and more unequal income distribution, on the one hand, and the improvement of price competitiveness due to wage restraint favouring price elastic demand for exports, on the other hand. The core Eurozone, as one of the biggest economic areas of the world, has thus become a free-rider on world demand generated elsewhere. Whereas the current account surplus of the EA-12 stood at 0.5 per cent in 2010, it has now risen up to 3.6 per cent in 2016.

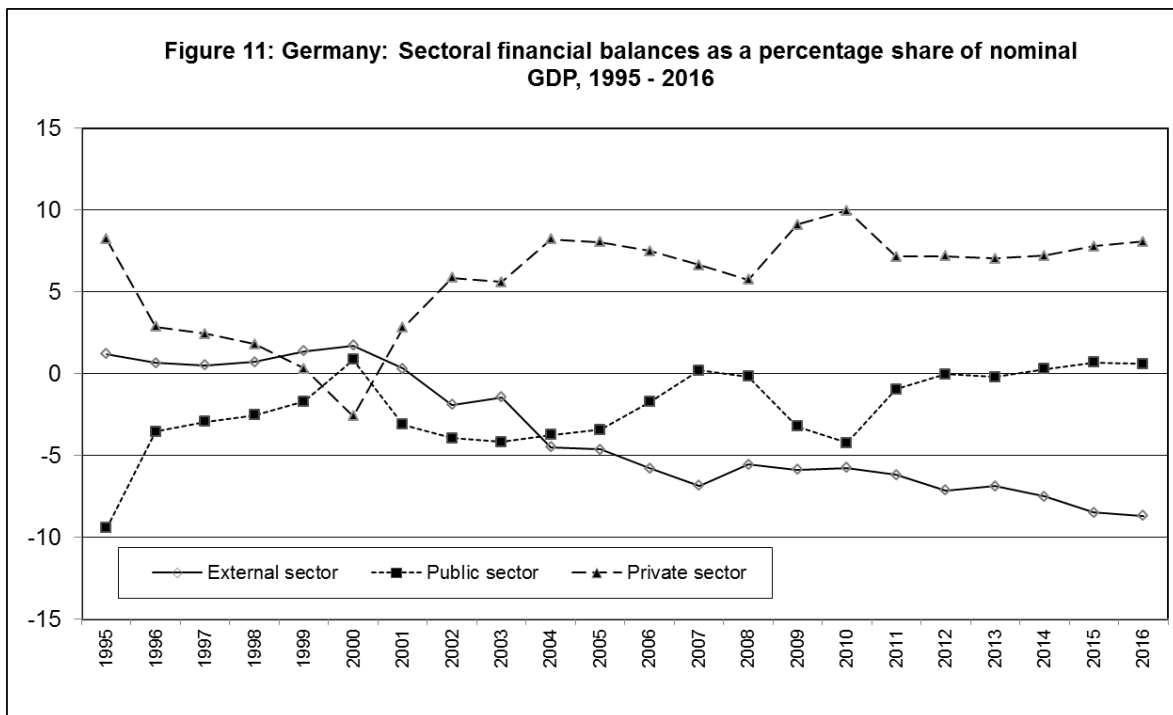


Source: European Commission (2017)

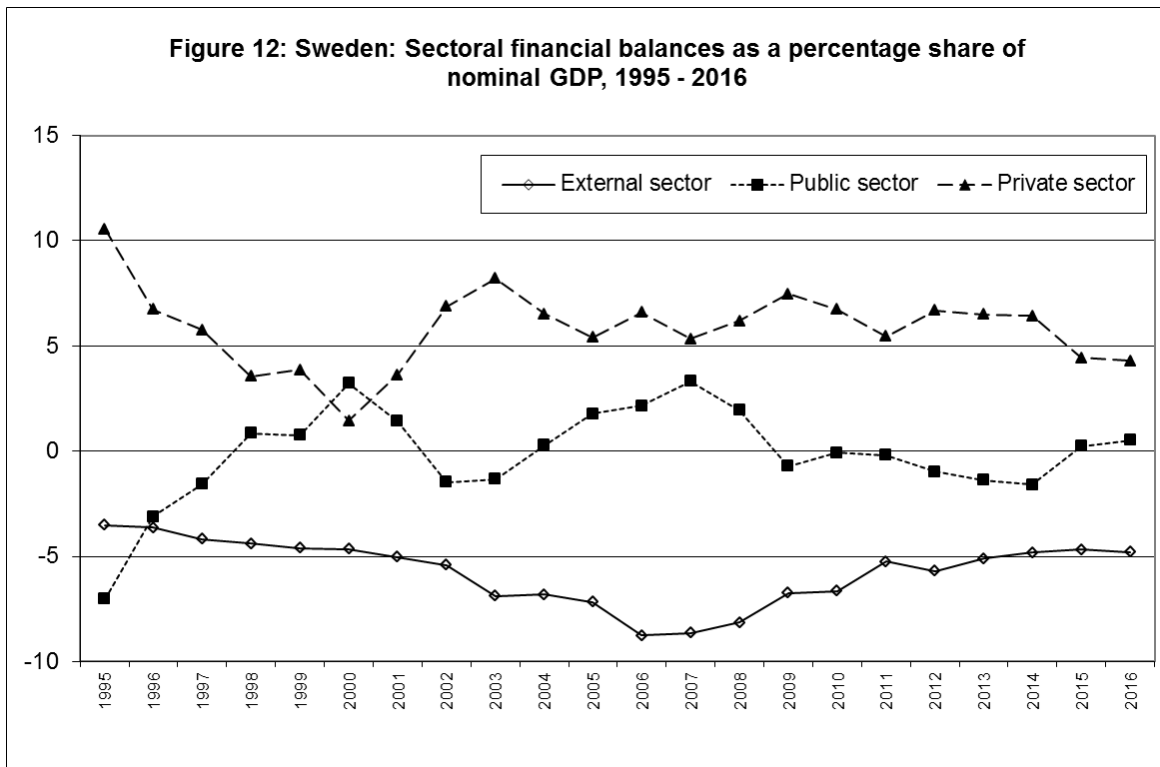
Examining the financial balances of the main macroeconomic sectors, it becomes clear that the Eurozone as a whole (Figure 10) has become similar to its biggest member country, Germany (Figure 11), and even to a small open economy like Sweden (Figure 12), each of them being classified as 'export-led mercantilist', both before and after the crisis (Dodig/Hein/Detzer 2016, Hein 2016b). In each case, after the crisis we observe a high private sector financial surplus of around 5 per cent of nominal GDP, even 8 per cent of nominal GDP in Germany, accompanied by roughly balanced public budgets in Germany and in Sweden and a slight public deficit in the case of the core Eurozone. To make this possible, in each case huge foreign sector financial deficits, and hence current account surpluses of the region or country in question, are required in the core Eurozone of more than 3.5 per cent of GDP, in Sweden of close to 5 per cent and in Germany of even more than 8.5 per cent. These current account surpluses require current account deficits, or financial surpluses of the respective external sectors, in other countries and regions of the world economy. As can be seen, the USA and the UK are among these countries and regions (Figures 13 and 14), together with some emerging market economies, as has been analysed in Dodig/Hein/Detzer (2016). In the USA and the UK, the external sector surpluses and hence the current account deficits, have been absorbed by the government sector deficits, and in the UK recently also by a slight private sector deficit. Therefore, government sector deficits in these countries have not only stabilised the respective domestic demand but have also provided the required demand for the external surpluses of the export-led mercantilist countries and regions and have thus stabilised world demand.



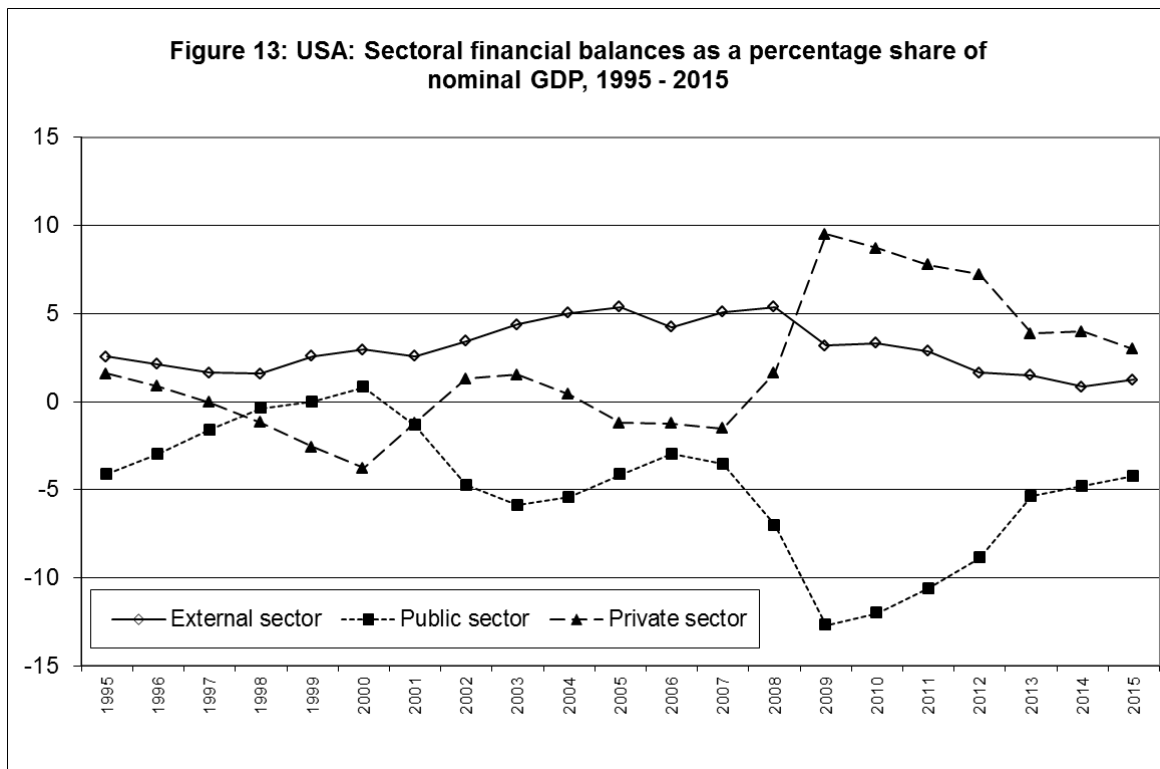
Source: European Commission (2017), author's calculations



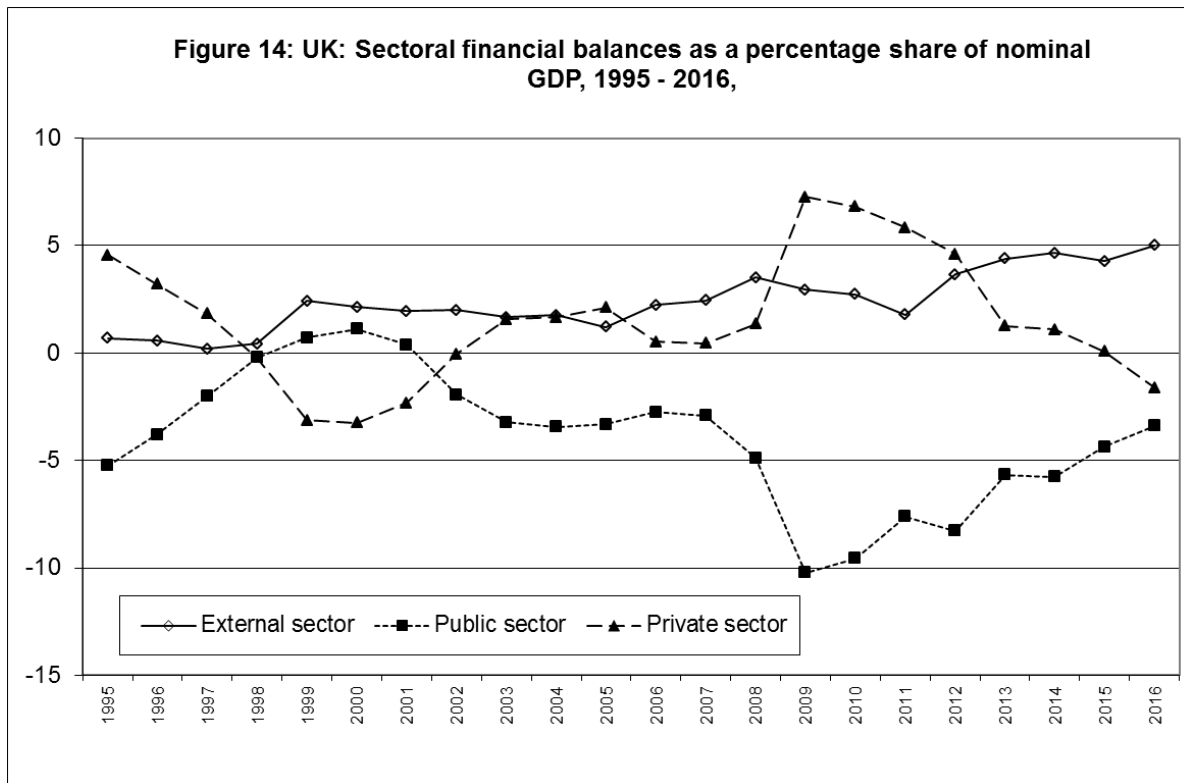
Source: European Commission (2017), author's calculations



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The risks of such a global constellation are obvious. A tendency towards export-led mercantilist strategies pursued by major regions of the world economy, like the Eurozone, which is currently driven by austerity and deflationary stagnation policies, means that the world economy is facing an aggregation problem. It will become increasingly difficult to generate the related current account deficits in other regions of the world. The choice of this model of development will thus enforce tendencies towards stagnation in the global economy. And to the degree that global demand stabilisation has to rely on public sector financial deficits in countries like the USA and the UK, there are the risks and dangers of politically induced debt ceilings and debt brakes for the public sector, which, if put in place in these countries, will then negatively affect global demand and growth.⁷

3. A Steindlian model of growth and 'stagnation policy'

Analysing the shift from the post-war Golden Age period of modern capitalism with high growth and low unemployment towards the neo-liberal period with low growth and high unemployment since the mid-1970s, Joseph Steindl (1979) highlighted the switch towards 'stagnation policy'. He had already referred to this change in policy three years earlier: 'thus we witness stagnation not as an incomprehensible fate, as in the 1930s, but stagnation as policy' (Steindl 1976, p. xvii). In this context, Steindl (1979) refers to Kalecki's (1971) *Political Aspects of Full Employment*, in which Kalecki argues that, although governments might know

⁷ For further more detailed analysis of the risks for the world economy, including foreign debt problems of emerging market economies running current account deficits as counterpart to the surpluses in the export-led mercantilist economies, see for example Dodig/Hein/Detzer (2016).

how to maintain full employment in a capitalist economy, they will not do so, because of capitalists' opposition. Whereas in Kalecki (1971, p. 144), the opposition of the capitalist class towards full employment policies gave rise to a 'political business cycle', Steindl (1979, p. 9) argues that business opposition towards full employment policies generates a 'political trend' causing or contributing to stagnation. In the course of the 1970s, governments, facing full employment and increasing rates of inflation, moved away from targeting full employment by means of active demand management towards targeting price stability by means of restrictive monetary policies and containing public deficits and debt.

In order to identify the main channels through which governments can affect the long-run trend through stagnation policy, we have to briefly recapitulate the distribution and growth model, which Steindl (1952, chapter XIII) had suggested. What we present here is based on Dutt's (2005) interpretation and it makes some further simplifications.⁸ Since Steindl's work, together with Kalecki's, can be seen as the foundations of what is today known as the neo- or post-Kaleckian distribution and growth theory, it should not come as a surprise that the result will bear close similarities with these modern Kaleckian/Steindlian distribution and growth models.⁹

Let us consider a closed economy in which just one type of commodity is produced, which can be used for consumption and investment purposes. For a given technology or state of technological knowledge the relationship between the employed volume of labour (L) and real output (Y) is fixed so that we get a constant labour-output ratio (a), i.e. there is no overhead-labour. The capital-potential output ratio (v), the relation between the real capital stock (K) and potential real output (Y^p), is also constant for a given technology, and the capital stock is assumed not to depreciate. When introducing technological progress below, we will assume Harrod neutrality, that is, a fall in the labour-output ratio but a constancy of the capital-potential output ratio; capital intensity and labour productivity for a given rate of capacity utilisation will grow at the same rate. The rate of capacity utilisation (u) is given by the relation between actual real output and potential real output and is an endogenous variable in the model.

The goods market is dominated by oligopolies, which set prices (p) according to a mark-up (m) on unit labour costs, which are constant up to full capacity output (equation 1). The mark-up is determined by the degree of price competition in the goods market, by overhead costs and by the bargaining power of workers and trade unions. The profit share (h), i.e. the proportion of profits (Π) in nominal output (pY), is therefore determined by the mark-up (equation 2). The mark-up and the profit share may become elastic with respect to overhead costs, and thus to the rentiers' rate of return on equity and bonds (ρ), which is a composite of the interest rate and the dividend rate, as will be explained further below. Alternatively, a change in the outside finance-capital ratio (γ) with a constant rentiers' rate of return may have the same effect, as will also become clear below. The profit rate (r) relates the annual flow of profits to the nominal capital stock and can be decomposed into

⁸ For more elaborated and complicated reinterpretations of Steindlian distribution and growth models, see for example Dutt (1995) and Flaschel/Skott (2006).

⁹ See, for example, the overviews in Blecker (2002), Dutt (1990) and Hein (2012, 2014).

the rate of capacity utilisation, the profit share, and the inverse of the capital-potential output ratio (equation 3):

$$(1) \quad p = [1 + m(\rho, \gamma)]^{\omega a}, \quad m > 0, \frac{\partial m}{\partial \rho} \geq 0, \frac{\partial m}{\partial \gamma} \geq 0,$$

$$(2) \quad h = \frac{\Pi}{pY} = 1 - \frac{1}{1 + m(\rho, \gamma)}, \quad \frac{\partial h}{\partial \rho} \geq 0, \frac{\partial h}{\partial \gamma} \geq 0,$$

$$(3) \quad r = \frac{\Pi}{pK} = \frac{\Pi}{pY} \frac{Y}{Y^p} \frac{Y^p}{K} = hu \frac{1}{v}.$$

The pace of accumulation and growth in our model is determined by firms' decisions to invest, independently of saving, because firms have access to finance for production purposes endogenously created by the banking sector 'out of nothing' – which is not explicitly modelled here. We assume that long-term finance of the capital stock consists of firms' accumulated retained earnings (E_F), long-term credit granted by rentiers (B), and equity issued by the firms and held by rentiers (E_R) (equation 4). Equity and debt are measured at constant issuing prices – capital gains are not considered here. The rentiers' share in the capital stock, the outside finance-capital ratio, is given by γ (equation 5), whereas ϕ denotes the accumulated retained earnings-capital ratio or the inside finance-capital ratio (equation 6). Total profits (Π) divide into firms' retained profits (Π_F), on the one hand, and dividends plus interest paid to rentiers' households (R), on the other hand (equation 7). Interest payments to rentiers' households are given by the rate of interest and the stock of debt, and dividend payments by the dividend rate and the stock of equity held by rentiers' households. Following Steindl (1952, p. 217) and Dutt (2005), we could assume that the interest rate and dividend rate are equal, such that the rentiers' rate of return (ρ) determining rentiers income (equation 8) would be representing these two rates. However, although we are not interested in considering this here, we can also assume that the interest rate and dividend rate differ and the rentiers' rate of return is then the weighted average of these two rates, with the weights given by rentiers' portfolio choice:

$$(4) \quad pK = B + E_R + E_F,$$

$$(5) \quad \gamma = \frac{B + E_R}{pK},$$

$$(6) \quad \phi = \frac{E_F}{pK},$$

$$(7) \quad \Pi = \Pi_F + R,$$

$$(8) \quad R = \rho(E_R + B).$$

When it comes to consumption and saving decisions, Steindl's (1952) model distinguishes between firms, retaining profits which are saved by definition, and households receiving incomes in terms of wages, dividends and interests, which are partly consumed and partly saved. However, in his later work, Steindl (1979, 1985, 1989) follows Kalecki's worker-capitalist distinction rather than the firm-household classification. Here, we distinguish between firms, workers' and capitalists'/rentiers' households. In order to simplify the analysis, we assume a classical saving hypothesis, i.e. workers do not save. The part of profits retained is completely saved by definition. The part of profits distributed to rentiers' households, the interest and dividend payments, is used by those households according to their propensity to save (s_R). Therefore, we get the saving-capital rate (σ) in equation (9), which relates total saving to the nominal capital stock:

$$(9) \quad \sigma = \frac{S}{pK} = \frac{\Pi - R + s_R R}{pK} = h \frac{u}{v} - (1 - s_R)\rho\gamma, \quad 0 < s_R \leq 1.$$

$$(10) \quad g = \frac{pI}{pK} = \alpha + \omega\hat{y} + \beta(u - u_0) + \theta \left(h \frac{u}{v} - \rho\gamma \right), \quad \beta, \theta, \omega > 0, \quad \theta < 1,$$

$$(11) \quad g = \sigma,$$

$$(12) \quad \frac{\partial \sigma}{\partial u} - \frac{\partial g}{\partial u} > 0 \quad \Rightarrow \quad (1 - \theta) \frac{h}{v} - \beta > 0.$$

The investment function (g), relating net investment (I) to the capital stock (equation 10), includes several of Steindl's arguments mentioned in the previous section. Similar to Kalecki's theories of investment (Hein, 2014, chapter 5.6; Steindl, 1981a), two major determinants are (expected) demand and internal means of finance. For the former, Steindl takes the deviation of the realised rate of capacity utilisation from the planned rate of utilisation ($u - u_0$) as an indicator. The latter determinant is given by retained profits, as a difference between total profits and profits distributed to rentiers in terms of interest and dividends, normalised by the capital stock, and hence by the rate of profit, the rentiers rate of return and the outside finance-capital ratio. Of course, the argument for including internal means of finance into the investment function is provided by Kalecki's (1937) 'principle of increasing risk'. An increase in the rentiers' rate of return, i.e. of the interest rate and/or the dividend rate, or the rise in the outside finance-capital ratio each have a negative effect on capital accumulation. We have included a constant (α) into the investment function, which may be taken to capture autonomous investment expenditures, as well as 'animal spirits' of

firms or management driving investment decisions. In a more extended model, α may also be taken to represent autonomous and deficit-financed government expenditure growth. Finally, we can include the effects of technological progress and innovations on capital accumulation, which Steindl (1952) had ignored in his model but conceded in his later work, and highlighted in Steindl (1981b), in particular. Therefore, we have added a positive effect of innovation and (potential) labour productivity growth (\hat{y}), because technological progress is (at least partially) capital-embodied. Let us also assume that technological progress is Harrod-neutral and that the capital-potential output ratio hence remains constant. Equation (11) provides the goods market equilibrium condition, i.e. the equality of saving and investment decisions, and (12) the usual Keynesian/Kaleckian stability condition, which requires the saving rate to respond more vigorously to a change in the rate of capacity utilisation than the rate of capital accumulation.

Taking technological progress to be exogenous for the moment, the goods market equilibrium rates of capacity utilisation, capital accumulation and profit are as follows:

$$(13) \quad u^* = \frac{\alpha + \omega\hat{y} - \beta u_0 + \rho\gamma(1 - s_R - \theta)}{(1 - \theta)\frac{h}{v} - \beta},$$

$$(14) \quad g^* = \frac{(\alpha + \omega\hat{y} - \beta u_0)\frac{h}{v} + \rho\gamma\left[\beta(1 - s_R) - \theta s_R \frac{h}{v}\right]}{(1 - \theta)\frac{h}{v} - \beta},$$

$$(15) \quad r^* = \frac{[\alpha + \omega\hat{y} - \beta u_0 + \rho\gamma(1 - s_R - \theta)]\frac{h}{v}}{(1 - \theta)\frac{h}{v} - \beta}.$$

In this paper we will not touch upon the endogenous dynamics of the outside finance-capital ratio and its stability properties, the potential for ‘paradoxes of debt’ or ‘paradoxes of outside finance’, and so on. The interested reader is referred to the discussion based on similar models, like for example in Dutt (1995), Hein (2010; 2012, chapter 3; 2013), Sasaki/Fujita (2012) and Franke (2016). We shall also not deal with the question of whether an equilibrium rate of utilisation (u^*) deviating from firms’ target rate of utilisation (u_0) should be considered as an equilibrium beyond the short run. Steindl (1952, p. 12, emphasis in the original) is quite explicit on that issue, when he argues that ‘(t)he degree of utilisation actually obtaining in the long run, we must conclude, is no safe indication of the *planned* level of utilisation’. For a discussion of the Marxian and Harrodian critique and a presentation of Kaleckian/Steindlian arguments in favour of the treatment of the rate of capacity utilisation as an endogenous variable beyond the short run, the interested reader is referred to Hein/Lavoie/van Treeck (2011, 2012) and Hein (2014, chapter 11).

From equations (13) – (15), the effects of changes in α , $\omega\hat{y}$, s_R and u_0 on the goods market equilibrium rates of capacity utilisation, capital accumulation and profit can be easily identified. A fall in animal spirits or in the growth of autonomous investment, also in the growth of autonomous consumption, government deficit spending or exports in more elaborated models, have negative effects on economic activity, growth, and the rate of profit. A lower rate of technological progress and innovations, indicated by (potential) labour productivity growth, or a lower responsiveness of investment towards technological progress have contractive effects on all equilibrium values as well. The same is true for a higher propensity to save out of rentiers' income. This means that the paradox of thrift is also valid for Steindl's approach. Additionally, a higher target rate of utilisation of firms has depressive effects on capacity utilisation, capital accumulation and the profit rate. For the effects of changes in the profit share, and hence in functional income distribution, we get the following results:

$$(13a) \quad \frac{\partial u^*}{\partial h} = \frac{-(1-\theta)\frac{u}{v}}{(1-\theta)\frac{h}{v} - \beta} < 0,$$

$$(14a) \quad \frac{\partial g^*}{\partial h} = \frac{-\beta\frac{u}{v}}{(1-\theta)\frac{h}{v} - \beta} < 0,$$

$$(15a) \quad \frac{\partial r^*}{\partial h} = \frac{-\beta\frac{u}{v}}{(1-\theta)\frac{h}{v} - \beta} < 0.$$

A rise in the profit share thus has negative effects on the equilibrium rates of capacity utilisation, capital accumulation, and profit. Demand and growth in the Steindlian model are wage-led, and for the rate of profit we have the 'paradox of costs', i.e. a higher wage share and thus higher real unit labour costs trigger a higher profit rate. We will finally take a look at the effects of changes in our financial variables, the rentiers' rate of return and the outside finance-capital ratio:

$$(13b) \quad \frac{\partial u^*}{\partial \rho} = \frac{\gamma(1-s_R-\theta) - (1-\theta)\frac{u}{v}\frac{\partial h}{\partial \rho}}{(1-\theta)\frac{h}{v} - \beta},$$

$$(13c) \quad \frac{\partial u^*}{\partial \gamma} = \frac{\rho(1 - s_R - \theta) - (1 - \theta) \frac{u}{v} \frac{\partial h}{\partial \gamma}}{(1 - \theta) \frac{h}{v} - \beta},$$

$$(14b) \quad \frac{\partial g^*}{\partial \rho} = \frac{\gamma \left[\beta(1 - s_R) - \theta s_R \frac{h}{v} \right] - \beta \frac{u}{v} \frac{\partial h}{\partial \rho}}{(1 - \theta) \frac{h}{v} - \beta},$$

$$(14c) \quad \frac{\partial g^*}{\partial \gamma} = \frac{\rho \left[\beta(1 - s_R) - \theta s_R \frac{h}{v} \right] - \beta \frac{u}{v} \frac{\partial h}{\partial \gamma}}{(1 - \theta) \frac{h}{v} - \beta},$$

$$(15b) \quad \frac{\partial r^*}{\partial \rho} = \frac{\gamma(1 - s_R - \theta) \frac{h}{v} - \beta \frac{u}{v} \frac{\partial h}{\partial \rho}}{(1 - \theta) \frac{h}{v} - \beta},$$

$$(15c) \quad \frac{\partial r^*}{\partial \gamma} = \frac{\rho(1 - s_R - \theta) \frac{h}{v} - \beta \frac{u}{v} \frac{\partial h}{\partial \gamma}}{(1 - \theta) \frac{h}{v} - \beta}.$$

With interest- and dividend payments-inelastic mark-ups and profit shares, a rise in the rentiers' rate of return or an increase in the outside finance-capital ratio will re-distribute income from firms which do not consume to rentiers who consume at least a part of the income. This will boost consumption demand and through the accelerator in the investment function also investment demand and hence capital accumulation. However, the drain of firms' internal means of finance will have a partially negative effect on capital accumulation. The overall or equilibrium effect will thus depend on the relative strengths of each of these partial effects. Three potential cases or regimes can be distinguished: the 'normal case' (Lavoie 1995) and a 'debt-burdened' economy (Taylor 2008, p. 275), in which an increase in the rentiers' rate of return or in the outside finance-capital ratio depresses the economy; the 'intermediate case', in which the effects on the rates of capacity utilisation and profit are expansionary, but the effects on the rate of capital accumulation and growth are depressing; and finally a 'puzzling case' (Lavoie 1995) and a 'debt-led' economy (Taylor 2008, p. 275), in which we have overall expansionary effects of a rising rentiers' rate of return or outside finance-capital ratio. However, if we include the effects on functional income distribution,

since our economy is wage led, expansionary effects of a rising rentiers' rate of return or the outside finance-capital ratio become less likely, but not impossible.¹⁰

So far, we have only discussed the demand side of the Steindlian distribution and growth model and have introduced innovations and technological change as an exogenous variable driving investment and growth. However, starting with Rowthorn (1981), Dutt (1990, chapter 5), Taylor (1991, chapter 10) and Lavoie (1992, chapter 6), post-Keynesian authors have introduced endogenous technological change and labour productivity growth into Steindlian/Kaleckian distribution and growth models, as reviewed and elaborated on in Hein (2014, chapter 8). Relying on Kaldor's (1957, 1961) technical progress function and/or on Kaldor's (1966) Verdoorn's Law, labour productivity growth is assumed to be positively affected by capital stock growth, due to capital-embodied technological change, and/or demand growth and hence the rate of capacity utilisation, due to dynamic returns to scale. Following Marx (1867) and Hicks (1932), several authors have also integrated a wage-push variable into the productivity growth function of the model, arguing that a higher real wage rate or a higher wage share induces capitalists to speed up the implementation of labour augmenting technological progress in order to protect the profit share. If we add a summary variable (η) representing the effect of 'learning by doing', on the one hand, and basic or autonomous innovations, on the other hand, we get the following function for labour productivity growth:

$$(16) \quad \hat{y} = \eta + \varepsilon g - \psi h, \quad \eta, \varepsilon, \psi > 0.$$

Plugging equation (16) into equation (14) we receive the long-run equilibrium rate of capital accumulation and growth:

$$(17) \quad g^{**} = \frac{\alpha - \beta u_0 + \omega(\eta - \psi h) + \rho\gamma \left[\beta(1 - s_R) - \theta s_R \frac{h}{v} \right]}{(1 - \theta) \frac{h}{v} - \beta - \omega\varepsilon}.$$

Using equations (16) and (17) we finally arrive at our long-run equilibrium rate of productivity growth:

¹⁰ Overall it seems that Steindl would have endorsed the 'normal case', 'debt-burdened' regime as the one that dominates in reality. In particular in his latest contributions, he relates stagnation tendencies and stagnation policy to an increasing dominance of the financial sector in modern capitalist economies. In Bhaduri/Steindl (1985), stagnation policies are associated with 'the rise of monetarism as a social doctrine', because monetarism is inherently linked to restrictive fiscal and monetary policies, which are supported by banks and the financial sector (or the rentiers). The application of monetarist policies thus indicates a shift of powers from industry to banks, or from the non-financial sector of the economy to the financial sector. In Steindl (1989), it is stressed that, starting in the 1980s, the tendencies towards weak investment and stagnation have then been amplified by a shift of the interest of corporations and their managers from production towards finance and an increasing role of financial investment in comparison to real investment, an idea which in the 2000s has re-emerged in the literature on financialisation and investment (Hein 2012). However, Steindl has not seen the medium-run potential of an increasing dominance of finance to stimulate the economy, through debt-financed consumption in particular.

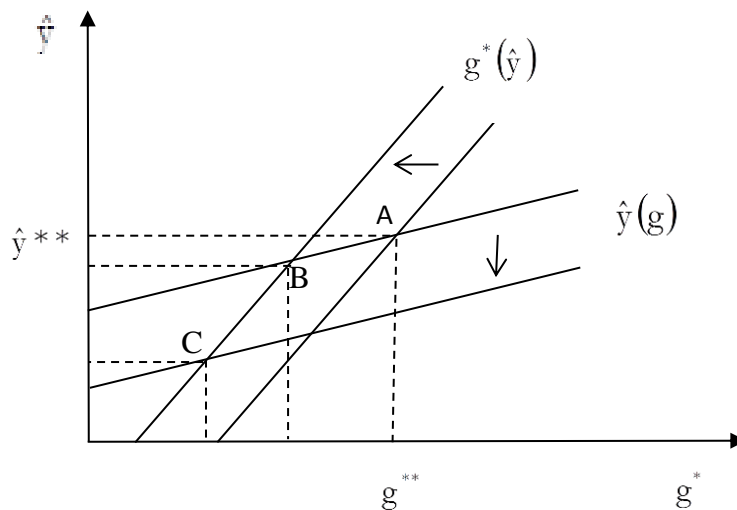
$$(18) \quad \hat{y}^{**} = \frac{(\eta - \psi h) \left[(1 - \theta) \frac{h}{v} - \beta \right] + \varepsilon \left\{ \alpha - \beta u_0 + \rho \gamma \left[\beta (1 - s_R) - \theta s_R \frac{h}{v} \right] \right\}}{(1 - \theta) \frac{h}{v} - \beta - \omega \varepsilon}.$$

Table 1 summarises the effects of changes in exogenous variables and parameters on the long-run equilibrium rates of capital accumulation and productivity growth derived from our Steindlian demand-driven endogenous growth model.

Table 1: Responses of the long-run equilibrium rates of capital accumulation and productivity growth towards changes in exogenous variables and parameters		
	g^{**}	\hat{y}^{**}
α	+	+
u_0	-	-
s_R	-	-
h	-	-
ρ	- (normal, debt-burdened) + (puzzling, debt-led)	- (normal, debt-burdened) + (puzzling, debt-led)
γ	- (normal, debt-burdened) + (puzzling, debt-led)	- (normal, debt-burdened) + (puzzling, debt-led)
η	+	+

Graphically our long-run equilibrium is displayed in Figure 15, which shows the long-run endogenous growth equilibrium generated by equations (14) and (16). Any fall in the goods market equilibrium rate of capital accumulation, that is a leftwards shift in the g^* -function, triggered by a fall in α , a rise in u_0 , s_R or h , as well as a rise in ρ or γ in the 'normal', 'debt-burdened' case, will also cause a lower long-run equilibrium rate of productivity growth and hence of potential growth through the Kaldor technical progress- or Verdoorn-effect. The economy will move from the equilibrium in point A to the one in point B. And if the fall in capital accumulation is caused by a higher profit share, the directly negative impact on productivity growth has to be included as well, and the economy will move to the long-run equilibrium in point C with even lower capital stock, output and productivity growth.

Figure 15: Stagnation with endogenous productivity growth



In terms of our model, the major channels through which stagnation policies depress the economy can now be summarised as follows:

- decreasing autonomous government expenditure growth, as well as replacing aggregate demand management policies by policies of structural reforms weakening overall private expectations, which then each lead to a decrease in α ;
- lowering productivity enhancing public investments in R&D, which cause a fall in η , the autonomous component in the productivity growth function;
- weakening workers' and trade unions' bargaining power through policies of (labour) market deregulation, abandoning aggregated demand management and accepting high rates of unemployment, as well as by higher interest and hence overhead costs, which will each raise the total profit share h ;
- generating rising inequality in the distribution of incomes through various channels, as well as generating higher uncertainty triggering precautionary saving, which will lead to a rise in the average propensity to save ($s = h - (1 - s_R)R/pY$);
- raising real rates of interest through tight monetary policies and dividend rates through structural reforms in favour of shareholders, which then cause rentiers' rates of return ρ and real debt-capital and outside-finance capital ratios of firms γ to rise with depressing effects in the 'normal case' and 'debt-burdened' regimes.

From Steindl's analysis of stagnation policy, it follows that anti-stagnation policies would have to focus on the following areas (see also Guger/Marterbauer/Walterskirchen 2006):

- stabilising and raising public autonomous expenditure growth, as well as discretionary anti-cyclical fiscal policies, in order to stabilise effective demand growth, prevent deflation with its negative effects on private demand, and to improve the general climate for private sector investment and consumption;
- raising growth-enhancing public investment, focusing on infrastructure, technology, R&D and education expenditures, in order to stimulate private investment and R&D outlays;

- stabilising and raising the wage share through full employment policies improving workers' bargaining power, by low interest rate policies reducing overhead costs, and by the re-regulation of the financial sector reducing the power and income claims of rentiers and shareholders;
- lowering the private households' average propensity to save by means of redistributing income, both pre-tax via higher wage shares and a more compressed wage structure and after-tax by progressive taxation and social transfers, as well as by removing uncertainty triggering precautionary saving;
- and, going beyond our simple model, improving international economic and monetary policy coordination in order to avoid severe current account imbalances, 'beggar thy neighbour' strategies, on the one hand, and rising indebtedness in foreign currencies, on the other hand.

In the following sections we will explain that the current macroeconomic policy setup in the Eurozone can indeed be understood as a specific version of stagnation policy, and that it therefore needs to be fundamentally revised to overcome the current stagnation tendencies which have become a major threat to the survival of the euro.

4. 'Stagnation policy' made in the Eurozone: main failures of Eurozone macro policies

As has extensively been analysed by Arestis/Sawyer (2011, 2013), it can be argued that the institutional framework for macroeconomic policies in the Eurozone, the relationship of macroeconomic policy actors and their main strategies have broadly followed the implications and recommendations of the mainstream NCM, which had emerged as a synthesis of New Classical and New Keynesian economics at the end of the 1990s (Clarida/Gali/Gertler 1999, Goodfriend/King 1997). And Guger/Marterbauer/Walterskirchen (2006, p. 434) have convincingly shown even before the recent crisis that this framework can be viewed as a framework for stagnation policy from a Steindlian perspective: 'Economic policy in the EU seems to have an inherent anti-growth and pro-unemployment bias'.¹¹ Their arguments are fully in line with our view on the stagnationist impact of the NCM applied to the Eurozone.

As summarised in Table 2, according to the NCM approach, long-run equilibrium employment and economic activity are given by the NAIRU (Non-Accelerating Inflation Rate of Unemployment), which itself is determined by labour market institutions and the social benefit system affecting the flexibility of nominal and real wages. Since the NAIRU can be understood as an indicator of workers' bargaining power and distributional aspirations, lowering the NAIRU requires liberalisation and deregulation of the labour market and presumably 'employment-friendly' adjustments of the social benefit system activating the idle labour force in order to put competitive pressure on employees and trade unions. This has been the main focus of the European coordination of member state labour market policies, as contained in the Employment Guidelines, the Broad Economic Policy Guidelines, the Lisbon Agenda, the Europe 2020 Agenda, the Country Specific Recommendations of the

¹¹ In this context they refer to a rather pessimistic outlook of the late Steindl (1988) on the economic perspectives of the EU.

European Semester, and in the course of the crisis in the Memoranda of Understanding with the crisis countries, in particular.

With the long-run equilibrium unemployment being given by the NAIRU, according to the NCM, inflation targeting monetary policies have to adjust actual unemployment to its equilibrium level by means of raising interest rates when unemployment falls short of the NAIRU and inflation is accelerating and lowering interest rates when unemployment exceeds the NAIRU and inflation is decelerating. Therefore, in the long run, monetary policies will only affect inflation but have no impact on unemployment and economic activity. From this theoretical perspective it follows that the primary long-run objective of monetary policy can only be stable inflation, which should be pursued by an independent central bank, as in the case of the European Central Bank (ECB).

Since long-run employment and economic activity are given by the structural features of the labour market and the social benefit system, and any adjustment towards this long-run equilibrium is delegated to the central bank, there is no macroeconomic role left for fiscal policies in the NCM. Therefore, it has to be ensured that fiscal policies, i.e. government fiscal deficits or surpluses, do not interfere with inflation targeting monetary policies. The NCM hence requires balanced government budgets, at least over the cycle. This is what has been the focus of European coordination of member state fiscal policies in the Stability and Growth Pact, and it has been further tightened in the course of the euro crisis with the Six-Pack, the Two-Pack, the Fiscal Compact, and the Memoranda of Understanding imposed on the crisis countries. The role left for national governments is then the implementation of those structural reforms in the labour market and the social benefit system which are thought to reduce the NAIRU.

From the NCM a clear-cut assignment and allocation of macroeconomic policy actors, their instruments and their targets can be derived, and there is no need for ex-ante 'horizontal coordination' among monetary, fiscal and wage/incomes policies. The only coordination which is required in this approach is 'vertical coordination' to ensure that fiscal, labour market and wage policies in the member states follow the NCM implications, as outlined above.

Table 2: Macroeconomic policy recommendations: New Consensus Macroeconomics (NCM) and post-Keynesian(/neo-Kaleckian/Steindlian) macroeconomics (PKM) compared		
	NCM	PKM
Monetary policy	Inflation targeting by means of interest rate policies, which affects unemployment in the short run, but only inflation in the long run	Targets low interest rates, which mainly affect distribution, and stabilise monetary, financial and economic sectors applying other instruments (LLR, credit controls, ABRR, etc.)
Fiscal policy	Supports monetary policy in achieving price stability, balances the budget over the cycle	Real stabilisation in the short and long run with no autonomous deficit target, affects distribution of disposable income
Labour market and wage/incomes policy	Determines the NAIRU in the long run and the speed of adjustment in the short run, focus should be on flexible nominal and real wages	Affects price level/inflation and distribution, focus should be on rigid nominal wages, steady nominal unit labour cost growth and compressed wage structure
International economic policies	Free trade, free capital flows, flexible exchange rates	Regulated capital flows, managed exchange rates, infant industry protection, regional and industrial policies
Co-ordination	Clear assignment in the long run, co-ordination at best only in the short run	No clear assignment, economic policy co-ordination required in the short and the long run, both nationally and internationally

Notes: LLR: Lender of last resort, ABRR: Asset based reserve requirements

These NCM policies applied in the Eurozone have suffered from three major limitations and internal problems. First, in 'normal' times, i.e. in the period before the crisis, from 1999 until 2007, there was no mechanism which prevented rising current account imbalances and divergence among member states. The one and only Eurozone-level macroeconomic policy instrument, the nominal interest rate set by the ECB for the Eurozone as a whole, exacerbated things, since it could only be guided by Eurozone average inflation. This meant below average real interest rates in booming member countries with above average inflation and rising current account deficits, like Spain, and above average real interest rates in

stagnating member states with below average inflation and rising current account surpluses, like Germany. This in turn contributed to even further divergence, since 'normal case' conditions seem to have prevailed. Furthermore, the introduction of structural reform policies in stagnating countries, in order to reduce the respective NAIRU in line with the NCM, further weakened domestic demand in these countries, and thus contributed to stagnation tendencies – and rising current account surpluses due to the dampening effect on imports, in particular in Germany.

Second, when the Great Recession hit the Eurozone as a whole in 2008/9, it became clear that nominal interest rate policies from the ECB were insufficient to stabilise aggregate demand and economic activity. There are several well-known reasons for that. There is the zero lower bound for the nominal short-term ECB lending rate, the main refinancing rate, which imposes a downward constraint on interest rate policies. Furthermore, lowering the short-term policy rate in a deep recession with rising uncertainty and rising default risks, and hence with increasing risk and liquidity premia for commercial banks and other financial intermediaries, will not be sufficient to bring down long-term interest rates, which are important for investment decisions. And finally, even if central banks manage to reduce long-term interest rates, i.e. by means of direct intervention in financial markets ('quantitative easing'), this is not sufficient to stimulate investment under the conditions of depressed demand expectations, since it is like 'pushing on a string'.

Third, and the main reason why the financial crisis and the Great Recession turned into the euro crisis in 2010, the role of the ECB as a 'lender of last resort', not only for the banking sector, but also for member state governments, was unclear at the beginning of the crisis. Therefore, when governments went into debt in order to stabilise the financial sector, and also the real economy when the limits of ECB monetary policies became obvious, some interest rates on member state debt started to rise and put these governments under the pressure of financial markets, in particular in Greece, Ireland, Portugal, and then also in Spain and Italy. As a consequence, the ECB gradually moved towards becoming a lender of last resort and guarantor of government debt of member states. The major step, of course, was taken when the President of the ECB, Mario Draghi, in 2012 announced that '(w)ithin our mandate, the ECB is ready to do whatever it takes to preserve the euro'. However, this was later qualified such that the ECB's willingness to intervene in secondary government bond markets, in the context of Outright Monetary Transactions (OMT), was made conditional on the respective countries applying to the EFSF/ESM and introducing macroeconomic adjustment programmes, i.e. austerity policies, since the crisis was interpreted as a sovereign debt crisis. Linking financial rescue measures with austerity policies, however, has been detrimental to recovery in the crisis countries and it has undermined the intended reduction of government debt-GDP ratios, as we have shown above in Section 2.

5. A post-Keynesian economic policy proposal for the Eurozone in line with Steindlian anti-stagnation policy

An alternative macroeconomic policy approach for the Eurozone will have to address and tackle the three areas of limitations and problems of the NCM applied in the Eurozone outlined in Section 4 and it should take into account the implications of the Steindlian model for anti-stagnation policies from Section 3. Such an alternative can be based on the post-Keynesian macroeconomic policy approach (Arestis 2013, Hein/Stockhammer 2011), which incorporates several Steindlian ideas and implications and which is summarised in Table 2. Following this perspective, economic activity and employment are determined by effective demand, both in the short and in the long run. Each area of macroeconomic policy making has a direct or indirect effect on effective demand and employment, and therefore ex ante 'horizontal coordination' among monetary, fiscal and wage policies is of utmost importance, as is the 'vertical coordination' of decentralised member state policies in the areas of fiscal and wage policies in the case of the Eurozone. And these coordinated demand management policies will have to be supplemented by effective regional and industrial policies in order to facilitate the sustainable catch-up of the Eurozone periphery with respect to the core countries. In principle, the European Union and the Eurozone have developed some institutions for this purpose, with the Macroeconomic Dialogue, the European Semester and the financing institutions for regional and industrial policies, such as the European Investment Bank (EIB) and the European Investment Fund (EIF). However, this institutional framework needs to be linked with a new approach towards macroeconomic and development policies, as will be explained below.

5.1 Monetary policy

According to the modern post-Keynesian approach, central bank interest rate policies should abstain from attempting to fine-tune unemployment in the short run and inflation in the long run, as suggested by the NCM.¹² Interest rate variations have cost and distribution effects. Therefore, central banks may be effective in stopping accelerating inflation in the short run by raising the short-term nominal rate of interest, which will trigger rising long-term rates, finally choking investment and stopping the economic boom. However, in the long run, surviving firms will have to face higher interest rates, which will feed distributional conflict and hence inflation again, because firms will have to cover these rising interest costs. Furthermore, in the case of a recession with falling inflation rates, and possibly deflation, central bank interest rate policies will be ineffective in stimulating the economy in the short run as has been explained in the previous section.

Therefore, central banks, and hence the ECB, should focus on targeting low real interest rates in financial markets, in order to avoid unfavourable cost and distribution effects on firms and workers. A slightly positive long-term real rate of interest, below the long-run rate of productivity growth or real GDP growth, seems to be a reasonable target, since in the long run economies seem to be dominated by 'normal case' conditions. Real

¹² For a discussion of post-Keynesian monetary policy strategies see the survey by Rochon/Setterfield (2007) and the brief review in Hein (2017b).

financial wealth will be protected against inflation, but redistribution of income in favour of the productive sector will take place, which should be favourable for investment, employment and growth. Furthermore, central banks have to act as a 'lender of last resort' during liquidity crises and should be involved in the regulation and supervision of financial markets using other tools than the short-term interest rate. These can include the definition of credit standards for refinancing operations with commercial banks, the implementation of reserve requirements for different types of assets, and even credit controls in order to channel credit into desirable areas and to avoid credit-financed bubbles in certain markets.

Most importantly, the ECB should not only act as a lender of last resort for the banking system, but also unconditionally guarantee the public debt of Eurozone member states. The ECB as a lender of last resort for member state governments would allow these governments to issue debt in their 'own currency' again, and it would thus reduce the pressure imposed by financial markets. The ECB could simply announce that it will intervene unconditionally in secondary government bond markets and provide unlimited liquidity, as soon as the government bond rate of a specific country exceeds the risk-free rate - which is considered to be the rate on German government bonds – by 200 basis points, as De Grauwe (2013) has proposed. I would propose a more country-specific solution: The ECB should announce it will intervene in secondary government bond markets as soon as the nominal rate of interest on government bonds exceeds the medium-run nominal GDP growth rate of the respective country. This would imply country-specific caps on nominal interest rates on government bonds and, to the extent that government bond yields are considered as a benchmark, also for long-term interest rates in the respective countries in general. This should provide the conditions for fiscal policies of the member states to stimulate aggregate demand for the Eurozone as a whole and to contribute to internally rebalancing the Eurozone.

5.2 Wage and incomes policy

In a post-Keynesian macroeconomic policy mix, wage and incomes policies should accept responsibility for nominal stabilisation in particular, that is for stable inflation rates, but will also affect income distribution. As an orientation, nominal wages should rise according to the sum of long-run average growth of labour productivity in the national economy plus the target rate of inflation for the Eurozone as a whole. In the case of actual inflation rates being below the target, such a wage norm would also raise the labour income share during the resulting adjustment process. In the long run, implementing such a wage norm in each of the member states would contribute to equal inflation rates across the Eurozone, and it would prevent mercantilist strategies of individual countries based on nominal wage moderation.

In order to contribute to the rebalancing of the current accounts within the Eurozone at high levels of economic activity by means of re-adjusting relative price competitiveness, wage policies for an intermediate period of time would have to deviate from the norm outlined above. Nominal wage growth in current account surplus countries would have to exceed the norm, whereas nominal wage growth in the current account deficit countries

would have to fall short of this norm, however, without triggering deflation in these countries.

To achieve the nominal wage growth targets, a high degree of wage bargaining coordination at the macroeconomic level, and organised labour markets with strong trade unions and employer associations seem to be necessary conditions. Government involvement in wage bargaining may be required, too. In particular, Eurozone-wide minimum wage legislation could be helpful for nominal stabilisation at the macroeconomic level, apart from its usefulness in terms of containing wage inequality. The European Trade Union Confederation has recommended setting the minimum wage at a level of at least 50 per cent of the average wage or 60 per cent of the median wage in the respective member countries (Schulten 2012). This legal minimum wage would then have to rise according to the rules explained above. Furthermore, legal extensions of wage bargaining agreements throughout an entire industry or sector and other extension mechanisms, as well as public sector bargaining setting the pattern for private sectors, could be helpful for effective wage bargaining coordination.

Although wage bargaining coordination across the Eurozone will have some merits in terms of reducing inequality within member countries, preventing further downward pressures on labour income shares exerted by competitive wage policies and beggar-thy-neighbour strategies, and in terms of harmonising inflation rates in the Eurozone, there will be only limited effects on current account imbalances within the Eurozone. As has been briefly reviewed in Hein/Detzer (2015a, 2015b), several empirical studies based on different models and methods have found that the current account imbalances within the Eurozone have mainly been driven by non-price competitiveness and growth differences, and only to a lesser degree by diverging price competitiveness. This implies that the major burden for internally rebalancing the Eurozone should fall on fiscal policies in the short run, stimulating domestic demand in current account surplus countries in particular, and on structural and regional policies in deficit countries, improving their non-price competitiveness in the medium to long run.

5.3 Fiscal policy – and the role of European industrial and regional policies

In a post-Keynesian coordinated macroeconomic policy mix, fiscal policies should assume responsibility for real stabilisation at non-inflationary full employment levels of economic activity and also for a more equal distribution of disposable income (Arestis/Sawyer 2003, 2004). Through these functions, fiscal policies can also contribute to rebalancing the Eurozone internally. Let me start with the aggregate role of stabilisation. From national accounting we know that ex post the excess of private saving (S) over private nominal investment (I) at a given level of economic activity and employment has to be absorbed by the excess of nominal exports (X) over nominal imports (M) (including the balance of primary income and the balance of income transfers, thus the current account balance) plus the excess of government spending (G) over tax revenues (T): $S-I = X-M+G-T$. Therefore, with balanced current accounts ($X-M = 0$), government deficits in the medium-run perspective have to permanently take up the excess of private saving over private investment ($G-T = S-I$)

in order to maintain a desired level of economic activity and employment, following the functional finance view pioneered by Lerner (1943). Of course, if the private sector is in deficit and the current account is balanced, the government sector has to be in surplus.

From Domar (1944) we know that with a constant government deficit-GDP ratio, the government debt-GDP ratio will converge towards a constant value, which is given by the quotient of the government deficit-GDP ratio and nominal GDP growth, provided that the latter is positive. Furthermore, nominal interest rates falling short of nominal GDP growth and hence of tax revenue growth will prevent government debt services from redistributing income from the average tax payer to the rich government bond holders, which would be detrimental to aggregate demand and growth. That is why targeting low interest rates on government bonds by the central bank is very important.

Following the Steindlian perspective, permanent government deficits should be geared towards public investment in a wider sense (including growth-enhancing public employment), providing the economy with public infrastructure and in particular public education at all levels (pre-schools, schools, high schools, universities) in order to promote structural change towards an environmentally sustainable long-run growth path. Apart from this permanent role of government debt, which also supplies a safe haven for private saving and thus stabilises financial markets, counter-cyclical fiscal policies – together with automatic stabilisers – should stabilise the economy in the face of aggregate demand shocks.

Furthermore, governments should apply progressive income taxes and adopt relevant wealth, property and inheritance taxes, as well as social transfers, which aim at redistribution of income and wealth in favour of low income and low wealth households. On the one hand, this will reduce the excess of private saving over private investment at non-inflationary full employment levels and thus stabilise aggregate demand. Progressive income taxation and relevant taxes on wealth, property and inheritance thus also reduce the requirements for government deficits. On the other hand, redistributive taxes and social policies will improve automatic stabilisers and thus reduce fluctuations in economic activity and the required scale of short-run stabilising fiscal policies.

Applying this general approach to the Eurozone requires a revamped Stability and Growth Pact for the coordination of national fiscal policies, which should focus on medium-run expenditure paths for non-cyclical government spending, and thus a variable which member state governments can indeed control (Hein/Truger/van Treeck 2012). The sum of these expenditure paths should be geared towards stabilising aggregate demand in the Eurozone at non-inflationary full employment levels. This full employment level of economic activity should be associated with a balanced current account with the rest of the world, abandoning the current tendency towards an export-led mercantilist regime in the Eurozone. For each Eurozone member state this would mean that, on average over the cycle and with the medium-run net tax rate in each member country given, the path for non-cyclical government expenditure should be targeted at generating a medium-run or 'structural' government deficit/surplus, balancing the medium-run or 'structural' private sector surplus/deficit at high levels of non-inflationary employment and a roughly balanced

current account of the member states. Automatic stabilisers plus discretionary counter-cyclical fiscal policies could then be applied to fight short-run demand shocks.

Instead of the current 'one-size-fits-all' coordination with respect to target or maximum government deficit- and debt-GDP ratios, this new type of coordination of fiscal policies contains country-specific medium-run target government deficit-GDP ratios, given by the medium-run national private sector financial balances. It would also lead to country-specific government debt-GDP ratios, depending on the respective government deficit-GDP ratios and the nominal GDP growth trends. The expenditure paths for non-cyclical public sector spending of each member country should be coordinated and monitored by the European Commission in the context of the European Semester, and unwillingness to correct deviations should be sanctioned. Ultimately, if member states persistently exceed their country-specific target deficit-GDP ratios, triggering rising national inflation and current account deficits, and if they are unwilling to correct this in the face of fines imposed by the European Commission and the Council of Economic and Finance ministers (Ecofin), the ECB could temporarily suspend its readiness to intervene in the secondary government bond markets of the relevant countries. The threat of rising interest rates on government bonds of the respective countries should induce them to come back to the expenditure path consistent with coordinated fiscal policies in the Eurozone. If mature member states persistently fall short of their country-specific government deficit-GDP ratios, triggering current account surpluses, the relevant fines imposed by the European Commission and the Ecofin could be used for European investment projects, with a focus on the catch-up periphery countries.

Following these recommendations for coordinated fiscal policies should boost aggregate demand for the Eurozone as a whole and contribute to overcoming the current stagnation tendencies by stimulating private demand, investment and growth, as outlined in the Steindlian model in Section 3. It should also contribute to internally rebalancing the Eurozone and prevent increasing current account imbalances in the future. Current account surplus countries would have to apply more expansionary fiscal policies than before and since the crisis, in order to increase domestic demand growth. Together with the temporary acceptance of higher than Eurozone average inflation rates, this should reduce their current account surpluses and reduce the current account deficits of the counterpart deficit countries through the stimulation of their exports. Current account deficit countries would have to reduce inflation in the short run, without driving the economy into deflation and recession, of course. And most importantly, in the medium run, these countries should aim at improving their non-price competitiveness, decreasing the income elasticity of their imports and increasing the income elasticity of their exports, by means of industrial, structural and regional policies.

The latter should be integrated within a European industrial and regional policy strategy aiming at the sustainable catch-up of the periphery with respect to the core. For such an adjustment process, perfectly balanced current accounts between member states cannot be expected and, therefore, the rules for fiscal policy co-ordination outlined above

would have to be modified.¹³ Catch-up countries will and should have a persistent tendency to grow faster than the more mature countries, which, *cet. par.*, will make their imports grow faster than their exports. Therefore, with the Eurozone as a whole running a balanced current account with the rest of the world, internally there would be a tendency for catch-up member countries to run current account deficits, and for more mature countries to run current account surpluses. These current account deficits and surpluses should be tolerated and taken into account in the coordination of fiscal policies. Target medium-run public sector financial balances in the catch-up countries can hence be somewhat lower than implied above, and target medium-run public sector financial balances of mature countries can be somewhat higher. The pre-condition for this is, of course, that higher growth in the catch-up countries can be sustained – and is not driven by financial or housing market bubbles as in the past. Therefore, the direction and the use of the capital inflows into catch-up current account deficit countries should be part of an integrated European industrial and regional development strategy for the periphery. This should include the efficient regulation of and intervention in capital flows to avoid bubble growth, on the one hand, and ‘high road’ development strategies, on the other hand, making use of public investment, both national and European, in infrastructure and education, as well as public development banks and funds (i.e. EIB, EIF, etc.) to support private investment in the respective countries.

6. Conclusions

Empirically, the macroeconomic institutions and the macroeconomic policy approach in the Eurozone have failed badly, both in terms of preventing the global financial and economic crisis from becoming a euro crisis and in generating a rapid recovery from the crisis, in particular. Following Guger/Marterbauer/Walterskirchen (2006), I have argued that the dominating macroeconomic policy regime in the Eurozone can be seen as a version of what Steindl (1979) had called ‘stagnation policy’. To underline this argument, I have provided a simple Steindlian distribution and growth model in order to identify the main channels through which stagnation policy affects accumulation and productivity growth. This has also provided a set of elements of a Steindlian anti-stagnation policy. Against this theoretical background I have then examined the macroeconomic institutions and the macroeconomic policy approach of the Eurozone which is based on the NCM and I have highlighted its main deficiencies. This has then provided the grounds for an outline of an alternative macroeconomic policy approach for the specific institutional setup of the Eurozone based on a post-Keynesian/Steindlian/neo-Kaleckian approach. This policy approach should address the main problems of the NCM approach before and during the crisis and should thus contribute to overcoming the stagnation tendencies in the Eurozone. It is able to deal with tendencies of divergence and imbalances within the Eurozone, it provides the tools to deal with short- and long-run aggregate demand problem and hence the current stagnation tendencies, and it contains a solution for the lender of last resort and guarantor of government debt problem which has triggered the euro crisis. For this approach to become relevant, what policy makers in the Eurozone would have to accept and take on board is the

¹³ See Hein/Detzer (2015b) for a more detailed derivation of the conditions.

need for aggregate demand management, both at the Eurozone and at member state levels, and for coordination of macroeconomic policies, between the ECB, the Ecofin and the European trade unions and employer associations, as well as the integration of macroeconomic policies with industrial and regional policies so as to facilitate the successful catching up by the European periphery. In moving towards such an approach and contributing to the survival of the Eurozone in the short run, it is most important to break the link between the ECB's stabilisation of member countries' government bond yields with the required austerity and stagnation policies in the crisis countries, in particular. This should allow these countries, and the Eurozone as a whole, to apply more expansionary fiscal policies in order to accelerate the recovery process, as well as providing the economic and political conditions for further reforms in the direction outlined in this paper.

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