

The political economy of public investment and public finance: challenges for social democratic policies

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The ‘comprehensive socialization of investment’ was a key policy goal of The General Theory. And yet, empirically, we have seen a decline in the public investment share in most OECD countries since the economic crisis of the 1970s. In this paper we study several issues concerning this decline. First, we draw on a number of different theoretical perspectives, including those of Smith, Marx, and Keynes, to explain the importance of public investment. Second, we show, using an error correction framework, that the levels of net government saving and gross government investment shares are co-integrated. Third, we discuss the various theoretical reasons underpinning this result. Following Kalecki (1943) and Alexander (1948), we argue that the crisis of the 1970s and growing international competition enabled powerful business groups to successfully push for fiscal austerity to increase ‘labor market flexibility,’ a policy framework that has since become the conventional wisdom. Fourth, building on the view that the state is relatively autonomous; Keynes’s cautionary observation that the political context shapes business confidence; and Polanyi’s argument that social democratic policies always run the risk of appearing to be a threat to private investment, we discuss the challenges to such policies in the current crisis.

Keywords: public investment, public finance, state, circuit of capital, effective demand, austerity, social democracy

JEL codes: B1, B2, C22, E62, H4, H5, H6, I3

1 INTRODUCTION

In the current global economic crisis, austerity appears to have become the conventional wisdom particularly in Europe, although the US under President Obama appears to be struggling to pursue the opposite policy despite pressures from the Right. On the other hand, opponents of austerity have advocated Keynesian-type demand stimulus policies to boost employment and output. It is interesting to note that a number of authors in both the broad Keynesian and neoclassical traditions¹ have also emphasized

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1. See, for example, Schwartz et al. (2008, which was edited by economists at the International Monetary Fund) and Pollin and Baker (2009).

the role of public investment policies to deal with the twin problems of unemployment and the infrastructure crisis. For example, in its assessment of the UK economy, the IMF has recommended an increase in public investment to boost the economy.²

Significantly, as *The Economist* observes in a recent article entitled 'Austerity in Theory and Practice,' the stagnation in the UK has changed the minds of both business lobbying groups and economists. Business groups had initially supported the UK government's austerity policies but now want more pro-growth measures by advocating a higher level of infrastructure spending so as 'to ease capacity pressures, create jobs, and improve Britain's long-term competitiveness vis-à-vis other economies.'³ In a similar vein, the US Chamber of Commerce, in a section on jobs and growth on its website,⁴ emphasizes the importance of public investment spending on a range of different types of infrastructure.

These pro-public investment proposals, espoused by authors from a wide range of theoretical and ideological perspectives, are not surprising given the historical/empirical evidence regarding the positive effects of this type of public expenditure on productivity growth and social development. Public investment spending involves 'an outlay of expenditure on assets that provide longer run benefits going beyond the current period' (Mintz and Smart 2006, p. 9) with cumulative effects that impact on future generations (Perée and Väililä 2005; Mintz and Smart 2006). And yet, despite these facts, the public investment/GDP ratio has experienced cutbacks over the past several decades in most OECD countries. A number of authors (Perée and Väililä 2005; Serven 2007) have pointed out that fiscal consolidation due to excessively 'high' budget deficits was the prime reason for these cutbacks.

Given the centrality of public investment in Keynes's policy proposals (Seccareccia 1995), this paper investigates the reasons for these cutbacks and the policy challenges facing social democratic⁵ alternatives to austerity.

This paper provides four new insights. First, in Section 2, we draw on the insights of Smith, Marx, Polanyi, and Keynes to discuss the central importance of public investment in capitalist development. While the neoclassical tradition also incorporates cost and effective demand issues (as with Marx and Keynes, respectively), it primarily models the public capital stock via production functions that have been critiqued both theoretically and empirically.⁶

Second, in Section 3, we investigate empirically the nature of the cutbacks in public investment by studying the econometric relationship between net government saving and gross government investment. We show the existence of a long-run co-integrating relationship between the two variables for most OECD countries, with net government saving acting as the 'forcing variable.' This suggests the existence of a budgetary constraint. Higher public saving shares during first 2 decades after World War II

2. <http://blogs.lse.ac.uk/politicsandpolicy/archives/33667>.

3. <http://www.economist.com/blogs/freeexchange/2012/08/fiscal-policy>.

4. <http://www.uschamber.com/infrastructure>.

5. By social democracy, we mean a mixed economy (as Keynes proposed) involving not just a 'comprehensive socialisation of investment' (Keynes 1936 [1953], p. 378) but also, more generally, a strengthening of the social safety net so as to reduce poverty and inequality. Whether such a political arrangement, if successfully implemented, solves capitalism's fundamental problems is an important question, but is one that is beyond the scope of this paper.

6. Authors who have primarily contributed to this critical literature include Anwar Shaikh, Jesus Felipe, J.S.L. McCombie, and Franklin Fisher. See Moudud (2010) for references to this large literature.

were accompanied by higher public investment shares;⁷ the decline of the former during and after the economic crisis of the 1970s in turn lowered the latter. To the best of our knowledge, this kind of analysis of the nature of budgetary pressures has not been carried out in this literature.

The third issue, discussed in Section 4, attempts to make theoretical sense of our econometric results. A key question we ask is: why should budgetary constraints even exist given the well-known fact that, unlike private institutions, governments do not 'run out of money,' a point emphasized by many post-Keynesian authors (Wray 1998)? We argue that, quite aside from central bank policies, there are two additional factors that determine the limits up to which budget deficits can rise – both of which are centrally related to capitalists' policy preferences and international competition. First, drawing on Kalecki (1943) and Alexander (1948) and some other authors who have written about the successful business of pushing back against Keynesian policies in the crisis of the 1970s (Useem 1983; Vogel 1983; Akard 1992), we argue that business opposition to rising budget deficits constitutes an important constraint. Second, we argue that in the event that a country runs persistent trade deficits because of a lack of international competitiveness of its firms (Shaikh and Antonopoulos 2012), the accumulation of foreign currency denominated debt constitutes an additional constraint.

Fourth, in Section 5, we discuss alternative policies and challenges faced by the state in promoting social democratic policies. The context of this analysis is our fundamental premise that the state faces business opposition when such policies threaten business priorities, a position taken by a number of authors.⁸

Finally, in the concluding Section 6, we suggest that these challenges require social democratic policies to be conceptualized as a *contested process* in which the push back of powerful business groups is explicitly accounted for. The net outcome is historically and contextually shaped.

2 THE STRUCTURAL NECESSITY OF PUBLIC INVESTMENT: THEORETICAL ARGUMENTS

At an empirical–historical level, different types of public investment have generated various types of positive outcomes. For example, one can see the central role of infrastructure investment from the US's early history up to the New Deal and beyond. Rapid urbanization, which generated increased pressures for efficient sanitation, clean water, public health facilities, transportation, and fire protection, created pressures on state and local agencies to provide the necessary infrastructure (Leighninger 2007). These public sector initiatives accelerated after the Great Depression, and many of the New Deal investment projects (*ibid.*) – as well as other significant post-New Deal initiatives such as the interstate highway system and the Internet – created the basis for longer-term socio-economic development (Pollin and Baker 2009). As discussed later in this section, there is considerable international evidence of the positive effects of public investment.

7. In this paper, the public investment share = nominal gross government investment/nominal GDP, and public saving share = nominal net government saving/nominal GDP. The US data for gross government investment and net government saving are obtained from table 3.1 of the Bureau of Economic Analysis (<http://www.bea.gov/national/index.htm>). Finally, nominal GDP data was downloaded from table 1.1.5 of the BEA.

8. See, for example, Farnsworth (2004) for references to this literature.

It is therefore not surprising that different schools of thought have attempted to explain how and why public investment is important. We begin by tracing out in various parts of Marx's writings the central importance of certain types of infrastructure investment, or what he referred to as the *means of communication and transport* (de la Haye 1979). In order to understand the state's role in the provisioning of the communications and transportation infrastructure, we must locate the importance of the latter in Marx's analysis of capital accumulation.

The relevance of these types of infrastructures in Marx's framework can be directly related to the *circuit of capital* framework in which the nexus between the spheres of production and exchange is crucial if the surplus value, which originates in production, is to be realized in monetary form. It is worthwhile to provide this quote from the *Grundrisse* (cited from de la Haye 1979, p. 15, emphasis in the original):

The more production comes to rest on exchange value, hence on exchange, the more important do the physical conditions of exchange – the means of communication and transport – become for the costs of circulation. Capital by its nature drives beyond every spatial barrier. Thus the creation of the physical conditions of exchange – of the means of communication and transport – the annihilation of space by time becomes an extraordinary necessity for it. Only in so far as the direct product can be realised in distant markets in mass quantities in proportion to reductions in the transport costs, and only in so far as at the same time the means of communication and transport themselves can yield spheres of realization for labour, driven by capital; only in so far as commercial traffic takes place in massive volume – in which more than necessary labour is replaced – only to that extent is the production of cheap means of communication and transport a condition for production based on capital, and promoted by it *for that reason*.

Thus, given capitalist firms' inherent drive to grow by extending their reach to new markets, partly in newer geographic locations, more efficient and quicker ways to realize the produced surplus value in monetary form is of central importance. This requires improved means of transportation and communication.

Analytically, one can derive the relevance of public investment in Marx's framework by linking together three strands of his analysis. At the most fundamental level, the rationale for infrastructure investment is related to his discussion of turnover time (Marx 1967a; 1967b). The turnover time is the sum of the time needed for the production phase ($C \dots P \dots C'$) and that involved in the circulation phase in the circuit of industrial capital: $M \rightarrow C \dots P \dots C' \rightarrow M'$. In this circuit, an initial investment M is made to purchase C which constitutes the labor and non-labor inputs; P represents the time lag in the production process; C' is the output; and M' is the money realized in sales. Crucially, from the standpoint of the need for infrastructure investment, the transition from $C' \rightarrow M'$ also represents a time lag.

Any reduction of the turnover time will increase the rate of profit where such reductions follow from a fall in either one or both components of the turnover period (Marx 1967b, ch. IV; Foley 1986, chs 5 and 6).⁹ While the main way of lowering production time is by raising labor productivity via technological change, Marx argues that '[T]he chief means of reducing the time of circulation is improved communications' (Marx 1967b, p. 71). Of course, technological change in transport

9. A decrease in the turnover time may also lower unit labor costs where unit labor costs = wage rate/labor productivity. With a higher turnover rate, a given amount of labor will produce a greater amount of output over, say, a year (given the wage rate).

and communications will also speed up the turnover time, as Marx observes with regard to the development of railroads, steamboats, and the global telegraph network (ibid.).¹⁰

Given the implicit centrality of infrastructure investment in the circuit of capital framework, does the public or private sector promote it? Marx argues that capitalists may undertake the production of an infrastructure, such as a road, provided certain conditions exist: (a) they perceive a need for it in the conduct of their business operations; (b) since it is sold piecemeal as a commodity, there has to be an adequate level of demand so as to make it a profitable investment; and (c) that capitalist firms have reached a large enough size to undertake such a long-term project. In short, for Marx's discussion of this issue in the *Grundrisse*, profitability is an important criterion in capitalists' decision to engage in infrastructure investment.

The unwillingness of capitalists to invest in infrastructure, if it is not profitable to do so, will often induce them to push the state to invest. As Marx states in the *Grundrisse* (cited from de la Haye 1979, pp. 132–133):

[a] country, e.g. the United States, may feel the need for railways in connection with production; nevertheless the direct advantage arising from them for production may be too small for the investment to appear as anything but *sunk capital*. Then capital shifts the burden on to the shoulders of the state; or, where the state traditionally still takes up a position superior to capital, it still possesses the authority and the will to force the society of capitalists to put a part of their *revenue*, not of their capital, into such generally useful works, which appear at the same time as *general* conditions of production, and hence not as *particular* conditions for one capitalist or another ... Capital undertakes only *advantageous* undertakings, advantageous in its sense.

We would argue that the need for public investment also arises endogenously, in an implicit sense, in Karl Polanyi's famous discussion regarding the so-called *double movement* (Polanyi 1944, p. 132). For Polanyi, market expansion which (as in Marx) is inherent to capitalism necessarily creates social instability and provokes the need for social protection mechanisms of various kinds, generally promoted by the state (Streeck 2009). It is not unreasonable to infer from Polanyi that a subset of such growing social protection mechanisms necessarily involves increased outlays in public investment (public hospitals, sewage and water pipelines, etc.), as Leighninger (2007) observed.

In short, while the role of public investment is directly connected to business investment via the circuit of capital in Marx, one can implicitly locate its role in Polanyi's work within the larger context of the role of the state in capitalist development, which, as the latter observes (Polanyi 1944, p. 145), is structurally determined so that the political ideology of the state itself is of little import.

While the role of public investment is implicit to Polanyi's work and explicit to that of Marx, it is in Adam Smith's work that one finds a synthesis of both criteria, as discussed by Robert Heilbroner in his classic *The Worldly Philosophers* (1992). In Part III of chapter I, Book V, of *The Wealth of Nations*, Smith argues in the same vein as Marx for the need of public works to accommodate the needs of commerce (Smith 2000, p. 780). As in Marx, Smith (ibid., p. 779) observes that the state has the obligation of

erecting and maintaining those public institutions and those public works, which, though they may be in the highest degree advantageous to a great society, are, however, of such a nature

10. Note that in the Marxian framework, the types of transportation activities involving the physical movement of goods from their point of production to their point of sales constitute a part of the production process (Shaikh and Tonak 1994, p. 23).

that the profit could never repay the expense to any individual or small number of individuals, and which it therefore cannot be expected that any individual or small number of individuals should erect or maintain.

A number of post-Keynesian authors (see, for example, Smithin 1989) have argued that Keynes's expansionary fiscal policy proposal was not based on rising and growing budget deficits. Instead, his fiscal policy was one in which the public sector's budget would be split up between a current and a capital budget, where a surplus on the former, maintained via high taxes, would be used to finance long-term capital expenditures. All in all, Keynes called for a 'comprehensive socialization of investment' that 'will prove the only means of securing an approximation to full employment' (Keynes 1936 [1953], p. 378), although he was quite aware of how the political context of state policies would shape business confidence (see Section 4), including Kalecki's arguments on this issue.¹¹

However, we would argue that Kalecki (1943; 1945) went much farther than Keynes in analysing the policy challenges faced by the state when dealing with an economic slump. Kalecki (1943; 1945) also emphasized the centrality of public investment, including greater reliance on state-owned enterprises, to counteract insufficient effective demand. On the other hand, Kalecki (1945) was quite aware of the challenges involved in the promotion of public investment and, as discussed in Section 4, full employment policies in general. For example, in his earlier article, Kalecki (1943, p. 88) emphasized the fact that his public investment-led strategy would only be successful if it did not compete with private investment: '...otherwise public investment would tend to reduce the rate of profit on this equipment'.

In the neoclassical framework, the role of public capital is introduced via the aggregate production function or a cost/profit function (Schwartz, Corbacho, and Funke 2008, p. 15). Public investment can have ambiguous effects on private investment. For example, if it raises the budget deficit it will raise interest rates in loanable funds market and thus lower private investment. On the other hand, it may stimulate private investment because of complementarities and accelerator effects (Agénor 2004, pp. 61–62).

For countries with 'high' levels of public debt and deficits, the framework claims that fiscal austerity can have expansionary effects via the *negative fiscal multiplier*. If the state is consistent in its austerity policies, the private sector's degree of optimism will rise with the fall in debt default risk; interest rates will drop as risk premia fall; and expected tax rates will fall. These factors are expected to jointly stimulate aggregate supply, by lowering the cost of capital as well as aggregate demand. However, the expansionary effect may be dampened if infrastructure investment is cut because of complementarities with private investment (ibid., pp. 107–109).

In contrast to neoclassical models, which analyse the effect of public investments via the production function framework, formal post-Keynesian models of the economy (Godley and Lavoie 2007) do not distinguish between different types of government spending. This is not surprising since, as with conventional macroeconomic models such as the IS-LM, in these post-Keynesian models all types of government spending have the same stimulatory effect on output and employment. Thus there is no theoretical space for a separate treatment of public investment. On the other hand, some heterodox authors have discussed the role of public investment in Keynes's framework or formally modeled it in the Harrod–Domar framework (Moudud 2010).

11. See editor's comments to Kalecki's 1943 article in *Political Quarterly*.

Over the past several decades, macroeconomists from different theoretical perspectives have built models which are anchored in a system of stock-flow consistent (SFC) accounts (Agénor 2004, ch. 1; Godley and Lavoie 2007; Moudud 2010). In the SFC framework, all intra- and intersectoral flows and changes in stocks are linked explicitly. One automatic implication of linking each sector's flow of funds to changes in its balance sheet items is that every sector's saving equals the change in its net worth.

Moudud (2010) models the effects of public consumption (C_g), public investment (I_g), and taxation in what he calls an *extended Harrodian growth model* which has as its basis an SFC system of accounts. Following its definition in national income accounts (Agénor 2004, p. 15), net government savings (S_g) equals *current receipts* T_g (indirect taxes net of subsidies; operating surpluses of state-owned enterprises; direct taxes; net transfers) minus *current expenditures* G (public consumption spending; net transfers, interest payments on public debt). Let ΔB_g = net borrowing from the private sector and the central bank. Then it follows that (Agénor 2004, p. 19)

$$S_g = T_g - G = I_g - \Delta B_g \quad (1a)$$

or

$$I_g = S_g + \Delta B_g. \quad (1b)$$

That is, public investment is financed via some combination of public saving and public debt. Alternatively, the government's budget deficit is related to its financing by the following equation (ibid.):

$$G + I_g - T_g = \Delta B_g. \quad (2)$$

The above equations constitute the basis of the next section.

Drawing on Harrod's growth framework, Moudud (2010)¹² shows how changes in public consumption and public investment have different effects on the warranted growth rate. One of the significant theoretical results is that a surplus in the government's current budget, maintained via a sufficiently high tax rate, could be used to finance its capital budget so as to raise the warranted growth rate without 'excessive' public debt accumulation. This analysis of *capital budgeting*, illustrated by equation (1b), is consistent with Keynes's own proposals, as discussed above, as well as those of other important figures in the early Keynesian tradition such as Kaldor (Palma and Marcel 1989).

The theoretical framework underpinning this paper is based on two strands of the theoretical literature reviewed above. First, the empirical focus is based on the capital budgeting framework of Harrod and others. While countries have not officially

12. Moudud's analysis of the Harrodian warranted path is based on a closed economy. The basic national income identity in such a situation is given by:

$$S_g + S_p = I_p + I_g,$$

where S_g = private saving and I_p = private investment. Extended to an open economy with exports X and imports M , the identity becomes:

$$S_g + S_p = I_p + I_g + X - M.$$

followed Keynes's capital budgeting policies in the post-World War II period, we show that in fact for most OECD countries the current budgetary balance has driven variations of the capital budget. Second, we take the view common to Marx, Keynes, and Kalecki that fluctuations in business investment, which are driven by actual and expected profits, are central to the dynamics of capitalist societies. We in fact argue that this second feature of our theoretical framework can, to a large extent, explain the *de facto* capital budgeting policies that have been pursued. The key issue, following Kalecki (1943) and Alexander (1948), is political pressure from capitalists if profitability is threatened because of expansionary fiscal policies.

At an empirical level, there is a relatively large literature regarding the effects of public investment on economic growth, productivity, private investment, and other variables. Many of these studies show positive effects, although the estimates vary and there is also evidence of negative effects (Agénor 2004, p. 65; Schwartz, Corbacho, and Funke 2008, ch. 1; UNCTAD, 2003). Challenging commonly held views, some authors have also discussed the positive effects of state-owned enterprises (Chang 2004).

While Aschauer's work on the productivity-enhancing effect of the public capital stock (Aschauer 1989) has received considerable attention, it has been criticized on econometric grounds because his analysis was not conducted in a cointegration framework even though the variables he used were non-stationary. Subsequent econometric work on public investment has used the cointegration approach (see, for example, Pereira 2000) and found the former to have positive effects on various private sector variables as well as economic growth.

Finally, there is not inconsiderable international evidence regarding the positive impacts of public investment including those from state-owned enterprises (UNCTAD 2003; World Bank 2003; Chang 2004, ch. 6).

A number of empirical studies have discussed the relationship between countries' budgetary positions and their public investment policies. Servén (2007), for example, relates budget deficits and public investments (as a proportion of GDP) in Latin America and the European Union (EU) and shows that fiscal consolidation (reduction of budget deficits) has been accompanied by cuts in public investment. Perée and Väilä (2008) review some of the empirical work on the determinants of public investment. For example, they discuss the study by Mehrotra and Väilä (2006), which deploys both panel data and the Johansen cointegration methods to investigate the determinants of public investment in the EU. For the purposes of the current paper, two econometric findings in this study are of importance. First, public debt is invariably significant and negatively related to public investment. Second, the dummy variable representing the post-Maastricht EMU period was not significant for any country. In short, efforts to reign in budget deficits when they were deemed 'too high' came 'long before' (Perée and Väilä 2008, p. 27) the constraints imposed by the Maastricht Treaty on member nations. Thus, the interesting question becomes: what makes budget deficits and public debt 'excessive'? Alternatively, where does the pressure come from to cut deficits? These questions are dealt with in Sections 4 and 5.

The current paper builds on the existing empirical literature, whose focus tends to be the study of the relationship between budget deficits (or public debt) and public investment. On the other hand, using a different econometric methodology, we study the dynamic interactions between the two components of the budget deficit, net government saving, and gross government investment (see equations (1a), (1b) or (2)). Finally, our paper attempts to analyse theoretically what an 'excessive' budget deficit is.

3 THE EMPIRICAL RELATIONSHIP BETWEEN GOVERNMENT SAVING SHARES AND GROSS GOVERNMENT INVESTMENT SHARES

In Figures 1a and 1b, we plot annual data for the public investment (IGRUS) and public saving shares (SAVGRUS) for the United States, available from the US Department of Commerce (BEA), for the period 1929–2012. The public investment and saving shares are nominal public investment and public saving, respectively, as proportions of nominal GDP.

In this long time period, the two variables exhibit wide variations. We have therefore split up the data into four sub-periods so that the reader can better discern the

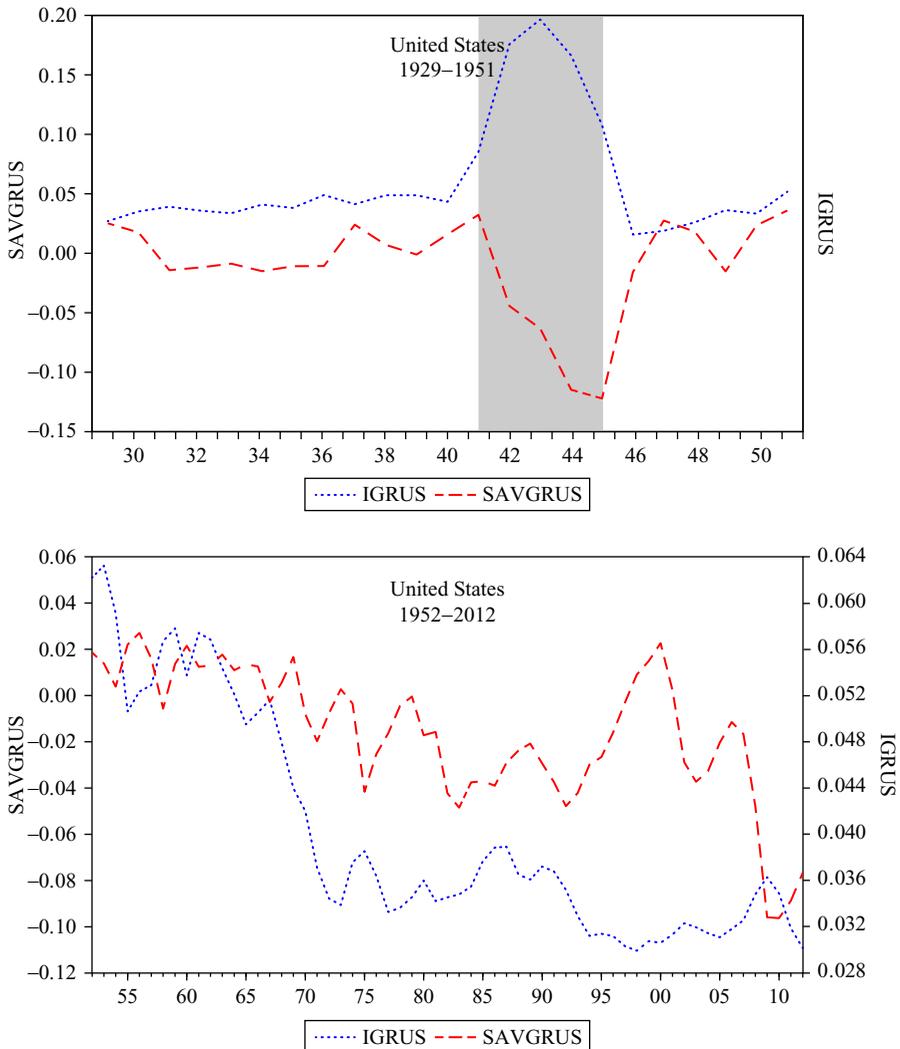


Figure 1a US public investment and savings shares, 1929–2012

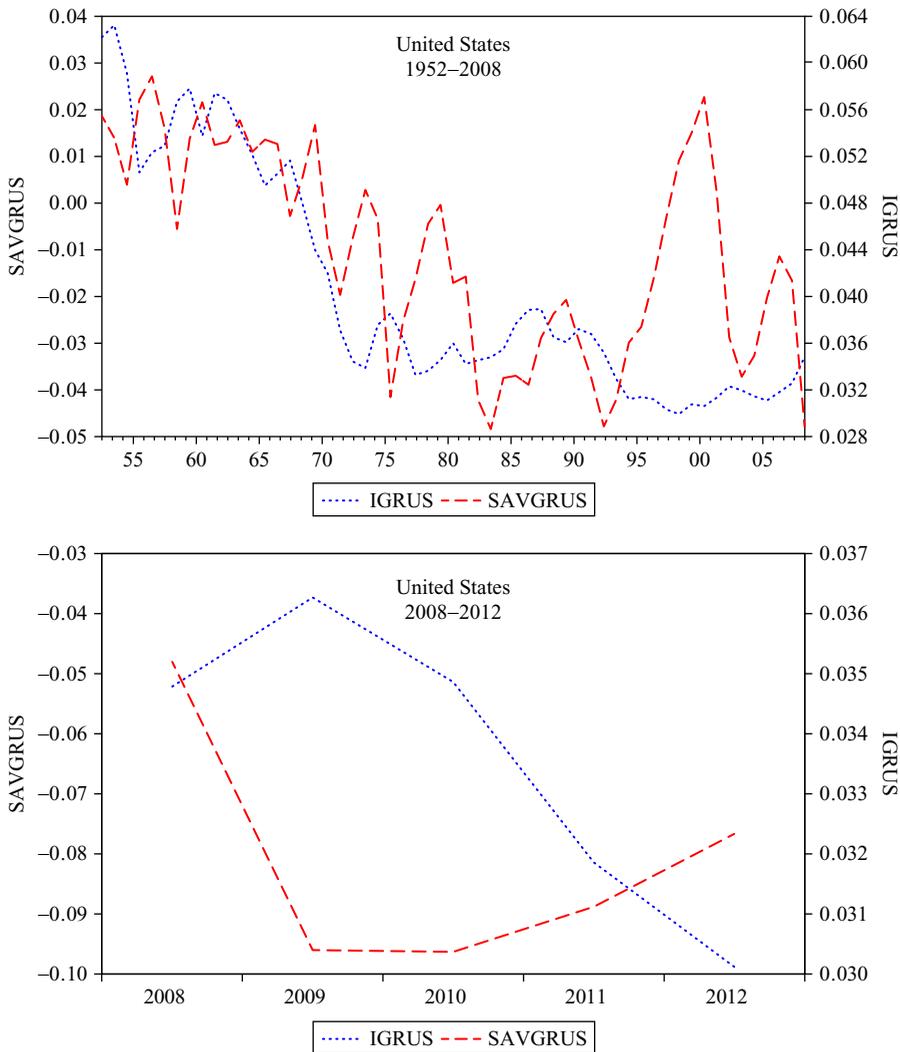
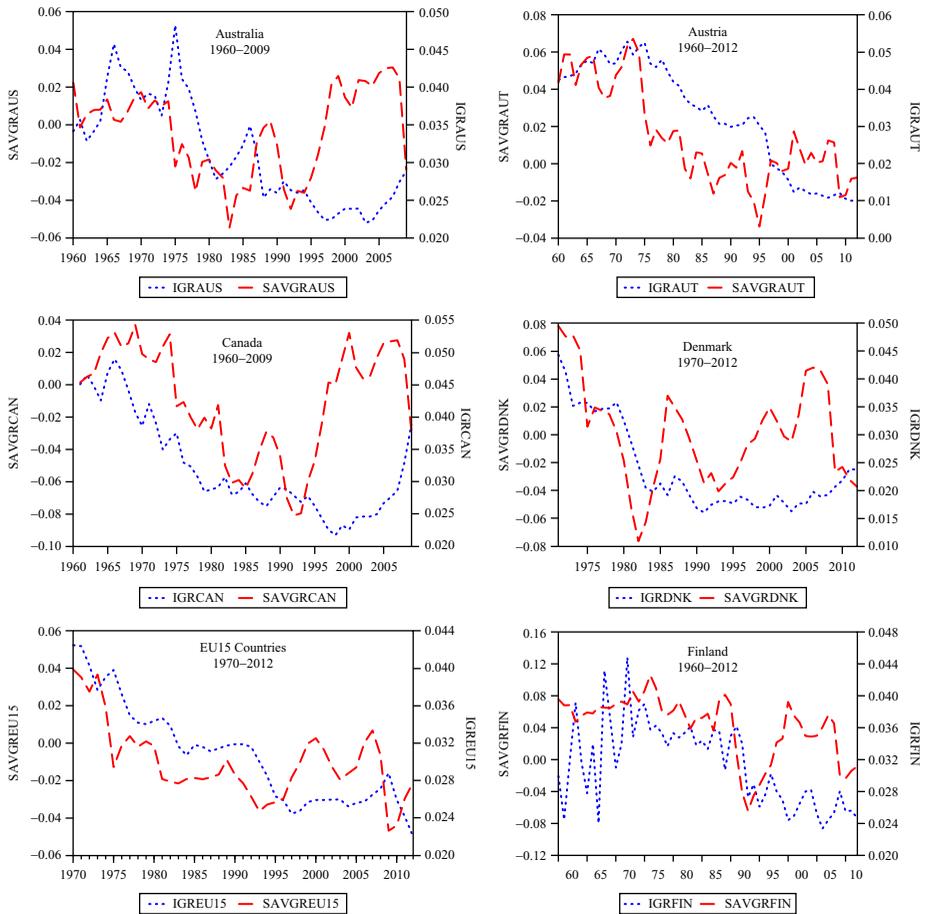


Figure 1b US public investment and savings shares, 1952-2012

relative movements of the two variables in each period: 1929-1951, 1952-2012, 1952-2008, and 2008-2012.

For the period 1929-1951, the two variables were somewhat loosely correlated, with the relationship becoming negative during the war years, which are shaded in Figure 1a. On the other hand, they became strongly positively correlated in the 1952-1992 period, primarily because of the 1951 Fed-Treasury accord. The growing public saving share during the Clinton years (1993-2000) coincided with a public investment share which remained essentially flat and continued to be so in the Bush years (2000-2008), during which period the public saving share declined. Finally, in the Obama years (post-2008), the public investment share has declined somewhat,



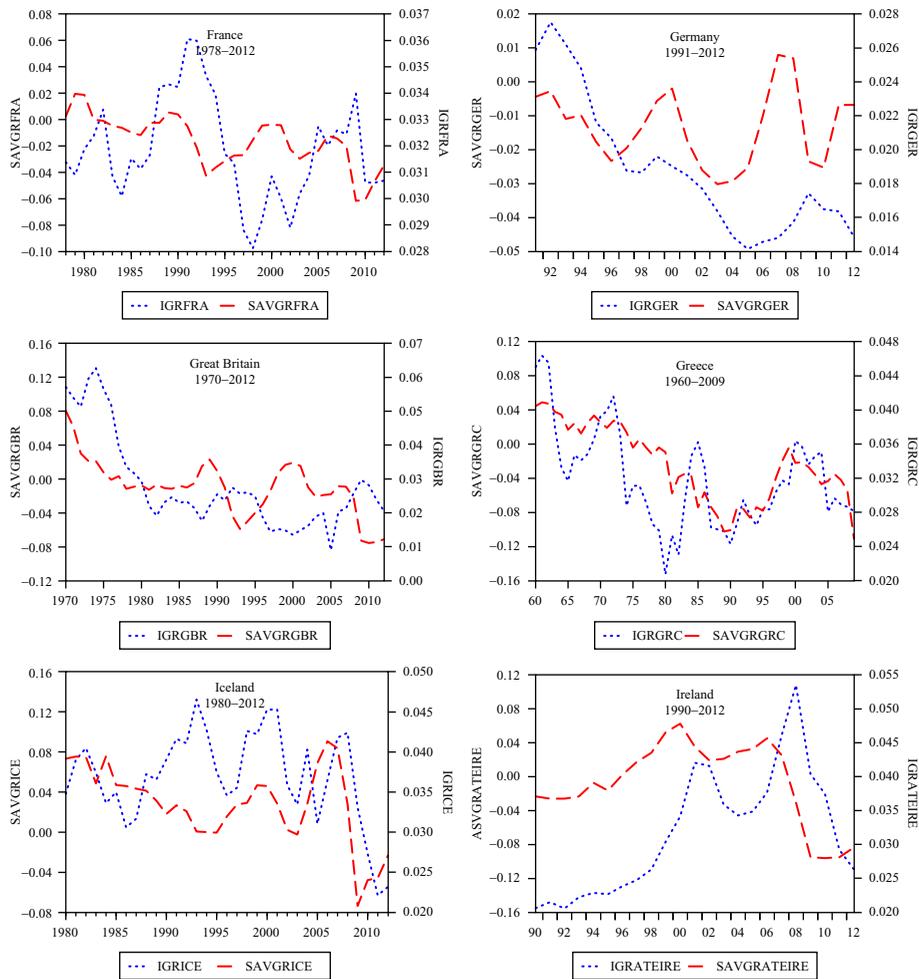
Source: OECD Economic Outlook online database.

Figure 2a Other OECD public investment and savings shares, 1960–2012 (countries A–F)

despite the American Recovery and Reinvestment Act, while the public saving share fell dramatically between 2008 and 2009 but has become less negative ever since.

In Figure 2, we plot annual data for the two variables for a number of other OECD countries.¹³

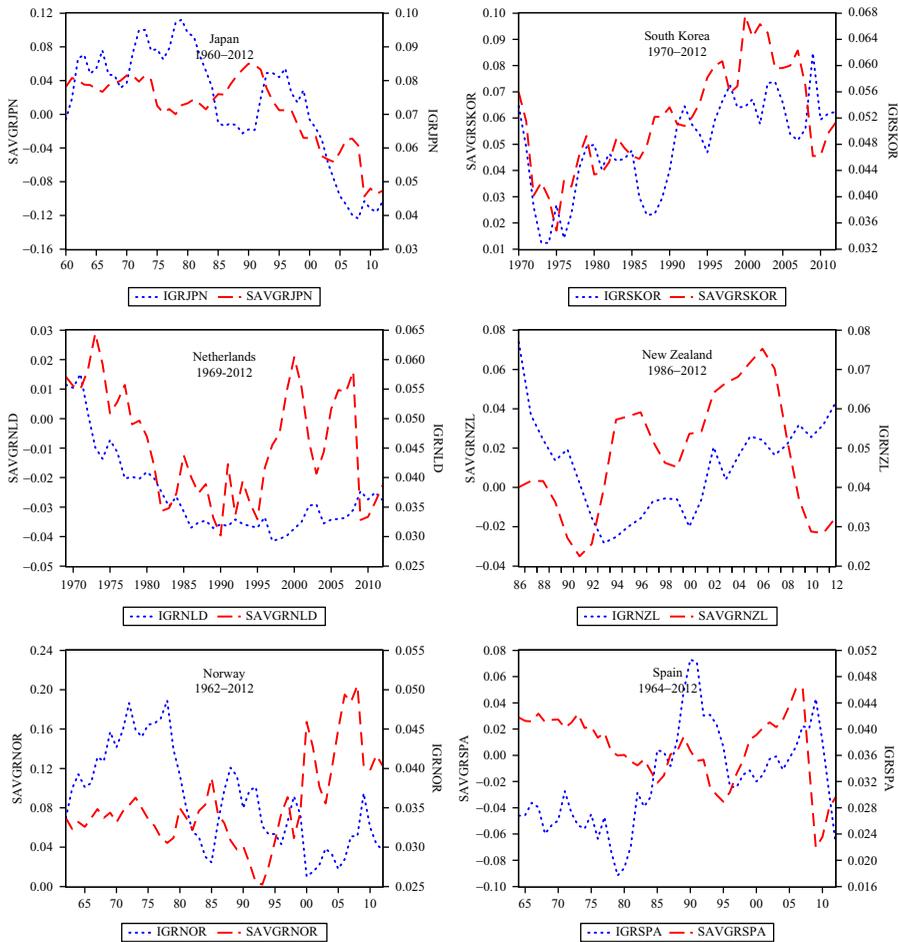
13. All the annual data in Figure 2 were obtained from the OECD Economic Outlook database which begins from 1960. Owing to missing values, the data for Australia, Canada, and Greece were obtained from no. 86 of this database while all other countries' data were from no. 90. The time periods in these charts vary owing to data availability. As with the US, nominal net government saving and gross government investment were divided by nominal GDP to obtain the corresponding public investment and saving shares.



Source: OECD Economic Outlook online database.

Figure 2b Other OECD public investment and savings shares, 1960–2012 (countries F–I)

Visually, Figures 1 and 2 suggest that for most countries there appears to be a positive co-movement of the trends of the two variables, even though for several countries (Australia, Austria, Canada, Denmark, Finland, Great Britain, Netherlands, Norway, Sweden, and the US) they deviate from each other for several years in the 1990s. Given the possible non-stationary nature of these variables, the use of OLS to test for their potential relationship may yield spurious results (Hill, Griffiths, and Lim 2011). The deeper question is whether there is an underlying cointegrating relationship in case the variables are I(1), along with an associated error correction mechanism (ECM) which binds their trends.

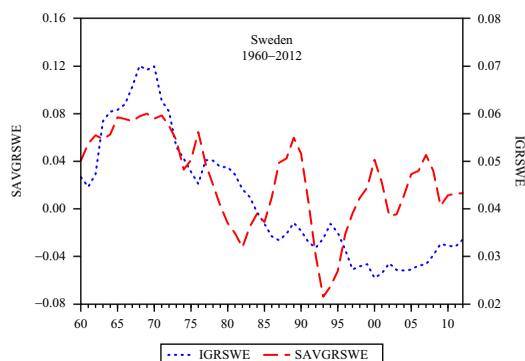


Source: OECD Economic Outlook online database.

Figure 2c Other OECD public investment and savings shares, 1960–2012 (countries J–S)

Use of the ECM framework has two advantages. First, the sign and significance of the error correction coefficient (ECC) provide an indication of Granger causality in a non-stationary context. For an error correction model to be stable, the ECC has to satisfy certain stability criteria (Hill, Griffiths, and Lim 2011, p. 500).¹⁴ Second, for a stable ECM, the absolute value of the ECC provides an indication of the time that it takes for the variables to reach an approximate equilibrium (or long-run) relationship. From a methodological standpoint, this is an important feature of the ECM

14. For example, with public investment as the dependent variable in the cointegrating and ECM relationships, the ECC has to satisfy the following stability criterion: $-1 < ECC \leq 0$ (Hill, Griffiths, and Lim, 2011, p. 500).



Source: OECD Economic Outlook online database.

Figure 2d Other OECD public investment and savings shares, 1960–2012 (Sweden)

framework, as it allows for the variables to meander away from each other for considerable periods of time while the absolute value of the ECC (in a stable system) gives an indication of the disequilibrium correction process involved in reaching their long-run co-trended relationship.

We deployed the autoregressive dependent lag (ARDL) framework to investigate this long-run relationship as well as the associated ECM (Pesaran et al. 2001) using Microfit 5.0. We chose the ARDL method over rival methods for a number of reasons. First, while the Johansen method investigates cointegration in a vector error correction model (VECM) framework, its main disadvantage is that it requires prior unit root testing. Single-equation cointegration methods such as the Engel Granger test also require unit root testing. Second, while Granger causality of potentially non-stationary variables in small samples can be carried out without unit root tests in a vector autoregression (VAR) context (Yamada and Toda 1998), the problem with such models is that they do not deal with ECMs and therefore cannot provide any information about disequilibrium adjustment processes.

Table 1 shows the long-run or cointegrating relationship along with the ECC for each country and the aggregate EU15. The public investment share (IGR) is the dependent variable. The positive sign and significance of the cointegrating parameter indicates the positive nature of the long-run relationship, while the fact that $-1 < ECC \leq 0$ shows that SAVGR Granger causes IGR. Finally, SAVGR acts as the ‘forcing variable,’ as shown by the significance of the F statistic.

The meaning of the ECC is straightforward. Any time that IGR deviates from its cointegrating value, it is ‘pulled’ toward the latter by SAVGR. This is a policy response, and the absolute value of the ECC reflects its speed. Thus, as shown in Table 1, the annual adjustment rate to the cointegrating value is smallest for Austria (4.58 percent) and the largest for Finland (42.97 percent). If the ECC were not significant, one would have to conclude that there is no policy response linking the current and capital budgets.¹⁵

15. Owing to space limitations, we have not included results of the standard diagnostic tests, all of which are satisfactory, although in the equation for EU15 and Great Britain the null for no functional form misspecification is rejected, suggesting the possibility of the existence of some non-linearities (Pesaran et al. 2001, p. 314). The primary author can provide these outputs on request.

Table 1 Key output from the cointegrating and ECM equations

	Intercept	Time trend coefficient {t-ratio} [p-value] s.e.	Saving rate coefficient {t-ratio} [p-value] s.e.	Error correction coefficient {t-ratio} [p-value] s.e.	Dummies	Regression date range and ARDL order	F statistic	Lower and upper bounds
Australia	0.035452	-2.70E-04 {-4.6961} [0.000] 5.74E-05	0.11803 {2.923} [0.006] 0.04038	-0.24479 {-5.8491} [0.000] 0.041851	D6566 D7475 D84to86	1961-2009	22.586	7.6538 I(0)* 8.5679 I(1)*
Austria	0.0091463	Not applicable	1.1855 {2.5264} [0.015] 0.46925	-0.045801 {-2.0180} [0.049] 0.022697	D88 D73 D7576 D97to99	ARDL (1, 1) 1961-2012 ARDL (1,1)	9.7017	5.4905 I(0)* 6.3661 I(1)*
Canada	0.028701	Not applicable	0.066992 {2.1451} [0.039] 0.031231	-0.19858 {-5.7624} [0.000] 0.034462	D66 D71 D09	1966-2009 ARDL (1, 1)	16.6298	5.2308 I(0)* 6.0718 I(1)*
Denmark	0.020265	Not applicable	0.16772 {2.0483} [0.048] 0.081884	-0.10768 {-3.0683} [0.004] 0.035094	D73	1972-2012 ARDL (1,0)	6.9863	5.2736 I(0)* 6.0950 I(1)*
EU15 Countries	0.029674	Not applicable	0.26175 {4.1609} [0.000] 0.062907	-0.14576 {-4.7216} [0.000] 0.03087	D8586	1973-2012 ARDL (1,1)	14.3649	5.4878 I(0)* 6.3689 I(1)*
Finland	0.027346	Not applicable	0.070113 {2.7235} [0.009] 0.025743	-0.4297 {-4.8598} [0.000] 0.088419	D67 D68 D72	1961-2012 ARDL (1, 1)	11.9269	5.1875 I(0)* 5.9561 I(1)*
France	0.033975	Not applicable	0.092414 {1.9891} [0.059] 0.046461	-0.30839 {-3.2979} [0.003] 0.093512	D83 D88 D97 D02	1982-2012 ARDL (1,1)	9.4959	5.2698 I(0)* 6.2221 I(1)*

(continues overleaf)

Table 1 Key output from the cointegrating and ECM equations (Continued)

	Intercept	Time trend coefficient {t-ratio} [p-value] s.e.	Saving rate coefficient {t-ratio} [p-value] s.e.	Error correction coefficient {t-ratio} [p-value] s.e.	Dummies	Regression date range and ARDL order	F statistic	Lower and upper bounds
Germany	0.019275	Not applicable	0.42609 {2.4077} [0.030] 0.17696	-0.10596 {-3.1327} [0.007] 0.033826	D92 D95 D09	1992–2012 ARDL (1, 0)	9.3019	5.8758 I(0)* 6.7811 I(1)*
Great Britain	0.025677	Not applicable	0.47253 {3.3482} [0.002] 0.14113	-0.18697 {-3.4178} [0.002] 0.054705	D77 D05 D0607	1973–2012 ARDL (1, 3)	7.9978	5.4185 I(0)* 6.3056 I(1)*
Greece	0.033935	Not applicable	0.080198 {3.2418} [0.002] 0.024738	-0.35861 {-3.8539} [0.000] 0.093052	D74 D80	1961–2012 ARDL (1, 0)	7.6089	5.1370 I(0)* 6.0116 I(1)*
Iceland	0.029712	Not applicable	0.2487 {2.3100} [0.029] 0.10766	-0.28556 {-2.6290} [0.014] 0.10862	D93 D05	1981–2012 ARDL (1, 0)	7.3734	5.3252 I(0)* 6.2270 I(1)*
Ireland	0.036072	Not applicable	0.28169 {2.0008} [0.062] 0.14079	-0.19782 {-2.2160} [0.040] 0.08927	D09	1991–2012 ARDL (1, 1)	10.9273	5.6344 I(0)* 6.6529 I(1)*
Japan	0.061181	Not applicable	0.5316 {3.4221} [0.001] 0.15534	-0.12039 {-2.6028} [0.012] 0.046254	D62 D78	1961–2012 ARDL (1, 1)	5.7368	4.2116 I(0)** 4.8773 I(1)**

Netherlands	0.035241	Not applicable	0.15327 {3.7049} [0.001]	-0.35269 {-7.4663} [0.000]	Not applicable	1972–2012 ARDL (3, 3)	29.6383	5.3153 I(0)* 6.1377 I(1)*
New Zealand	0.034488	Not applicable	0.040711 0.21725 {2.4569} [0.024]	0.047238 -0.36662 {-5.1778} [0.000]	D02 D11 D12	1987–2012 ARDL (1, 1)	19.281	5.5400 I(0)* 6.4855 I(1)*
South Korea	0.031991	Not applicable	0.088425 0.27879 {3.7929} [0.001]	0.070806 -0.38888 {-3.8835} [0.000]	Not applicable	1973–2012 ARDL (1, 1)	7.6364	5.3580 I(0)* 6.2134 I(1)*
Sweden	0.023982	Not applicable	0.073505 0.50441 {2.6744} [0.011]	0.10014 -0.066469 {-2.3645} [0.023]	D6364 D68 D71	1961–2012 ARDL (1, 1)	5.9799	4.2989 I(0)** 5.0251 I(1)**
US	0.043784	Not applicable	0.18861 0.37634 {4.2524} [0.000]	0.028111 -0.32526 {-10.3007} [0.000]	D7374 D94 D41 D42 D43	1934–2012 ARDL (5, 4)	66.3097	5.0313 I(0)* 5.9044 I(1)*
			0.088502	0.031577				

Notes: *95% confidence level. **90% confidence level. A dummy such as D73 takes on the value of 1 in 1973 and is zero in other periods. Similarly, D7475 takes on the value of 1 in 1974 and 1975 and is zero in other periods. Finally, D84t086 takes on the value of 1 in 1984 through 1986 and is zero elsewhere.

It is quite likely that changes in the public investment share could lead to corresponding variations in the public saving share, for example by altering growth rates and thus taxation revenues. We therefore made the public saving share the dependent variable in the ECM. With the exception of Iceland, in none of the other cases was *both* the F statistic and the ECC statistically significant. While the ECC was statistically significant and of the correct sign for both Germany and Great Britain, the F statistic failed the bounds test at the 90 percent significance level. On the other hand, while the F statistic was highly significant for the US, the ECC was not statistically significant.¹⁶

Norway and Spain displayed no cointegrating relationships. In the case of Norway, the public investment share has declined secularly since the mid-1970s after a huge increase in the 1964–1975 period. The public saving share remained relatively trendless until about 1986, declined between 1986 and 1993, and then started to increase. It has remained positive throughout the entire period. It is therefore not surprising that there is no cointegrating relationship. As discussed in the next section, cutbacks in the public investment share often arise due to political pressure from business groups to cut deficits when the latter become ‘excessive.’ And yet the Norwegian primary budgetary balance has been in surplus for much of the period under consideration (with the exception of 1988–1994¹⁷), suggesting other reasons for the cutbacks. While, as we show in this section, a decline in the public saving share causes the public investment share to fall for most of the countries, there is no reason why the latter may not be squeezed down for other political reasons, for example there may be growing pressures to privatize lucrative publicly owned assets, an issue discussed by Wahl (2011) in connection with the Nordic countries. As we discuss in the next section, it could be that the privatization of public assets was the *quid pro quo* that the Norwegian state offered capitalists in return for maintaining highly regulated social democratic institutions.

In the case of Spain, both series are positively correlated for the periods 1964–1977 and 1986–2012, but are negatively correlated for the period 1978–1985. In the 1978–1985 period there was a major increase in the public investment share, while the public saving share continued its downward fall. While it is impossible to say a priori whether a cointegrating relationship (with negative and significant ECCs) would have existed if the two variables were positively related in all three periods, their opposite movements in the 1978–1985 period precludes such a putative relationship. Again, nothing in either our theoretical or the ECM framework disallows the possibility for both variables to wander off in opposite directions for considerable periods of time, as they are shaped by complex economic and political factors. However, modeling such long deviations so as to extract a possible co-trended and cointegrated relationship, suitably complete with dummy variables to capture exogenous shocks, is difficult with a relatively small size when the ‘shock’ in question is of such a long duration.¹⁸

On the other hand, for the other countries and the EU15, we would suggest the following theoretical insights. In the roughly quarter-century boom following the end of the World War II, government savings shares were generally much higher because of higher tax rates (including corporate tax rates), lower unemployment benefits, and lower interest rates on government debt. The boom in turn created the need

16. Owing to space limitations, these regressions have not been included in this paper, although they can be provided by the primary author on demand.

17. See the OECD’s Economic Outlook database.

18. Because of the small sample size, we deemed it unwise to include a non-zero dummy variable spanning 8 years (1978–1985).

for growing public investment outlays. The global economic crisis that started in the early 1970s sharply lowered government saving shares because of a drop in tax rates, rising interest rates, and increases in unemployment benefits. At the same time, increased global integration exposed OECD countries to rising international competition, in particular from Japan and other lower-wage countries in East Asia, which exacerbated job losses in many of the former countries. Hence job losses due to both the economic crisis and global competition contributed to rising budget deficits and falling government saving shares.

The other dimension to globalization was a dramatic increase in capital mobility. Increased outward flows of financial capital in turn further pushed up domestic interest rates which raised budget deficits by lowering government saving shares. The growth of outsourcing and the accelerated outward flow of foreign direct investment (FDI) to low-wage countries with 'business-friendly' labor policies raised the bargaining power of business groups in the OECD, who were increasingly able to push back and *reshape* the Keynesian Welfare State so as to attain more 'flexible' labor market policies within the OECD (Mishra 1999), a process that was as true of a so-called 'welfare state laggard' such as the US as the highly coordinated German economy (Streeck 2009; Paster 2012).

The response of policymakers in the face of growing budget deficits and government debt was to cut back on public investment expenditures (although in countries like the US and the UK the welfare state also came under attack in this crisis). Perée and Väilä (2005, p. 6) argue that this policy response arose from a focus on the aggregate budget deficit that 'puts both current and investment spending on an equal footing in the measurement of the deficit.' With such a fiscal policy rule, governments in crisis periods find it politically more convenient to delay construction of long-term infrastructural projects as opposed to raising taxes or cutting expenditures (although the latter does happen too). As the International Monetary Fund (2004, p. 9) concludes: 'There is, however, evidence that public investment has fallen because of fiscal adjustment, and on this account there is reason to be concerned.' Citing the World Bank (1988), the IMF (IMF 2004, p. 9) reports that, in the fiscal crisis of the 1980s, cuts in public investment were more than three times greater than those on current expenditures.

And yet the above explanations imply the existence of a budget constraint with rising budget deficits beyond 'some' level being seen as excessive, thereby prompting cutbacks. But what makes budget deficits 'excessive' and why do constraints arise?

4 WHY DO PUBLIC BUDGETARY CONSTRAINTS EXIST?

It could be argued that growing central bank independence might account for the budgetary constraints.¹⁹ However, central banks have become more independent only since the mid to late 1980s (Epstein 2005), so they are no longer allowed to directly buy government debt to finance deficits (Maxfield 1997; Gnos and Rochon 2002). As Epstein (2005) argues, after World War II most central banks were involved in supporting a broad range of macroeconomic, social, and industrial policies promoted by the state. As he observes, this was even true of the US Fed despite the formal establishment of independence in the 1951 Fed–Treasury Accord. On the other hand, it can with some justification be argued that central bankers became progressively more leery of absorbing growing amounts of public debt in the 1970s with rising global inflation.

19. This could in part explain our results for Germany, Ireland, and New Zealand, given the starting dates of the regressions.

The issue of central bank independence is important. However, we want to raise a deeper theoretical question here, which goes beyond the issue of particular central bank policies. Our question is this: in the absence of inflationary pressures, as has been the case for many years, how far can budget deficits rise with an accommodating central bank? As Palley (2013) argues, it is a well-known fact in monetary macroeconomics that states do not passively need to borrow from or tax the public before spending. In contemporary post-Keynesian theory, the so-called Chartalist tradition has emphasized this fact, provided the central bank is accommodating (Wray 1998). The implication is that an accommodating central bank can enable a budget deficit to rise to whatever level is deemed socially desirable, for example to promote full employment policies. This is the issue which we challenge, although we agree with the argument that governments do not 'run out of money' as the Chartalists emphasize.

Is there potential for central banks to become more independent under flexible exchange rates,²⁰ thereby having more discretionary power to monetize the public debt, and thus enable the budget deficit to rise in order to maintain full employment? Leaving aside the 'exorbitant privilege' (Eichengreen 2011) that the US enjoys, there are three related issues pertaining to the balance of payments which raise doubts about the ability of the state to run the deficits it desires. The first issue follows from the balance of payments constrained growth (BPCG) literature, pioneered by Thirlwall (1979). If budget deficits raise the growth rate, but the latter is constrained by performance in international markets (McCombie and Thirlwall 1999), then it necessarily follows that performance in international markets will constrain how high the budget deficit can get, whatever the exchange rate system may be. This is exactly the point made by Pérez Caldentey (2009) and Palley (2013, p. 21) on the basis of the BPCG framework.²¹

Second, there is a growing literature (see, for example, Shaikh and Antonopoulos 2012) which has taken the position that neither fixed nor flexible exchange rates will bring about balanced trade, so that even under flexible exchange rates the central bank will not have full monetary independence. Authors in this literature argue that those countries with greater proportions of relatively uncompetitive and unprofitable firms will, under free trade, experience *persistent* trade deficits. To the extent that the accumulation of foreign debt is denominated in a foreign currency, such countries will be under pressure to attract short-term capital to finance their trade deficits. Central banks in these countries will have to promote restrictive monetary policies in order to push domestic interest rates up, so as to attract foreign short-term capital. They will not be in a position to simultaneously 'print' money to absorb public debt, which will tend to lower interest rates. Hence, persistent and/or rising trade deficits will restrain the extent to which the budget deficit can rise. Obviously, countries with the most

20. Chartalist authors are careful to emphasize the importance of exchange rate flexibility to give more policy space to their proposals (<http://neweconomicperspectives.org/2011/08/mmp-blog-11-modern-money-theory-and.html>).

21. Pérez Caldentey (2009, cited from Pérez Caldentey and Ali 2011, p. 17, emphasis added) states: 'countries are said to be balance of payments constrained when their (current and expected) performance in overseas markets, and the response of the world financial markets to this (current and expected) performance, *shapes and constrains their domestic policy space, including that of fiscal and monetary policy.*'

This link between the budget and trade deficits does not imply a putative twin deficits type of relationship. It only suggests the reduced policy space for rising budget deficits in the event that a country is internationally uncompetitive relative to its rivals.

profitable and competitive firms will experience trade surpluses and will not experience the above constraints on expansionary fiscal and monetary policies.

Third, the above two issues jointly imply that if a country is experiencing persistent trade deficits, and thus accumulating foreign currency denominated debt, rising budget deficits will worsen its foreign debt problems unless it somehow succeeds in promoting industrial, public investment, and other policies to improve its international competitiveness (Chang 2004). There will thus be a need for additional taxation to finance the increased public expenditures because of the limits to rising budget deficits.

Weak currencies are vulnerable to attack by foreign exchange speculators, leading to their collapse, as happened to both developed and developing country currencies. Global financial deregulation has perhaps exacerbated currency crises (Eatwell and Taylor 2000). The point is that central banks in trade deficit countries will *attempt* to defend their currencies from large depreciation for fear of being attacked. This in turn implies that, even under (quasi) flexible exchange rates, central banks will not have complete freedom to passively accept the fiscal demands of the Treasury as long as the country is running persistent trade deficits that need to be financed via foreign capital inflows.

In an economy with capital controls, a government has more leeway to sell its debt to residents at relatively low bond rates of interest. Matters become quite different with relatively free international capital mobility when the state has to compete with foreign suppliers of bonds. In this situation, the constraints faced by the state to finance expenditures via bond sales are higher. Further, one could argue that more is at stake for a country that does not have an independent central bank when it desperately needs to attract foreign finance precisely because foreign creditors' aims are unlikely to be consistent with the policy objectives of the state or the larger society. For example, if the state has free access to the central bank, which can easily 'print' money to finance arbitrarily large budget deficits, then this might make foreign creditors fear *future* inflation even if there are no current inflationary pressures. Thus the central bank is likely to become more independent in such a situation and therefore less willing to absorb government, debt so as to make the country more creditworthy (Maxfield 1997).

On the other hand, because the US dollar is the dominant international currency, it is in a privileged situation, as the US's public and foreign debts are denominated in its own currency. The question is, are there any limits to how high US budget and trade deficits can go? Further, can the US dollar be subjected to attack, thereby necessitating the need for the Fed to defend it?

Clearly, with the dollar as the dominant international currency, the US has far more flexibility in accumulating large budget and trade deficits. Certainly, in the current world crisis, despite big deficits, foreign capital continues to pour in, so as to be invested in the relatively safe dollar-denominated assets. In short, in the current context the answer to the first question in the previous paragraph is likely to be negative.

However, as Eichengreen (2011) discusses, history teaches us that multiple international reserve currencies can coexist. It is therefore possible that, given its dominance internationally, the use of Chinese renminbis could become more pervasive internationally, thereby dislodging the dollar somewhat from its pedestal. However, Cohen (2012) and Prasad and Ye (2012) doubt the likelihood that the renminbis will displace the US dollar as the dominant international currency any time soon. Thus it is unlikely, in the foreseeable future at least, for there to be a wholesale international loss of confidence in the dollar.

In short, the persistent and rising US trade deficit, *contra* the discussion above regarding the BPCG framework, may prove to be far less of a problem for rising US budget deficits, at least for as long as the dollar maintains its hegemonic status. But other wealthy countries are less fortunately situated, so that their central banks are unlikely to have the full freedom to accommodate their state's fiscal needs. Finally, the limits to how high budget deficits get become much greater the wealthier a country is, as they determine its ability to attract foreign capital in the event that it is running persistent trade deficits and accumulating foreign currency debt. Needless to say, the fiscal space shrinks for poor countries experiencing persistent or growing trade deficits.

At the heart of the above argument regarding foreign trade is the role of capitalist firms and their profitability, which is jointly shaped by economic fluctuations and international competitiveness. Following Kalecki (1943) and Alexander (1948), we would argue that the political opposition of capitalists plays a major role in constraining how high budget deficits can rise.

From a Kalecki/Keynes perspective, this opposition might seem a paradox since budget deficits boost profits and '[t]here is no business opposition to those governmental activities that are clearly and positively associated with profits' (Alexander 1948, p. 194). And yet, as Kalecki and Alexander emphasized, by lowering unemployment, budget deficits reduce capitalists' ability to discipline workers and to hire and fire at will. Kalecki (1943, p. 3, emphasis added) observed:

Every widening of state activity is looked upon by business with suspicion, but the creation of employment by government spending has a special aspect which makes the opposition particularly intense. Under a *laissez-faire* system the level of employment depends to a great extent on the so-called state of confidence ... This gives the capitalists a powerful indirect control over government policy ... But once the government learns the trick of increasing employment by its own purchases, this powerful controlling device loses its effectiveness. *Hence budget deficits necessary to carry out government intervention must be regarded as perilous.*

Kalecki argued that the effectiveness of public investment as a policy tool will be compromised if it competes with private investment and/or if the government is seen by captains of industry to encroach into other areas of investment (*ibid.*, p. 3). If public investment competes with private investment, 'the profitability of private investment might be impaired, and the positive effect of public investment upon employment offset, by the negative effect of the decline in private investment' (*ibid.*). The implication of this last point is that capitalists will be supportive of, or at least not be opposed to, non-competing or even private investment-enhancing public investments. *It is also interesting to see here Kalecki's observation that capitalists may not consider all types of public expenditures to be profit-enhancing.*

On the other hand, Kalecki continued, the twin policy of lowering unemployment while expanding social expenditures would be 'violently opposed' (*ibid.* p. 3) by capitalists, as such measures tend to reduce 'market discipline' – that is, the unequal power relations between capital and labor in the workplace. In such a situation, Kalecki points out, "economic experts" closely connected with banking and industry' (*ibid.* p. 2) will evoke the doctrine of 'sound finance' to oppose both social expenditures and public investments that compete with private investment presumably as these expenditures become more extensive, thereby eroding the state of business confidence. For Alexander (1948, p. 196), even if the state left business investment decisions in the hands of business people, its pursuit of a full employment policy could be seen by the latter as a fatal

encroachment into the capital–labor relationship. One could argue that capitalists would oppose such encroachments even more in an economic crisis when one of their main goals is to cut wages, a goal whose effectiveness is reduced if a full employment policy is in place.

We would suggest that the Kalecki–Alexander arguments provide some important insights into the cuts in the public investment shares, which date from the mid 1970s in many countries (see Figure 2). As a number of authors have documented (Useem 1983; Vogel 1983; Akard 1992; Phillips-Fein 2009), the decade of the 1970s, with its deep economic crisis, constituted a watershed in terms of business mobilization against the Keynesian Welfare State (KWS), particularly in the US and UK. Falling rates of profit (Useem 1983; Akard 1992; Shaikh 1992) combined with left-leaning policies and politics in the early 1970s lowered business confidence and constituted the context of this opposition to the KWS. While growing labor militancy and various pro-labor policies supported by the Labour Party deepened business animosity in the UK, in the US it was the growth of social expenditures and business regulations that generated the identical effect among business groups. Across-the-board federal expenditures on regulatory policies rose sharply in this period (Useem 1983, p. 295; Vogel 1983, pp. 24 and 29). Increased government regulations on workplace safety and the environment raised business costs and, by some estimates, depressed profit rates even more (Vogel 1983, pp. 25–26). Significantly, from the Kalecki–Alexander perspective, Bowles and Gintis (1982) argue that the growth of social expenditures lowered the disciplining effect of unemployment on wages and work effort. All of these adverse consequences on business costs, which generated business support for austerity policies, happened in the context of growing international competitive challenges from firms located in low-wage countries, forcing US (and other OECD) firms to lower wage and other costs (Peschek 1989).

The struggle to unshackle costly business regulations, reduce the social safety net to decrease labor militancy, render job creation programs toothless²² (Cypher 1980, p. 340), and cut business taxes was at the core of the political mobilization of powerful business groups against the KWS. The fact that the political and policy climate changed so dramatically between the early and late 1970s, culminating in the elections of Reagan and Thatcher, is a stark reminder of the political power of these groups. As Phillips-Fein (2009, p. 198) observes, Clinton’s neoliberal policies in the 1990s have their roots in those of Carter, who had distanced himself from the legacy of the New Deal.

This effective political mobilization cast long shadows, with the establishment of monetarism as the conventional wisdom over the last 30 years. We would suggest that monetarism has been ideologically successful above all because of its labor-controlling power via the constraints imposed on fiscal policy. The control of labor is one central means by which firms have attempted to cope with crisis and low-wage international competition. This, we think, is why the Kalecki–Alexander argument is relevant to our understanding of the policy of fiscal austerity. For example, the EMU’s joint goals of ‘labor market flexibility’ and fiscal–monetary austerity are clearly linked, as the latter reduces the state’s capacity to pursue expansionary policies, shrinks social budgets, and increases unemployment (Hermann 2007, p. 78). One of monetarism’s main goals was to deregulate labor markets (*ibid.*, p. 64). Significantly, from the standpoint of Kalecki and Alexander, influential business groups such as the

22. See also <http://crywolfproject.org/taxonomy/term/56> for a discussion of the Humphrey–Javits and Humphrey–Hawkins bills, which had as their objectives policies to promote full employment.

Association for the Monetary Union of Europe (AMUE) were centrally involved in lobbying for the creation of the EMU (*ibid.*, p. 79).

The crisis of business profitability hit other OECD countries such as Sweden too (Pontusson 1994, pp. 99–100; Edvinsson 2010). While differences in business–labor–state relations shaped the form that neoliberalism took, with Sweden’s variant never reaching the extreme Reagan/Thatcher one, a common denominator was the effect on public investment (see Figure 2). For one thing, privatization of public assets became widespread across the OECD, including the Nordic countries and especially Sweden (Wahl 2011, pp. 55–60). From the standpoint of businesses pushing for such policies, privatization served several purposes. It weakened powerful public sector unions. Furthermore, it enabled private firms to enter new lucrative markets (for example, in public transport or water supply systems) that were hitherto walled off to private enterprise.²³

Moreover, heightened global competition in this period led to the acceleration of outsourcing to low-wage countries outside the OECD. This implied relatively less reliance on domestic infrastructure to promote competitiveness and thus profitability. In short, as infrastructure investment declined, less was at stake for firms because of global outsourcing.

As an extension to the Kalecki–Alexander argument, we would propose that the relationship between business investment and budget deficits is possibly a non-linear one, with the nature of the non-linearity being shaped by booms and slumps. For example, aside from raising aggregate demand, the growth of government spending may stimulate private investment by raising the turnover rate and/or lowering indirect costs (such as transport costs because of better roads or access to skilled labor educated at public institutions), while, at the same time, altering the balance of power between capital and labor as unemployment falls. This latter effect would tend to embolden workers’ political power and thus negatively impact private investment. An expansion of the welfare state may also expand the bargaining power of workers, while the growth of government regulations will also raise business costs. Finally, as Kalecki observed, certain types of public investment may also compete with private investment.

Such policies would be resisted by capitalists unless they were accompanied by, say, a Danish-style *flexicurity* arrangement. Growing deficits, beyond what capitalists deem ‘acceptable,’ will either result in rising business opposition to such policies or a slowdown of investment if the government does not slow down the deficit growth. In short, as an additional extension to Kalecki’s basic insight regarding the ‘push back’ by capitalists, we would suggest that the quality and composition of government spending, as well as the broader political/institutional context,²⁴ matter with regard to capitalists’ ‘tolerance limit’ for expansionary fiscal policies. Partial nationalization of troubled companies may have a positive impact if their capitalist owners are *willing* to shift their capital to other ventures; on the other hand, nationalization of profitable private companies will generate fierce opposition by capitalists, leading to the plummeting of business confidence and investment. Finally, if an increase in public investment is accompanied by an expansion of the welfare state that emboldens workers, capitalists’ business confidence may fall unless such policies are accompanied by subsidies and other ‘business friendly’ policies.

23. In the current crisis, a powerful corporate lobbying group called Business Europe is working with the European Commission to privatize a range of state-owned assets as governments scramble to raise revenue (Zacune et al. 2012).

24. For an excellent example of the way in which the political/institutional context shapes business investment decisions, see Hanley (2010) regarding GE’s decision to invest in Arizona, a Right-to-Work state.

Simply put, while growing budget deficits may be stimulatory, a limit up to which the state can get away with high deficits is reached if the increased state intervention generates a fall in business confidence because of declining profit expectations. Such a non-linearity was implicitly recognized by Alexander (1948, p. 197) when he stated that while deficits will be seen by business people as ‘the end of free private enterprise,’ they are also aware that the absence of deficits in a depression implies the end of this economic system.

We will conclude the Kalecki/Alexander arguments by recalling Keynes’s observations regarding business expectations and the political context (Keynes 1936 [1953], p. 162):

This means, unfortunately, not only that slumps and depressions are exaggerated in degree, but that economic prosperity is excessively dependent on a political and social atmosphere which is congenial to the average business man. If the fear of a Labour Government or a New Deal depresses enterprise, this need not be the result either of a reasonable calculation or of a plot with political intent; — it is the mere consequence of upsetting the delicate balance of spontaneous optimism.

Hence the conundrum faced by social democratic policies in a crisis. As Polanyi (1944, p. 234) observed:

...the reform of capitalist economy by socialist parties is difficult even when they are determined not to interfere with the property system. For the mere possibility that they might decide to do so undermines that type of confidence which in liberal economy is vital, namely, absolute confidence in the continuity of the titles to property.

Given these arguments made by Kalecki, Alexander, Keynes, and Polanyi, we would conclude that social democratic policies need to involve a negotiated or bargaining process between the state and business. This is a tortuous process, cannot be formulated in technocratic terms, and is historically contingent. We deal with these issues in the next section.

5 POLICY ALTERNATIVES AND CHALLENGES

In the current global unemployment crisis, central banks could become development-oriented banks (Epstein 2005) by providing finance for public investment programs.²⁵ Of course, central bank financing of public investment will not escape external financial constraints in the case of a small country running persistent trade deficits, as discussed in the previous section. We would argue that taxation revenue

25. Consider, for example, the National Infrastructure Bank Act of 2007 proposed by US Senators Christopher Dodd and Chuck Hagel. The idea behind this proposal was the creation of an independent public sector bank charged with the mission of financing public investments – see *New York Times* article, ‘In Banking, Should There Be a “Public Option”?’, <http://www.nytimes.com/roomfordebate/2013/10/01/should-states-operate-public-banks>. This article features a debate among those for and against public banking. Interestingly, the CEO and President of the publicly owned Bank of North Dakota makes the point that the success of this bank, which was created about 100 years ago, rests on the fact that it never competes with private financial institutions but acts as their ‘partner.’ This is quite significant, not only because the North Dakota legislature is Republican, but also because this *modus operandi* of the BND is consistent with Kalecki’s (1943; 1945) observation that state-owned enterprises will only be successful in capitalism as long they do not compete with private ones.

to bolster the public savings rate should be another means to finance a capital budget, a policy proposal which follows Keynes and was elaborated upon in Section 2.

And yet free market policies over the last several decades have led to a drop in tax revenues for many states because of the pursuit of cuts in direct taxes. Furthermore, the lowering of import tariffs has produced the fall of an important source of taxation revenue, in particular for developing countries such as Mexico (Weisbrot and Baker 2002), whose states depend to a large extent on indirect taxes. One way out of the fiscal crunch thus produced is the financial transactions tax (FTT) which has been discussed extensively in recent years both as a means to deter speculative activity but also as an important source of state revenue (Baker et al. 2009). Recently, a bill to create an FTT was sponsored in Congress, on the heels of a decision by 11 European Union countries to create such a tax.²⁶ Finally, as Kaldor discussed, another important source of taxes, especially in developing countries with large disparities in income and living standards, would be the luxury consumption of elites (Palma and Marcel 1989, pp. 250 and 252).

As is evident from the discussion in Section 4, however, it is misleading to propose economic policies by ignoring the political context. As discussed in the previous section, a number of authors have discussed the institutional mechanisms via which business groups have historically played a central role in shaping the nature of public policies in many countries (Pontusson 1994; Ferguson 1995; Farnsworth 2004). For example, Farnsworth studies the important role of the Confederation of British Industries (CBI) in influencing state policies under both Conservative and Labour governments in the UK since the 1980s. The following quote from a CBI document is significant:

During the year the CBI kept up pressure on the Government to achieve restraint in the real growth of government current spending and to get the resources saved directly into capital expenditure ... The CBI pressed the Government hard to step up its expenditure on trunk roads, by-passes, sewers, and other infrastructure – especially important in view of the burden of recession which has been borne by the construction industry ... [This] would generate employment and would benefit the cost competitiveness of British industry as a whole, for example through reduced transport costs. (CBI, *Annual Report*, 1992, cited from Farnsworth 2004, p. 93)

Since cuts in current spending involve the downsizing of the welfare state, the above statement captures fairly well the ‘business vision’ of public investment – the expansion of pro-business public spending at the expense of social expenditures. On the other hand, social policies that directly helped businesses tended to be supported by the CBI (*ibid.*, pp. 93–94). This policy combination appears to be central to the Right’s approach to fiscal policy in the contemporary crisis.²⁷

26. See the article in *The Nation* at <http://www.thenation.com/blog/173134/financial-transactions-tax-introduced-again-can-it-pass-time#>.

27. See the article in *The New York Times* (April 10, 2013) which discusses the lobbying effort of the American Road and Transportation Builders Association (ARTBA) to increase federal spending on infrastructure projects (http://www.nytimes.com/2013/04/10/us/politics/american-conservative-union-fighting-spending-cuts.html?pagewanted=all&_r=0). As the article points out, ARTBA supports the American Conservative Union (ACU), which also supports increases in both infrastructure and military expenditures. It would be fair to assume that an organization such as the ACU is not sympathetic to the expansion of the welfare state.

In its current budget, the Conservative Party proposes increases in infrastructure spending coupled with social austerity – see <http://www.nytimes.com/2013/06/27/world/europe/austerity-remains-key-to-britains-economic-plan.html>.

This does not imply the inevitability of this policy mix. After all, while circumstances are different today, the New Deal was implemented contra the doctrine of *laissez-faire* that reigned through the end of the Hoover administration. Not surprisingly, political mobilization for social relief was necessary, even though not sufficient, for the construction of New Deal-type policies in the US and abroad. One may recall the words of the conservative Congressman Hamilton Fish who, seeing the social and political turmoil of the Great Depression, observed: ‘if we don’t give [security] under the existing system, the people will change the system. Make no mistake about that’ (quoted from Rose 2009, p. 18).

This raises an important question. Given the political reach of powerful business groups, whose main priority is the promotion of pro-business public expenditures and policies in general, what scope is there for unions and progressive social movements to push back against austerity programs and reinvigorate the social democratic strategy envisaged by Keynes?

There are no easy answers to this question. However, one may provide a partial response by considering the New Deal, especially since the current crisis is frequently compared to the Great Depression of the 1930s. On the one hand, as Leighninger (2007) discusses, the New Deal’s record of long-term public investment projects is truly impressive, as is, of course, the fact that the Social Security Act of 1935 was a landmark piece of legislation in US history. And yet, as Rose (2009) discusses, some of the New Deal’s programs were met by powerful and successful business opposition, forcing the Roosevelt administration to scale back several projects. The unemployment rate fell from a peak of 25.2 percent in 1933 to 17.2 percent in 1939 (ibid., p. 17), showing that some combination of private investment and public expenditures provided a sufficiently strong stimulus to bring the unemployment rate down, although it remained at a staggeringly high rate by the close of the decade. Together, these facts suggest that the New Deal was not dramatically successful in counteracting private sector lay-offs but, on the other hand, it was quite effective in installing the institutions of the modern American welfare state.

In short, one can infer that a complex bargaining process was involved between the state and business in which social reform measures were implemented, which, while they may not have been the primary preference of capitalists, might have been accepted by them as a form of strategic accommodation to the new political realities of the times (Korpi 2006). It could be argued, more generally, that states might get capitalists to accept social democratic policies – albeit begrudgingly – if these are accompanied by an acceptable incentive structure.

Thus it is important from a policy perspective to analyse the specific state–business–society policies and institutions that may both strengthen business competitiveness, reduce the chances of an ‘investment strike,’ and promote broader social goals. A relatively durable compromise may for a time be achieved if business is offered *and accepts* an appropriate incentive structure by the state. For example, one response to Kalecki and Alexander would be that state investment in an efficient high-speed transportation and communications network or ‘green investment’ infrastructure may sufficiently lower business costs even though such a policy would lower the unemployment rate. Obviously, much will depend on how such a policy is accompanied by other ones such as business taxes, subsidies, etc., and, crucially, the extent to which business does not see its hegemonic position threatened.

Austerity is not inevitable. But it would be equally problematic to argue that social democratic policy goals can be attained and held without being challenged by capitalists when profitability is threatened. While, as Steinmo (2010) argues, Swedish society

has been able to push back against Reagan–Thatcher types of social policies,²⁸ its famed social model has developed widening cracks over the past several decades with growing inequality, social exclusion, and (as shown in Figure 2) a dramatic decline in the public investment share.²⁹

The question is how wide can these cracks get and what can popular pressure do to repair them? There is no facile answer to this question and its investigation requires further research on the political factors in a society that can lead to the creation of social democratic policies and make them ‘sticky,’ so that it is difficult to radically change them, particularly in democratic societies. After all, a relatively autonomous *democratic* state also needs legitimation from politically-mobilized non-capitalist members of society. This means that entrenched social democratic policies may be difficult to dislodge if they are widely supported. As Schumpeter (2008, p. 12) put it: ‘Social structures, types and attitudes are coins that do not readily melt. Once they are formed they persist, possibly for centuries...’

6 CONCLUSION: TOWARD A CONTESTED CONCEPTUALIZATION OF POLICY

In this paper we have shown that the rationale for increasing public investment can be provided on both theoretical and historical grounds. Furthermore, despite these reasons, the public investment share in many OECD countries was squeezed down as public saving shares declined, with the pressure arising principally from growing budget deficits. Finally, we investigated the factors which generated cutbacks in budget deficits. Following Kalecki and Alexander, we argued that fiscal austerity, pushed by powerful business groups in the 1970s and beyond to attain labor market flexibility, was one of the key reasons for these and other cutbacks related to welfare state expenditures.

This last issue constitutes a crucial conundrum for social democratic policies, to the extent that the goal of such policies is not only to stimulate business investment but also to strengthen the social safety net. Given the structural power of business investment in capitalist societies, the key challenge for social democracy is to establish a *quid pro quo* with powerful business groups so that public investments that stimulate private investment do not come at the expense of other types of socially important public expenditures.

28. So that even right-of-center parties adopt some elements of social democracy (Steinmo 2010, pp. 80 and 86). It should be noted that this ability to ‘push back’ against neoliberalism is not necessarily a wealthy-country phenomenon. There is now a growing literature on successful poorer states (see, for example, Sandbrook et al. 2007) that have done a creditable job of strengthening their social protection mechanisms. As authors in this literature argue, states have been dynamic and flexible enough to foster new development strategies to attract domestic and foreign private investment while maintaining a strong role for public sector institutions and investment projects.

29. See, for example, ‘Swedish Riots Rage for Fourth Night’ in *The Guardian* (<http://www.guardian.co.uk/world/2013/may/23/swedish-riots-stockholm>). See also Wahl (2011), regarding successful efforts by economic elites to roll back the welfare state in advanced social democracies. Finally, see the discussion on growing inequality in Sweden in the Real-World Economics Review blog: <http://rwer.wordpress.com/2013/05/23/swedens-30-years-of-income-redistribution/#more-12768>.

We would suggest that in this age of austerity a revitalization of a rights-based and universalist approach to social policy requires the need for a new Keynesian Consensus³⁰ on how policy goals should be framed. Such a new policy framework has to *centrally* incorporate the unequal power relations in capitalist societies. As Peter Gourevitch put it in his *Politics in Hard Times*:

Policy requires politics. Ideas for solving economic problems are plentiful, but if an idea is to prevail as the actual policy of a particular government, it must obtain support from those who have political power. Economic theory can tell us a lot about policy alternatives, *but unless our economics contains an understanding of power*, it will not tell us enough to understand the choices actually made.

In prosperous times it is easy to forget the importance of power in the making of policy ... In difficult times this comfortable illusion disintegrates. (Gourevitch 1986, p. 17, emphasis added)

In short, macroeconomic theory based on Keynes and Kalecki provides us with a theoretical *justification* for expansionary fiscal policies, but by itself tells us nothing about the actual *determination* of such policies, given the role that business and other groups play in shaping such policies. Thus it is necessary to understand the institutional means by which capitalist power is exercised (in particular with attempts to make the welfare state and labor market institutions more market-conforming) and the ways that the countervailing opposition from workers and other groups in civil society (say environmentalists) attempts to secure the latter's social objectives via appropriate policies and institutions.

A number of authors have argued that policies and institutions vary endogenously through time (Streeck and Thelen, 2005; Streeck, 2009; Paster, 2012) as businesses attempt to restructure them when changing economic circumstances (for example, the rise of new global competing firms or major economic downswings) make certain existing social, labor, or taxation policies onerous. We would argue that the new Keynesian Consensus on policy issues has to incorporate such a dynamic analysis. There is a practical reason for such a study: it will enable a better understanding of the factors that could make progressive policies endure or 'stick' rather than erode over time and be replaced with more market-conforming ones. While this is a general theoretical point, we would say that it is particularly relevant to the discussion of public investment, given its centrality to Keynes's long-term alternative vision of society.

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30. We would like to thank one of the referees for suggesting this term.

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