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**Working Paper**

## Fiscal austerity and public investment: Is the possible the enemy of the necessary?

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MPIfG Discussion Paper 11/12

**Fiscal Austerity and Public Investment**  
Is the Possible the Enemy of the Necessary?

Wolfgang Streeck and Daniel Mertens



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**Fiscal Austerity and Public Investment: Is the Possible the Enemy of the Necessary?**

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## Abstract

In most rich democracies one finds a tendency for the share in public finance that is available for discretionary spending to shrink. This is because tax revenues do not keep pace with simultaneous increases in fixed expenditures and growing pressures for fiscal consolidation. The present paper assesses the capacity of governments under conditions of fiscal austerity to shift financial resources within the shrinking share of discretionary expenditure from old to new purposes, and thereby fund future-oriented investment aimed at making societies more equitable and efficient. For this reason an indicator for *soft public investment* is developed, which includes public spending on education, R&D, family support, and active labor market policy. We present data for Germany, Sweden, and the United States for the years 1981 to 2007 in order to explore the general dynamics of consolidation policies under the expectation that far more ambitious consolidation attempts will be made in the coming decade. Our results suggest that the capacity of governments to shift resources towards soft public investment decreases as pressures for fiscal consolidation increase.

## Zusammenfassung

In den meisten reichen Demokratien lässt sich die Tendenz ausmachen, dass der Anteil diskretionärer Ausgaben an den öffentlichen Haushalten zurückgeht. Ursächlich dafür ist, dass die Steuereinnahmen nicht hoch genug sind, um die parallele Zunahme gebundener Ausgaben sowie den gestiegenen Konsolidierungsdruck auffangen zu können. Das Papier untersucht, inwiefern Regierungen unter den Bedingungen fiskalischer Austerität in der Lage sind, finanzielle Mittel innerhalb des diskretionären Ausgabenanteils von alten zu neuen Aufgaben zu verschieben. Dies betrifft insbesondere die Finanzierung zukunftsorientierter Investitionen, die darauf abzielen, Gesellschaften gerechter und effizienter zu gestalten. Zu diesem Zweck wird ein Indikator für „weiche“ öffentliche Investitionen entworfen, der Ausgaben für Bildung, Forschung und Entwicklung, Familienunterstützung und aktive Arbeitsmarktpolitik enthält. Angesichts der Erwartung weit ambitionierterer Konsolidierungsversuche im kommenden Jahrzehnt werden auf der Basis von Daten für Deutschland, Schweden und den Vereinigten Staaten für die Jahre 1981 bis 2007 allgemeine Dynamiken der Konsolidierungspolitik herausgearbeitet. Die Ergebnisse weisen darauf hin, dass die Fähigkeit von Regierungen, mehr Ressourcen für „weiche“ Investitionen bereitzustellen, in dem Maße abnimmt, wie der Konsolidierungsdruck zunimmt.

**Contents**

1	Introduction	1
2	Public investment: “Hard” and “soft”	1
3	Method and case selection	4
4	Variables and data	6
	Soft public investment	6
	Fiscal stress	18
5	Results	20
	Germany	20
	Sweden	21
	United States	22
6	Democratic state capacity in decline	23
7	Conclusions	25
	References	28

# Fiscal Austerity and Public Investment: Is the Possible the Enemy of the Necessary?

## 1 Introduction

In previous work we have shown how fiscal austerity in rich democracies may be accompanied by an increase in mandatory, or fixed, expenditure and a decline of the share of public spending over which governments and legislators have discretion (Streeck/Mertens 2010b). For example, in Germany the share of the federal budget that was left after politically or legally inflexible expenditure on personnel, defense, debt service, social assistance, and social security<sup>1</sup> declined between 1970 and 2008 from 40 to 22 percent (Streeck/Mertens 2010b: 14). The decline was paralleled by a steady increase in public debt during the same period.

If there is indeed a tendency for the share in public finance that is available for discretionary spending to shrink (Steuerle 1996; Cordes 1996; Pierson 2001; Rose 1990; Rose/Davies 1994), this must raise the question of how long governments will continue to be able to fund future-oriented public investment in response to changing social needs or aimed at making societies more equitable and efficient. With pressures for fiscal consolidation increasing, debt servicing becoming more expensive – at least potentially – and the “immovable objects” (Pierson 1998) of public policy claiming a growing percentage of stagnant or even declining tax revenues, maintaining the level of public investment – never mind increasing it – would require shifting resources within the shrinking share of discretionary expenditure from old to new purposes. The aim of this paper is to assess the capacity of governments to do this.

## 2 Public investment: “Hard” and “soft”

Not all that is left in public budgets after fixed obligations have been met is available for public investment. Discretionary spending includes a wide variety of rather idiosyncratic items that are difficult to classify and often impossible to compare cross-nationally.

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An earlier version of this paper was presented at the “Democracy in Straightjackets: Politics in the Age of Permanent Austerity” conference at Ringberg Castle, Germany, in March 2011. We would like to thank the participants for their valuable comments.

1 We define “mandatory” as “politically or legally inflexible.” Formally and ultimately, governments can cut any spending obligation, including pensions and debt servicing. But some items are more legally rigid or politically costly to cut than others. Also, what may be discretionary in one country may be de facto mandatory in another. For a militarily active superpower such as the US, defense spending seems discretionary, while for some of its NATO allies, such as Germany, it is mandated by international agreement, in particular with the United States.

Moreover, public investment, as defined in standardized national account statistics, is limited to a country's physical infrastructure, such as roads, railways, canals, and bridges; to capital goods used by government, such as office machinery; and to improving and maintaining the existing capital stock – what is technically called “government gross fixed capital formation.”<sup>2</sup>

There are indications that such spending has been in decline for several decades in most countries as a result of fiscal pressure. For example, de Haan, Sturm and Sikken (1996) report for the period between 1980 and 1992 a decline in government gross capital formation in the great majority of 22 OECD countries, in terms of both GDP and total government expenditure. The explanation offered is increasing “fiscal stringency,” as indicated by a country's cyclically adjusted deficit. Keman (2010), looking at the relationship between public investment and total government outlays between 1992 and 2004, finds a further decline for 11 out of 18 OECD democracies, which he explains as “collateral damage” resulting from a general downsizing of government spending. Similarly, Breunig and Busemeyer (2010), who use data on 21 OECD countries from 1979 to 2003, report a negative impact of fiscal austerity on the share of government spending devoted to public investment, which they account for as a result of a simultaneous increase in the share of non-discretionary entitlement spending, in particular on pensions.

Arguably, however, it is not exclusively or even primarily “hard” public investment that should be looked at in the context of the social and political effects of fiscal austerity. Much of such spending is difficult to compare between countries as it depends on and may be required by both natural conditions and a country's economic development. For example, Hungary inevitably spends less on tunnels than Switzerland, and Austria less on dams and canals than the Netherlands. More importantly, there are likely to be saturation points beyond which further construction is not needed, or may even not be desirable for environmental or other reasons.<sup>3</sup> We therefore believe that attention should be paid primarily to a different sort of public investment which to us seems to be of foremost importance for contemporary rich societies. By this we mean not physical but what we call, for want of a better term, “soft” investment, defined as a specific sort of public spending aimed at creating conditions required for the prosperity and sustainability of a “post-industrial” or “knowledge society.”<sup>4</sup>

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2 The exact definition of public investment has always been contested. We rely here on OECD (2009a: 44).

3 Construction of additional autobahns in Germany would probably add very little to an already well-developed infrastructure, not to mention that it might be counterproductive in terms of environmental protection.

4 That there is more to public investment than material infrastructure – which would seem to call for a wider conceptualization of the term – is increasingly acknowledged. For example, the revised System of National Accounts of 2008 discusses the need to incorporate spending on R&D and education in gross fixed capital formation (United Nations et al. 2009: 8, 206). There is also the concept of “social investment” (as in Morel/Palier/Palme 2009) which is increasingly being used for a new kind of supply side-oriented social policy aimed not at the “de-commodification” of labor (through what is called “social consumption”) but at improving its “employability.” We believe that “social investment” basically refers to the same thing as our notion of “soft investment.”

In particular, we distinguish four categories of public spending that we consider soft investment in this sense: spending on (i) *education*, on (ii) *research and development*, on (iii) *active labor market policy*, and on (iv) *families*. Spending on education and on research and development supports human capital formation and industrial innovation and enhances economic prosperity and, perhaps, social equity. Education also serves to help integrate immigrants and their children into the national economy and society. Active labor market policy is to improve the “employability” of people at risk of becoming long-term unemployed, mostly by training but also by other measures that promote their social and economic inclusion.<sup>5</sup> Family policies, finally, are intended to enable women to have children while being gainfully employed, and to improve the opportunities of children from less well-to-do families:

[They] are defined as those policies that increase resources of households with dependent children; foster child development; reduce barriers to having children and combining work and family commitments; and, promote gender equity in employment opportunities.  
(OECD 2011)

Can democratic countries rededicate fiscal resources while policy legacies endure and the means available for government intervention are shrinking? It may matter in this context that in no country does soft public investment occupy a large share of government spending. For example, in Germany in 2007 the four items we have grouped in the category together amounted to roughly 15 percent of total government spending, including the federal government, the *Länder* and local communities. That the share of public spending that is devoted to soft investment is relatively small is not necessarily bad news: it may mean that skillful governments with enough political willpower might be able to protect it from being cut under fiscal stress, or even gradually to increase it as other expenditures, among them those on physical infrastructure (see above), have to be or can be reduced. If governments were in fact able to shift resources from other discretionary items to investment, or perhaps simply from hard to soft investment, fiscal stress – as resulting from factors such as political and economic pressures for fiscal consolidation, combined with domestic tax resistance and international tax competition – would at least not completely eliminate the capacity of democratic states to prepare their societies for new collective needs.

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5 According to an authoritative International Labour Office source, active labor market policies (ALMPs) “contribute to an improvement in the participants’ employability and thus increase their re-employment prospects. ALMPs can also be used to achieve greater equity by favoring more disadvantaged labour market groups. In addition to these functions, they are also one of the imperative measures that help create more income and employability security in times of multiple labour market changes” (Auer/Efendioglu/Leschke 2008: 19).



### 3 Method and case selection

In the present paper we trace the impact of fiscal stress on soft public investment for three countries over a period of almost three decades, from 1981 (which is the first year for which comparable data are available) to 2007, the year before the “Great Recession.” There are several reasons why we have opted for a three-country longitudinal rather than a multi-country cross-sectional design. One is that data on soft public investment are not easy to compile and compare between countries and over time, especially if one lacks detailed information on national institutions and changing accounting practices, which can be acquired only for a limited number of cases. Another is that snapshot-style cross-national comparison, looking at a multitude of countries at a given moment, misses the historical dynamics of and interdependencies between the cases under study. While it promises to reveal general causal relations of the “If A, then B” sort – a promise it is, however, very unlikely to keep – it cannot detect the extent to which countries’ longer-term trajectories resemble each other. Nor can it determine whether differences between countries observed at the time of comparison are due merely to differences in the speed and timing of a parallel movement along a common path.

Static comparison fails to do justice to changing historical conditions that affect all country cases, such as the end of inflation in the OECD countries and the associated general decline in interest rates in the 1980s. Also, the defense of soft investment against pressures for austerity, and even more the redirection of resources from old to new policy objectives, can only be a long-drawn-out process that must continue over more than a few years to produce stable results, and must therefore be observed over a sufficiently long span of time. Similar spending levels may mean different things if spending in one country has been declining for years while in the other it has been continuously increasing. In fact, whether soft investment is high or low at a given time may be less indicative of a country’s capacity for fiscal innovation than whether it is rising or declining. In light of this we have decided to focus on trends rather than conditions, and on dynamic rather than static similarities and differences.

The three countries we have selected for our study are Germany, Sweden and the United States. Germany, of course, is the country we know best – which, given the institutional complexities of fiscal policy, is a good enough reason for including it. More importantly, Germany appears on many counts to be a non-exceptional, intermediate, more or less average case: the government share in its economy (at 44 percent of GDP in 2007) and its level of taxation (40 percent) are neither particularly high nor low by OECD standards, and the same applies to its public debt (at 65 percent). Still, like most other countries, public budgets were in deficit most of the time from the early 1970s onward, and accumulated debt has risen steadily, provoking public concern and repeated attempts at fiscal consolidation, including the social security reforms of the second Schröder government (2002–2005; Streeck 2009).

Sweden and the United States, by comparison, are extreme cases, at opposite ends of the spectrum. Sweden, representing the Scandinavian version of the postwar welfare state, continues to be the prototypical high-tax economy (with a government share of 51 percent and a taxation rate of 49 percent in 2007). In fact, although government spending was always very high, public deficits were rare, and in 21 of the 39 years from 1970 and 2008 the Swedish state ran a budget surplus.<sup>6</sup> This did not protect the country from fiscal stress, however. While fiscal problems in Germany have accumulated slowly and steadily since the 1970s, with budget deficits almost every year, Sweden suffered two dramatic crises, one in 1982 and the other in 1992–93. Both crises instantly produced extremely high public deficits followed, however, by aggressive and highly successful efforts at fiscal consolidation, especially in the 1990s. Whereas the level of taxation has recently declined – in 1990 it was as high as 53 percent of GDP, and in 2000 it was 52 percent – it is, at 49 percent, still higher than in most other countries. Government indebtedness, for its part, has returned to a relatively low level (48 percent of GDP in 2007).

As to the United States, the country traditionally figures as the prime example of a modern economy with low government spending (37 percent of GDP in 2007), low taxation (28 percent), and a very small, “liberal” welfare state. Unlike Sweden, and more than Germany, tax resistance is high and government social intervention of almost any sort is not popular. Nevertheless, fiscal stress has been endemic since the end of inflation in the early 1980s, with huge deficits in the federal budget and a high public debt due to stagnant growth, repeated tax cuts, and occasional invasions of far-away countries. Renewed economic growth in the 1990s and a policy of austerity aimed at budget consolidation resulted in momentary surpluses which, however, were soon wiped out by further tax cuts and the rising cost of the wars in Iraq and Afghanistan. In 2007, government debt was at 62 percent of GDP, having been as low as 55 percent in 2001. Also, non-discretionary mandatory expenditure not including defense had increased to 66 percent of tax revenue, compared to 39 percent in 1970. Counting defense as non-discretionary, the mandatory share of the American federal budget in 2007 amounted to roughly 85 percent of tax revenue. For 2010, it was forecast in the spring of that year to rise, in the wake of the “great recession,” to an astonishing 140 percent (Streeck/Mertens 2010a).

In the following we will analyze the development of soft public investment under fiscal stress in Germany, Sweden and the United States during the run-up to the financial-fiscal crisis that began in 2008. The reason why our analysis ends in 2007 is not just that the crisis threw public finances in deep disarray for the foreseeable future, for a majority of advanced countries. More importantly, the period that began in the mid-1990s was one of a sustained endeavor throughout the OECD countries to consolidate government finances. Major efforts were made, under the leadership of the Clinton administration and international organizations such as the World Bank and the International Monetary Fund, to rein in the accumulation of public debt that had begun, at

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6 In Germany this was the case in only five years, and in the United States in only four.

the latest, with the conquest of inflation in the early 1980s. As a matter of fact, public debt as a percentage of GDP fell in the United States by 17 percentage points between 1995 and 2001; by 18 percentage points between 1993 and 2007 in Sweden; and by almost 4 percentage points between 2004 and 2007 in Germany (Table 7). While the crisis undid most of the achievements of the consolidation policies of this period, politically difficult as they undoubtedly were, we consider the fiscal experience of these years to be highly indicative of what is to be expected of the era of, inevitably, incomparably stricter austerity policies that lies ahead, not least with regard to the fate of public investment under fiscal stress.

Another point that we would like to emphasize is that ours is not a study of public finances per se, or of educational or any other spending. Rather we are interested in the development of democratic states' capacities under conditions of fiscal austerity, which is what we must expect in the coming years. Questions that we will address include whether a country with traditionally very high and highly redistributive public spending, such as Sweden, is likely to be able – going by the experience of the 1990s and 2000s – to defend its future-oriented public investment against ever mounting pressures for fiscal consolidation and convergence on a more “normal” pattern of public finance, such as the German one. We will also explore whether a country such as Germany, traditionally with much lower public investment than Sweden, will have the political capacity to avoid emulating the United States, or whether, to the contrary, it could with any degree of realism be expected to develop in a Scandinavian direction, given the widely recognized rising importance of public support for education, research and development, work skills, and families. Finally, the United States will serve as a baseline for assessing whether traditionally non-liberal capitalist systems, such as Germany and Sweden, may be converging under fiscal pressure toward a more liberal pattern of public spending.

## **4 Variables and data**

### **Soft public investment**

In this section we present our data on the four components of what we call “soft public investment.” We also discuss how we combine its four categories – spending on education, research and development, active labor market policy, and family support – into an aggregate measure. Unlike some (Breunig/Busemeyer 2010; Keman 2010), we are not interested primarily in the size of public investment expenditure relative to total state expenditure; for our purposes, this is too much influenced by the overall state share in the national economy, and makes substantive sense only where budgetary authority is cen-

tralized.<sup>7</sup> Instead, we measure public investment in relation to GDP; in other words, in terms of its share in a country's annual economic output. We believe that this is the best way of capturing a state's real political efforts, certainly comparatively and also over time.<sup>8</sup>

### *Education*

The main source of data on government expenditure on education is the annual OECD publication *Education at a Glance* (OECD 1992–2010). Drawing in addition on data from the OECD's *Public Educational Expenditure 1970–1988* (OECD 1992: 84), we were able to compile a longitudinal data set extending from 1981 to 2007. The data reflect public expenditure on educational institutions, which is the most consistent time series available. It includes all spending by government agencies on teaching, such as teachers' salaries and the costs of teaching materials; buildings; administration; student transportation and housing; research and development in higher education; and public services provided by educational institutions. Public subsidies to private households intended to cover student living costs, such as student loans, are not included;<sup>9</sup> neither are subsidies to private entities, such as firms, trade unions and churches, unless they are in support of apprenticeship programs.

Government expenditure on education is reported to international organizations by national statistical and educational offices and jointly compiled by UNESCO, OECD and Eurostat (UOE). Considering the scope of our research, two issues arise with the definition and coverage of the UOE data. First, the data do not include education-related tax reductions. Second, and more importantly, definitions have changed over time, which has caused gaps in coverage. Data are missing for 1989, the year before *Education at a Glance* was established (and in the case of Germany, also for 1990, the year of unification), and for 1996 when a revised *International Standard Classification of Education* (ISCED 97) was on its way. Although extensive, the revisions do not seem to have caused a severe distortion in the overall level of public expenditure on education as measured. To make our time series continuous we have chosen to estimate the missing values by the arithmetical mean between the two nearest years.

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7 Breunig and Busemeyer (2010) use the measure to explore trade-offs and interdependencies between budget categories.

8 A disadvantage is that expressing expenditure levels in this way makes for relatively small absolute numbers. This may result in optical delusions of all sorts. It needs to be kept in mind, therefore, that, for example, 1.38 percent of a rich country's GDP is a huge amount of money, and that a decline from 1.38 to 1.09 percent is a decline of no less than 21 percent.

9 Only since 1992 has the OECD presented an indicator that includes public educational subsidies to private households. They range roughly from 0.2 to 0.4 percent of GDP in Germany and the US. In Sweden, they add up to about 1 percent, with a tendency to decline in recent years. For more information see the 2010 edition of *Education at a Glance* (OECD 1992–2010: 186 ff.).

Table 1 Public spending on education, as a percentage of GDP, 1981–2007

	Germany	Sweden	United States
1981	4.6	8.0	4.8
1982	4.6	7.8	4.9
1983	4.4	7.4	4.8
1984	4.1	7.2	4.6
1985	4.1	7.0	4.6
1986	4.1	7.0	4.8
1987	4.0	6.9	4.8
1988	3.9 <sup>a</sup>	6.5	4.8
1989 <sup>a</sup>	3.9	6.5	4.9
1990	4.0	6.5	4.9
1991	4.0	6.5	5.5
1992	3.9	6.7	5.3
1993	4.5	6.7	5.1
1994	4.5	6.6	4.9
1995	4.5	6.6	5.0
1996 <sup>a</sup>	4.5	6.7	5.1
1997	4.5	6.8	5.2
1998	4.4	6.6	4.8
1999	4.3	6.5	4.9
2000	4.3	6.3	4.8
2001	4.3	6.3	5.1
2002	4.4	6.7	5.3
2003	4.4	6.5	5.4
2004	4.3	6.5	5.1
2005	4.2	6.2	4.8
2006	4.1	6.2	5.0
2007	4.0	6.1	5.0

<sup>a</sup> Estimate.

Sources: OECD Education at a Glance; OECD Public Educational Expenditure 1970–1988.

A first inspection of the data on our three countries (Table 1) reveals that public expenditure on education in Sweden has declined sharply over past decades. Although spending is still by far the highest among the three countries, it fell from 8.5 percent of GDP in 1980 to 6.1 percent in 2007, with a strikingly continuous decline of 2 percentage points during the 1980s. Spending in the US has remained fairly constant, fluctuating around 5 percent until 2007. However, two exceptional highs are found in 1991 and 2003, when spending rose to about 5.5 percent. In both cases, the effect seems to be due to low economic growth (1991 and 2001–2003 were years in which the US economy performed poorly) combined with institutional inertia of spending commitments.<sup>10</sup> Germany's spending came down from a relatively high level in the 1970s, gradually decreasing from 4.6 percent in 1980 to 3.9 percent in 1988. After a slight upward trend in 1993 to 4.5 percent, expenditure remained roughly constant before it fell to 4 percent in the last observed year, 2007.

<sup>10</sup> Economic growth rates and public investment spending were negatively correlated in the observed period, ranging from  $r = -.52$  for the US to  $r = -.63$  for Germany.

*Research and development (R&D)*

In its seminal *Frascati Manual*, the OECD (2002: 30, 77) defines as R&D all basic research, applied research and experimental development in the natural and engineering sciences (NSE) and in the social sciences and humanities (SSH). The most common measure of expenditure in these areas is GERD (Gross Domestic Expenditure on Research and Development), which relies on surveys among R&D performers.<sup>11</sup> Our indicator covers government-financed R&D carried out in all national sectors (government, business enterprise, private non-profit, and higher education<sup>12</sup>) in a given year and is considered to be the most accurate way of identifying the government's share in R&D financing (OECD 2002: 138).

Data for our three countries are available from 1981 onwards. Several peculiarities deserve special attention. For Sweden, data are compiled only for every other year since 1981, which leaves us with gaps in the time series. As with educational data, we estimated the missing values by the arithmetical mean between the two closest years. Moreover, Swedish data were underestimated until 2005, mainly because smaller companies (with between 10 and 49 employees) were left out of the surveys. Similarly, US data do not include capital expenditure on R&D and are therefore also underestimated. Unfortunately, better data are not available.<sup>13</sup> Finally, tax incentives granted by governments in support of privately funded R&D may also have significant effects on government revenues, and are indeed increasingly employed by OECD countries. However, neither Germany nor Sweden seem to be providing such incentives, and in the United States tax expenditure in this area is among the lowest in the OECD world (OECD 2009c: 78).

Our data show how public spending on R&D has steadily decreased in Germany since the early 1980s, falling from 1.04 percent of GDP in 1982 to 0.7 percent in 2007 (Table 2). The development in the US from the mid-1980s to the end-1990s largely shows an even steeper downward trend. The increase after 2000 is driven mainly by a rise in spending on defense R&D (OECD 2007: 1). Beginning in 2004 we note a renewed, albeit minor decline. Swedish developments are more difficult to summarize, although public spending on R&D also declined over time. After spending increases throughout the 1980s, growth-sensitive ups and downs in the early 1990s preceded a period of relatively constant expenditure. In recent years, however, spending has fallen to a low of 0.8 percent of GDP, to some extent paralleling the other two countries. As absolute figures are small, and R&D activities institutionally inert, one may expect strong short-term effects of changes in economic growth, with increases producing a decline and decreases producing an increase in spending as a percentage of GDP.

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11 Performers are asked to indicate the source of their funds, which makes it possible to separate public from private funding.

12 Since public spending on R&D in the higher education sector is already included within education spending, the possibility of double-counting deserves particular attention. We discuss this below when introducing our aggregate measure for soft investment.

13 The alternative approach, GBAORD (Government Budget Appropriations or Outlays on R&D), contains too many and too sharp statistical breaks (OECD 2010c).

Table 2 Public spending on research and development, as a percentage of GDP, 1981–2007

	Germany	Sweden	United States
1981	1.01	0.92	1.12
1982	1.04	0.96	1.18
1983	0.99	0.95	1.21
1984	0.97	0.97	1.23
1985	1.01	0.99	1.29
1986	0.98	1.02	1.26
1987	0.97	1.04	1.28
1988	0.95	1.06	1.22
1989	0.95	1.05	1.14
1990	0.90	0.97	1.10
1991	0.88	0.91	1.06
1992	0.85	0.98	1.00
1993	0.85	1.03	0.94
1994	0.82	0.98	0.89
1995	0.83	0.92	0.89
1996	0.84	0.92	0.84
1997	0.80	0.90	0.81
1998	0.79	0.93	0.79
1999	0.77	0.94	0.75
2000	0.77	0.92	0.70
2001	0.77	0.93	0.74
2002	0.79	0.93	0.76
2003	0.79	0.94	0.78
2004	0.76	0.91	0.78
2005	0.71	0.88	0.78
2006	0.70	0.84	0.76
2007	0.70	0.80	0.75

Source: OECD Research and Development Statistics.

### *Active labor market policy*

The data on active labor market policy cover the period from 1985 to 2007 and are found in the OECD Employment Database. They reflect spending on labor market programs included in state budgets or in the accounts of implementing institutions.<sup>14</sup> Active labor market policy is targeted at groups subject to certain handicaps on the labor market and aims at increasing their “employability.” In the narrowest sense, it includes the funding and provision of institutional training and of recruitment incentives, employment support, vocational rehabilitation, direct job creation and, in some cases, job rotation schemes.<sup>15</sup> In addition, we included spending on public employment services, such as counseling and case management, financial assistance with the cost of job search, related services for employers, and general administration costs which, unfortunately, cannot be separated from the costs of passive support programs. Unlike

14 Data come from ministries of labor, from agencies that provide public employment services, and from national statistical offices.

15 For a detailed account see: <[www.oecd.org/dataoecd/38/41/42116566.pdf](http://www.oecd.org/dataoecd/38/41/42116566.pdf)>.

Table 3 Public spending on active labor market policy, as a percentage of GDP, 1985–2007

	Germany	Sweden	United States
1985	0.51	2.07	0.28
1986	0.75	1.96	0.26
1987	0.84	1.83	0.26
1988	0.90	1.73	0.24
1989	0.86	1.51	0.23
1990	0.88	1.64	0.24
1991	1.15	2.25	0.23
1992	1.49	2.80	0.22
1993	1.39	2.78	0.22
1994	1.18	2.82	0.21
1995	1.19	2.18	0.20
1996	1.30	2.17	0.17
1997	1.10	2.12	0.20
1998	1.17	2.46	0.20
1999	1.30	2.22	0.18
2000	1.23	1.75	0.18
2001	1.22	1.66	0.18
2002	1.24	1.58	0.17
2003	1.17	1.25	0.16
2004	1.07	1.22	0.14
2005	0.89	1.29	0.14
2006	0.86	1.36	0.13
2007	0.72	1.12	0.13

Source: OECD.Stats Database on Labour Market Programmes.

“passive” labor market policy, which replaces a worker’s wage in case of unemployment, active labor market policy may, like spending on education, be considered public investment in “human capital” and, perhaps, social equity.

Expenditure on active labor market policy is shown in the data set for the fiscal year in which measures and services are provided, even if money transfers may take place at a later point. In this way, policy choices that affect spending levels become immediately visible. Besides directly provided services and cash transfers, expenditures also include forgone revenue through tax reductions (Eurostat 2010).

The three countries considered in this study have different spending profiles, corresponding to different program priorities (OECD 2010a: Table K). Still, there is a similar trend toward lower spending, although at different levels (Table 3). The most dramatic decline has taken place in Sweden. After a decrease in spending in the late 1980s, expenditure bounced back in the 1990s to reach 2.5 percent of GDP by the end of the decade. Thereafter, however, it declined sharply, to 1.12 percent in 2007, which is the lowest level in the observed period.<sup>16</sup> Data on Germany first show a rise in spending up to 1.49

16 To control for policy demand one may divide ALMP spending as a percentage of GDP by a country’s unemployment rate. This reveals a flat and low spending curve in the US throughout the observed period, whereas German spending had upswings in the late 1980s and late 1990s but eventually returned to the modest levels of the mid-1980s. Sweden’s adjusted spending dropped dramatically in the early 1990s from very high levels and moved closer to the German level.



percent of GDP in 1992, which is followed by continuous decline, with minor ups and downs, to 0.72 in 2007. In the US, spending has always been much lower than in the other two countries. It was comparatively constant for the first half of the observation period, until the late 1990s after which it steadily declined from 0.2 to 0.13 percent of GDP.

### *Family support*

Public spending on family benefits is documented in the OECD Social Expenditure Database (OECD 2010b). Family policy expenditure is defined as financial support that is specifically directed towards families and children. The data are from budgetary allocations of national ministries and are available from 1981 to 2007. There are three types of public spending on families: (1) cash benefits that include family allowances, such as child benefits, income support during periods of parental leave, and childcare expenses; (2) benefits in kind or services, including subsidies to providers of childcare and early education facilities, services for families in need, and youth assistance; and (3) financial support for families through the tax system, for example, via child tax allowances and credits.<sup>17</sup>

Unfortunately, the available time-series data reflect only the first two types of public spending. Data on tax breaks for families exist only for 2001, 2003, 2005, and 2007. The share of family support that is provided in the form of tax breaks is considerable in Germany<sup>18</sup> and the US, but nonexistent in Sweden. Tax breaks, where they are fiscally significant, may be affected by fiscal stress. However, since there are no cross-nationally comparable data on family tax credits, nor generally on the family policy dimension of national tax systems, public spending on family policy over a longer period can be documented only in terms of services and transfers. Another difficulty is posed by the fact that family services are often provided or co-funded by local governments whose spending may not be completely covered by national data. This holds true in particular when local entities receive general block grants from the national state. Nonetheless, the OECD claims that “in Nordic countries (where local government is heavily involved in service delivery) this does not lead to large gaps in measurement of spending” (OECD 2009b: PF1.1). Germany and the US are not explicitly mentioned but might also be affected due to their federal structure.

The development of public spending on family benefits has taken different paths in our three countries (Table 4). While Sweden’s spending level meandered around 4 percent of GDP during the 1980s, it climbed to almost 5 percent in 1992, only to fall sharply to less

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17 For more detailed information, see OECD (2009b).

18 Where in 1996 cash payments under the *Familienlastenausgleich* were converted into tax relief. By 2007, tax breaks for families amounted to 0.9 percent of GDP in Germany, which was roughly the same as in 2001. In comparison, tax breaks in the US fell from 0.69 in 2001 to 0.53 percent of GDP in 2007.

Table 4 Public spending on family support, as a percentage of GDP, 1981–2007

	Germany	Sweden	United States
1981	2.12	4.04	0.71
1982	1.90	3.83	0.65
1983	1.72	3.98	0.66
1984	1.61	3.87	0.63
1985	1.53	4.10	0.61
1986	1.55	4.10	0.44
1987	1.59	4.15	0.44
1988	1.55	4.17	0.44
1989	1.49	4.03	0.44
1990	1.69	4.42	0.47
1991	2.18	4.77	0.58
1992	2.25	4.85	0.59
1993	2.26	4.39	0.60
1994	2.15	4.30	0.60
1995	2.12	3.77	0.61
1996	2.05	3.49	0.56
1997	2.09	3.28	0.42
1998	2.02	3.29	0.75
1999	2.03	3.20	0.73
2000	2.05	2.97	0.73
2001	2.04	3.10	0.76
2002	2.14	3.20	0.78
2003	2.14	3.29	0.73
2004	2.10	3.30	0.68
2005	2.08	3.30	0.64
2006	1.78	3.45	0.65
2007	1.83	3.42	0.65

Source: OECD Social Expenditure Database.

than 3 percent at the end of the century. In 2007, family policy expenditure again rose to 3.42 percent of GDP. In Germany, spending declined in the 1980s from 2 percent to about 1.5 percent, but then returned to roughly 2 percent after unification. Without much variation in the 1990s and early 2000s, expenditure amounted to 1.83 percent of GDP in 2007. For the US, the sum of cash and in-kind benefits never amounted to more than the 1980 level of 0.78 percent in the observed period. Spending levels went down to 0.44 percent in the late 1980s and from then on fluctuated with a peak value of 0.78 percent in 2002, a year of low economic growth. Subsequently, it declined to 0.65 percent in 2007.

Table 5 Soft public investment spending, as a percentage of GDP, 1981–2007

	Germany	Sweden	United States
1981	7.7	13.0	6.6
1982	7.5	12.6	6.7
1983	7.1	12.3	6.7
1984	6.7	12.0	6.5
1985	6.6	12.1	6.5
1986	6.6	12.1	6.5
1987	6.6	12.1	6.5
1988	6.4	11.7	6.5
1989	6.4	11.6	6.4
1990	6.5	11.9	6.5
1991	7.1	12.2	7.1
1992	7.0	12.5	6.9
1993	7.6	12.1	6.6
1994	7.5	11.9	6.4
1995	7.4	11.3	6.5
1996	7.4	11.1	6.5
1997	7.4	11.0	6.4
1998	7.2	10.8	6.4
1999	7.1	10.6	6.4
2000	7.1	10.2	6.2
2001	7.1	10.3	6.6
2002	7.3	10.8	6.8
2003	7.3	10.7	6.9
2004	7.2	10.7	6.6
2005	7.0	10.4	6.2
2006	6.6	10.5	6.4
2007	6.5	10.3	6.4

Sources: OECD Education at a Glance; OECD Public Educational Expenditure 1970–1988; OECD Research and Development Statistics; OECD.Stats Database on Labour Market Programmes.

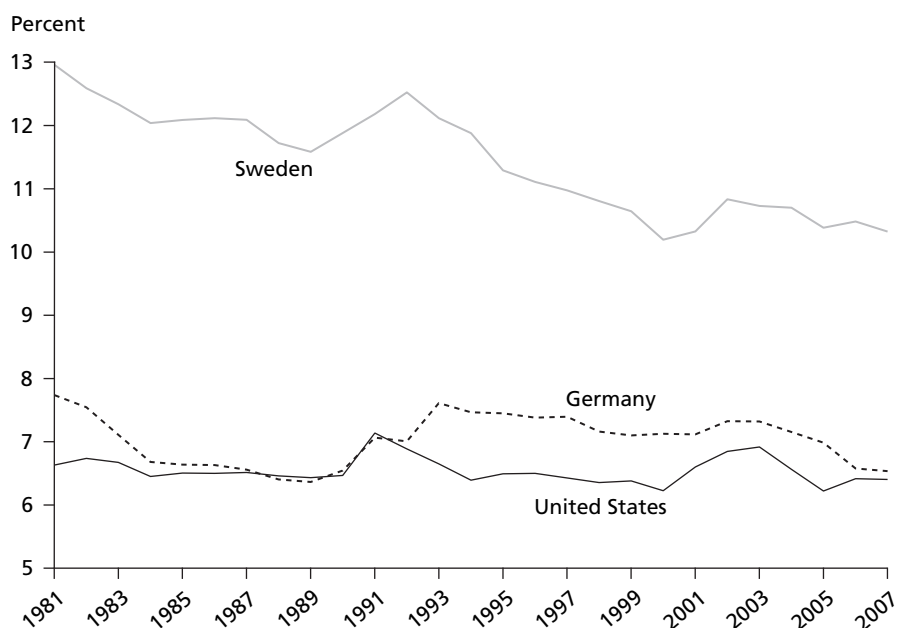
*Soft public investment: Aggregating education, R&D, active labor market policy, and family support*

Our first inspection of the data on our four categories of soft investment suggests a common tendency toward a decline in spending. As it turns out, at least some of the measures of soft investment are highly correlated within countries over time.<sup>19</sup> We take this to indicate that it makes sense in principle to combine the four spending categories into an aggregate indicator of soft public investment.

Aggregating data from different sources may be problematic. In our case, public expenditure on R&D performed in higher education institutions is counted under both R&D and education. We were, however, able to estimate the double count by identifying the higher education content of R&D in GERD. Similarly, government expenditure on pre-

<sup>19</sup> The clearest results come from Sweden, where the four investment variables are correlated at coefficients between .29 (education and R&D) and .54 (R&D and family support). Germany and the US show a more mixed picture, with highly positive but also a few negative correlations.

Figure 1 Soft public investment, three countries, as a percentage of GDP



Sources: OECD Education at a Glance; OECD Public Educational Expenditure 1970–1988; OECD Research and Development Statistics; OECD.Stats Database on Labour Market Programmes.

primary education facilities is included in education as well as family support spending. Although spending devoted to early childhood education is available only from 1997 on, it seems to have been largely constant in terms of GDP, enabling us to estimate the extent of double-counting over the period. Moreover, in the German case it cannot be ruled out that some of the public expenditure on vocational training might be counted in both education and active labor market policy spending.<sup>20</sup> Finally, as already mentioned, spending figures on ALMP are heavily distorted by cyclical changes in unemployment. While we will discuss ALMP spending in the individual country sections, we have for this reason decided not to include it in our aggregate measure of soft investment.

Table 5 shows the three countries' aggregate spending on education, R&D, and family support. In total, our estimated aggregate is on average about 10 percent too high in Sweden and Germany, and about 8 percent in the US. However, since there is no sharp break in any of the series, the distortion in all three countries is roughly the same over time, and therefore has no major effect on general trends (Figure 1). In Sweden, soft public investment declined early in the 1980s and, after a short rebound, again from

20 Personal communication with the German national statistical office and the OECD informs us that there is no way of sorting this out.

Table 6 Hard public investment spending, as a percentage of GDP, 1981–2007

	Germany	Sweden	United States
1981	3.4	5.0	2.3
1982	3.0	4.6	2.2
1983	2.8	4.5	2.1
1984	2.6	4.2	2.2
1985	2.6	3.9	2.3
1986	2.7	3.5	2.3
1987	2.6	3.3	2.4
1988	2.5	3.4	2.3
1989	2.5	3.9	2.3
1990	2.5	3.7	2.4
1991	2.6	3.6	2.5
1992	2.8	3.5	2.4
1993	2.7	3.7	2.3
1994	2.5	4.0	2.3
1995	2.2	3.9	2.3
1996	2.1	3.5	2.4
1997	1.8	3.0	2.4
1998	1.8	3.1	2.4
1999	1.9	3.1	2.4
2000	1.8	2.8	2.5
2001	1.7	2.9	2.5
2002	1.7	3.1	2.6
2003	1.6	3.0	2.5
2004	1.4	3.0	2.4
2005	1.3	3.0	2.4
2006	1.4	3.1	2.4
2007	1.4	3.1	2.4

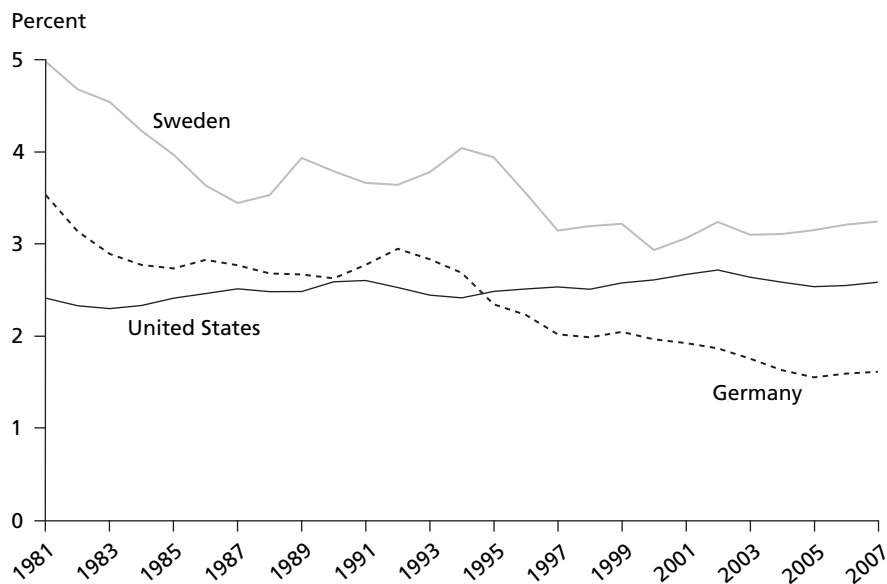
Source: OECD National Accounts.

1993 onwards. Having set out at a level of 13 percent of GDP, aggregate spending decreased to 10.3 percent in 2007. Soft investment in Germany developed in a similar way on a lower level, with some decline in the 1980s, a significant increase after unification and, in the run-up to the crisis, another decline from 7.6 to 6.5 percent of GDP. US spending, as mentioned, was comparatively stable. Except for peaks in 1991 and 2003, which were associated with highs in education spending, US expenditure was by and large constant at around 6.5 percent throughout the period. In summary, soft investment spending in Germany has gradually approximated US levels, with Swedish spending moving continuously closer to the German level.

#### *Excursus: Soft and hard investment*

We will now return briefly to the definition of public investment applied in the bulk of the literature. At first glance one might be inclined to combine our aggregate measure of soft investment with the standard indicator of hard investment, which is Gross Fixed

Figure 2 “Hard” public investment, three countries, as a percentage of GDP



Source: OECD National Accounts.

Capital Formation by General Government (GFCF). However, while GFCF is defined *technically* according to the nature of the assets in question (OECD 2009a: 44), data on soft investment are defined *functionally* with respect to specific policy areas. Combining the two measures would raise highly complex issues of double-counting that cannot be resolved with the statistical sources at hand. Still, by taking both measurements of public investment into account without, however, lumping them together, a more detailed picture of fiscal developments during the past three decades can be attained.

Indeed, what emerges overall is a striking similarity in the development of soft and hard investment. Hard investment decreased in Germany and Sweden, while remaining largely constant in the United States, the country with the lowest level at the beginning of the period (Table 6, Figure 2). The steepest decline took place in Germany where hard investment declined from 3.4 percent of GDP in 1981 to 1.4 percent in 2007. The long-term trend, in the course of which German hard investment fell below the American level, slowed down only temporarily in the years immediately after unification. In Sweden, expenditure on physical infrastructure dropped in the early 1980s from 5 to 3.3 percent, and again in the mid-1990s from 4 to 3 percent of GDP, strongly resembling the trend in soft investment. Still, it remained clearly above American expenditure. Finally, in the United States hard investment spending meandered around an average of 2.4 percent of GDP throughout the period.

## Fiscal stress

By “fiscal stress” we mean fiscal pressures for the consolidation of public finances. In a simplified model, we assume that stress starts with current, persistent, high and, in particular, rising public *deficits*. They result in, or add to, rising public *debt*. At a certain point, governments will face the need either to *raise taxes* or *cut public spending*. We suggest that this applies regardless of a country’s existing level of debt, deficit, spending or taxation, and indeed this is what the fiscal histories of our three countries over almost three decades bear out. Moreover, we expect fiscal pressure on discretionary public spending, including and in particular on public investment, to be the stronger the less a government, faced with high deficits and accumulating debt, is able or willing to raise taxes. As taxation levels in the three countries, while very different, remained by and large unchanged during the period of observation,<sup>21</sup> we find it convenient to define fiscal stress as a combination over time of increases in deficits and debt followed by a decline in overall government spending. Like our dependent variables, we measure all three components relative to GDP (Table 7). Before we proceed we will comment briefly on each of the three measures.

### *Public deficits*

Annual figures for public deficits are highly volatile as they are sensitive to changes in GDP, given the inertia of public spending commitments and the functioning of the welfare state as an “automatic stabilizer” in periods of economic distress. We have therefore chosen to replace annual figures with a three-year moving average. As can be discerned from Table 7, ups and downs are highly correlated between the three countries. Deficits were high at the beginning and low at the end of the 1980s; they increased again in the early 1990s; fell until the end of the decade; and then went through another cycle. In 2007, before the Great Recession, they were declining in each of our countries.<sup>22</sup>

### *Public debt*

Public debt developed differently in the three countries. In Germany, it went up almost continuously until it peaked at 71 percent in 2005. By 2007, however, it had declined by roughly 6 percentage points. Swedish debt behaved erratically by comparison; it first rose to 71 percent in 1984, then declined to 46 percent in 1990, rose again to 84 percent in 1996, and from then on declined almost continuously to 47 percent in the year before the financial crisis. Public debt in the US rose steadily until 1993 (72 percent), then fell to 54 percent in 2001, rising again to 62 percent in 2007.

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21 American taxation hovered around 27 percent of GDP; German taxation remained at roughly 40 percent; and the Swedish tax level was about 10 percentage points above the German one. Between 2000 and 2007, taxation levels declined slightly in all three countries.

22 German and Swedish deficits are correlated at  $r = .66$ , Swedish and American deficits at  $.38$ .

Table 7 Indicators of fiscal stress, as a percentage of GDP, 1981–2007

	Germany			Sweden			United States		
	Deficit	Debt	Expend.	Deficit	Debt	Expend.	Deficit	Debt	Expend.
1981	-3.4	33.6	47.5	-5.7	55.3	62.9	-3.3	40.9	34.7
1982	-3.4	36.5	47.5	-5.5	65.5	65.0	-4.3	45.8	37.0
1983	-2.8	38.2	46.6	-4.9	69.5	64.9	-5.2	48.8	37.1
1984	-2.0	39.0	45.8	-3.9	70.8	62.3	-5.2	50.5	36.2
1985	-1.4	39.5	45.1	-2.3	70.3	63.2	-5.1	55.3	36.9
1986	-1.4	39.6	44.4	-0.2	69.6	60.7	-5.0	58.8	37.4
1987	-1.6	40.9	45.0	2.1	61.9	58.5	-4.5	60.5	37.2
1988	-1.2	41.4	44.6	3.3	55.5	58.0	-3.8	61.2	36.3
1989	-1.3	39.8	43.1	3.3	50.4	60.0	-3.8	61.5	36.2
1990	-1.6	40.4	43.6	2.2	46.3	59.8	-4.2	63.0	37.2
1991	-2.4	37.7	46.1	-1.9	55.0	61.1	-5.1	67.8	38.0
1992	-2.8	40.9	47.3	-6.7	73.4	69.4	-5.3	70.2	38.6
1993	-2.6	46.2	48.3	-9.7	78.2	70.6	-4.9	71.8	38.1
1994	-5.0	46.5	47.9	-9.2	82.5	68.4	-4.0	71.0	37.1
1995	-5.1	55.7	54.8	-6.6	81.1	65.1	-3.1	70.6	37.1
1996	-5.2	58.8	49.3	-4.1	84.4	63.0	-2.2	69.8	36.6
1997	-2.7	60.3	48.3	-1.4	83.0	60.7	-1.0	67.4	35.4
1998	-2.1	62.2	48.1	0.0	82.0	58.8	0.0	64.1	34.6
1999	-0.8	61.5	48.2	1.8	73.2	58.6	0.8	60.4	34.2
2000	-1.0	60.4	45.1	2.0	64.3	55.4	0.5	54.5	33.9
2001	-1.7	59.7	47.5	1.2	62.7	55.2	-1.0	54.4	35.0
2002	-3.5	62.1	48.0	-0.4	60.2	56.4	-3.2	56.8	35.9
2003	-3.8	65.3	48.4	-0.8	59.3	56.5	-4.5	60.1	36.3
2004	-3.7	68.7	47.3	0.4	59.2	55.1	-4.2	61.1	36.0
2005	-2.9	71.1	46.9	1.5	59.9	54.7	-3.3	61.4	36.2
2006	-1.6	69.2	45.3	2.6	52.8	53.6	-2.7	60.9	36.0
2007	-0.7	65.3	43.6	2.9	47.4	51.8	-2.5	61.9	36.8

Notes: *Deficit* is the three-year moving average of annual budgetary balances, calculated as the mean of deficits occurring in  $t-1$ ,  $t$ , and  $t+1$ . *Debt* reflects gross liabilities, and *Expenditure* is defined as total disbursements of general government.

Source: OECD Economic Outlook 87.

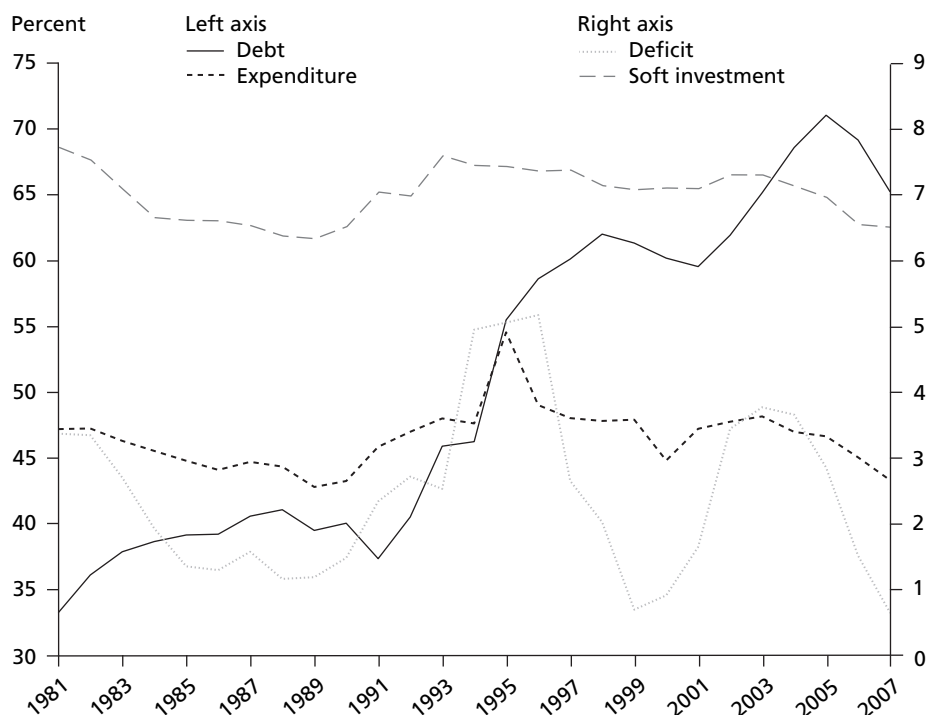
### Public expenditure

In Germany, government spending as a percentage of GDP moved between 43 and 48 percent and then jumped to a peak of above 50 in the mid-1990s.<sup>23</sup> In subsequent years, it remained at about 48 percent until it was gradually reduced after 2003 to below 44 percent, the lowest level since 1989. Swedish public expenditure increased from 63 percent in 1981 to 71 percent in 1993, to be cut in the next one-and-a-half decades to 52 percent, the lowest level in the entire period. Public spending in the United States was much lower than in the other two countries and remained roughly constant at a little above a third of GDP.

23 It is worth mentioning that the jump to peak value in 1995 can be explained mainly by the inclusion of capital transfers resulting from the takeover of the debt of the *Treuhandanstalt* and the housing industry of the former GDR.



Figure 3 Germany: Soft public investment, public deficits, public debt and public expenditure, as a percentage of GDP



Sources: OECD Education at a Glance; OECD Public Educational Expenditure 1970–1988; OECD Research and Development Statistics; OECD.Stats Database on Labour Market Programmes; OECD Economic Outlook Database 87.

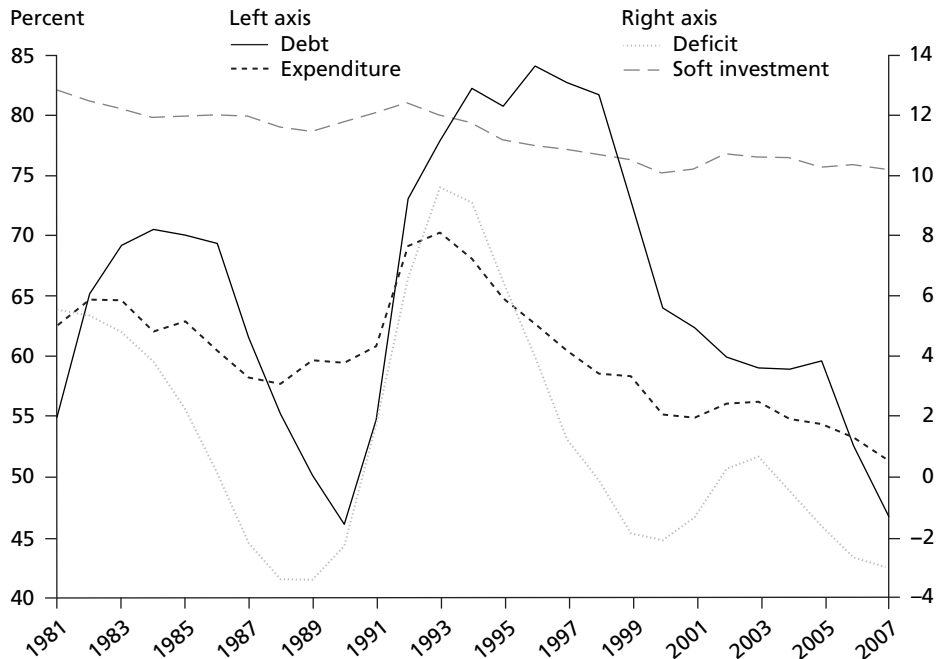
## 5 Results

We will now present our results, first for each country separately and then, in the concluding section, for the three countries in comparison.

### Germany

In the 1980s, soft investment declined along with deficits and overall spending, while debt remained basically constant at roughly 40 percent (Figure 3). After unification, soft investment increased sharply, together with public deficits, spending, and debt. From the mid-1990s onwards, investment was cut back while deficits, spending, and debt were reduced, in part significantly. Subsequently, rising deficits caused an increase in overall debt and allowed for a slight rise in public expenditure. Then, the Schröder reforms and the austerity measures of the Grand Coalition (after 2005) cut the deficit by cutting spending and, on the eve of the financial crisis, managed to lower the national debt by roughly 6 percentage points. During the same period, soft public investment, by our aggregate measure, declined from 7.3 to 6.5 percent of GDP, that is, by about 10 percent.

Figure 4 Sweden: Soft public investment, public deficits, public debt and public expenditure, as a percentage of GDP



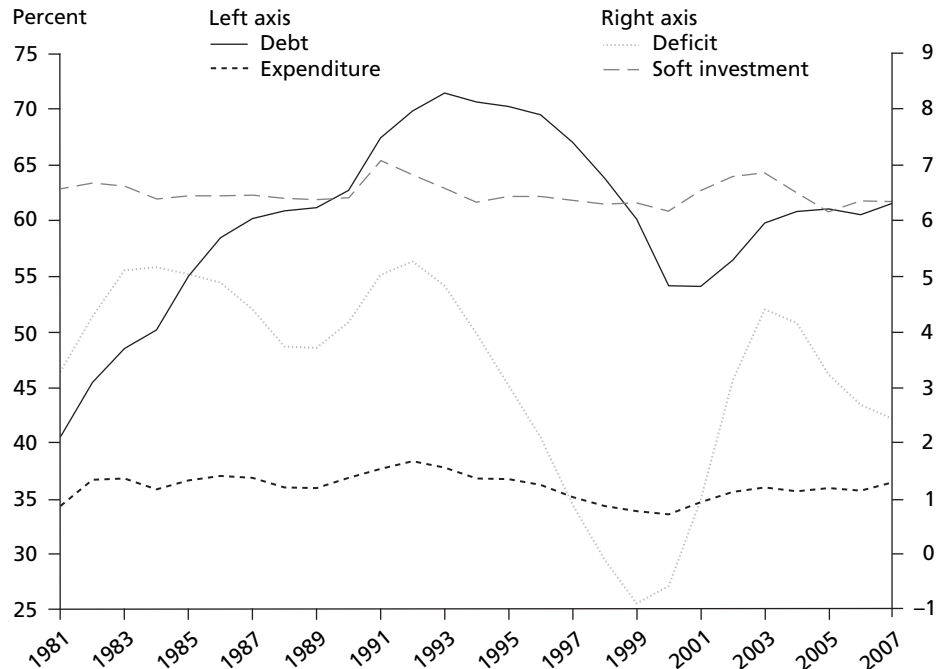
Sources: OECD Education at a Glance; OECD Public Educational Expenditure 1970–1988; OECD Research and Development Statistics; OECD.Stats Database on Labour Market Programmes; OECD Economic Outlook Database 87.

As already mentioned, spending on active labor market policy developed the same way; in fact, it was almost cut in half between 1999 and 2007 (Table 3). This was clearly not driven by a decline in policy demand, as the number of unemployed increased from about 3 to 4.5 million between 1999 and 2005. Spending on family support was also cut as part of the consolidation effort and declined faster in the years before the crisis than the population of children under 15, although arguably the decline of the latter should have called forth an increase in policy effort.

## Sweden

Soft public investment declined steadily and dramatically during the entire period (Figure 4). There were two phases of budget consolidation and debt reduction, from 1981 to 1989 and from 1995 to 2007. Especially in the latter, overall public spending was sharply curtailed. In the course of drastic spending cuts and a return to the Swedish tradition of running a budget surplus, soft investment spending fell from 12.5 percent of GDP in 1992 to 10.3 percent in 2007, which amounts to a loss of no less than 18 percent. Simultaneously, active labor market policy was cut in half between 1998 (2.46 percent) and 2007 (1.12 percent), remarkably in spite of the fact that, from the early 2000s on, unemployment increased steadily from 190,000 to 300,000 and seems to have stabilized

Figure 5 United States: Soft public investment, public deficits, public debt and public expenditure, as a percentage of GDP



Sources: OECD Education at a Glance; OECD Public Educational Expenditure 1970–1988; OECD Research and Development Statistics; OECD.Stats Database on Labour Market Programmes; OECD Economic Outlook Database 87.

at that level. Spending on passive labor market policy followed the same pattern. Family support was also severely cut during the 1990s while the number of children and the birth rate, perhaps in part as a result, fell slightly.

## United States

Soft public investment as defined in this study was low throughout the period and moved between 6 and 7 percent of GDP (Figure 5). Over time, there were two episodes in which soft investment increased slightly, culminating in 1991 (7.1 percent) and 2003 (6.9 percent). They were associated with rising deficits and growing debt. There were also two periods of decline, from 1991 to 2000 (6.2 percent) and from 2003 to 2007 (6.4 percent); these were years of budget consolidation, in particular the late 1990s when the US budget showed a surplus. Spending on active labor market policy, small as it has always been in the United States, declined steadily between 1997 and 2007, although the number of unemployed went up sharply between 2000 and 2003.

## 6 Democratic state capacity in decline

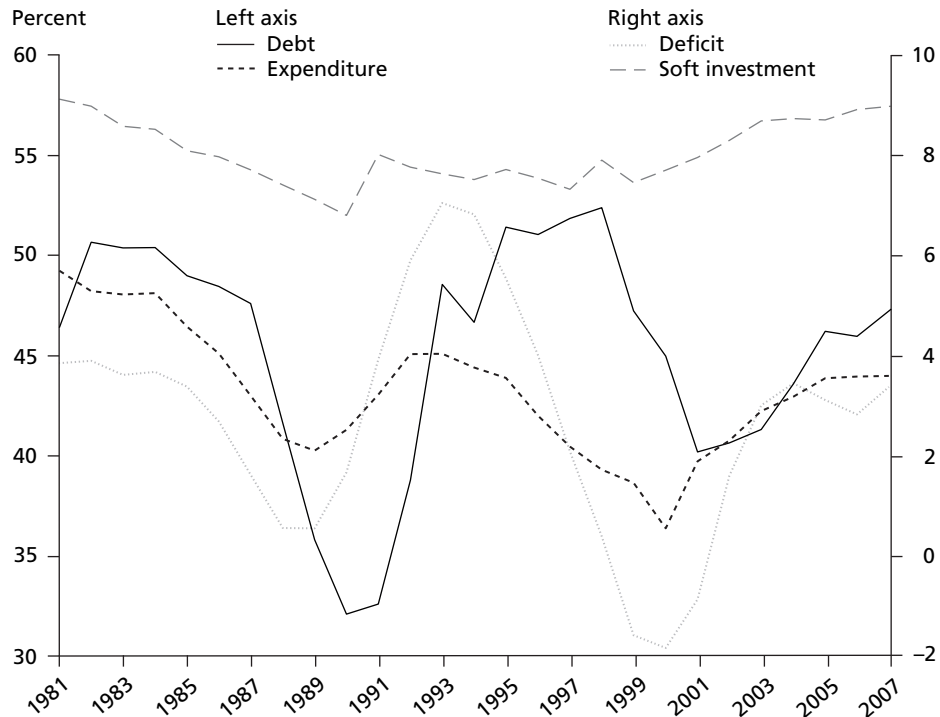
Public deficits generate accumulating public debt, which in turn gives rise to pressures for fiscal consolidation. In the absence of an increase in taxation, consolidation must be achieved by cuts in expenditure. Inevitably, these will affect discretionary more than mandatory spending. Since public investment is discretionary, it is highly likely to be cut if public expenditure is cut. Apparently, this applies not just to traditional public investment in physical infrastructure, but also to what we have called “soft” investment, even though its magnitude may seem small in absolute terms. If governments want or need to pursue fiscal consolidation, protecting or, as arguably needed, increasing soft investment appears to be impossible without higher taxes.

Obviously, the mechanism we have identified is not a logically necessary one. As we have found it at work in three otherwise very different countries, however, we have become convinced that it does represent a powerful tendency inherent in mature democratic polities and their fiscal regimes. It certainly need not be the case that fiscal consolidation without higher taxes depresses future-oriented public investment. To show that it could be otherwise one requires no more, but also no less, than one or two examples of countries where a decline in overall public spending went together with constant or even increasing soft investment. Once such cases have been discovered it will be a worthwhile theoretical exercise to identify the conditions that have made them different.

Our conclusion that fiscal consolidation and stable or increasing soft public investment are unlikely to be compatible is confirmed indirectly by the recent fiscal history of another rich democracy, the United Kingdom. The United Kingdom seems to be one of the very few major countries in which soft investment increased rather than declined in the years before 2008, more precisely after “New Labour” took office in 1997 (Figure 6). However, this coincided with growing public expenditure funded by increasing deficits and rising public debt. Between 1981 and 1989, by comparison, public expenditure in the UK was cut, in an effort to eliminate deficits and reduce public indebtedness without raising taxes, and as we would expect soft public investment declined by more than a fifth.

If, as we do, one considers the decade before 2008 a trial run for a new wave of even more incisive consolidation of public finances in rich democracies, one cannot but arrive at dire predictions concerning the future capacities of governments to assist their societies in coping with changed conditions of prosperity and equality. If governments cannot protect public investment against fiscal pressures, including in particular what we call soft investment, their impact on the structure of modern societies must decline. In response to what appears to be a further step in the gradual demise of the governing capacities of democratic states, citizens may continue to lose interest in democratic politics. Instead of contributing to the provision of collective goods, they will in growing numbers turn to private markets to supply themselves with what they need to survive and prosper in a changing economic opportunity structure. Not everybody will, however, be able to pay the price for private as opposed to public enhancement of his

Figure 6 United Kingdom: Soft public investment, public deficits, public debt and public expenditure, as a percentage of GDP



Sources: OECD Education at a Glance; OECD Public Educational Expenditure 1970–1988; OECD Research and Development Statistics; OECD.Stats Database on Labour Market Programmes; OECD Economic Outlook Database 87.

or her marketability. Not only reduced welfare state spending, but also lower public investment is thus bound to have distributional consequences. For example, declining or stagnant family support will leave unchanged the initial distribution of life chances for the next generation, as conditioned by the social status of families. Also, declining investment in public education will force individuals from disadvantaged social groups – who will be increasingly numerous – to forgo opportunities for social advancement, or incur significant amounts of private debt,<sup>24</sup> provided they have access to credit in the first place. Here as elsewhere, as democratic states suffer a loss of capacity to intervene in the social distribution of life chances, they may with good reason be considered less and less democratic.

24 As a result of reduced public support for education, together with rising costs of tuition in the private college market, the total debt of American households on college loans now equals total American debt on credit cards (Lewin 2011).

## 7 Conclusions

Fiscal stress and pressures for fiscal consolidation are bound to affect discretionary more than mandatory spending. Although public investment comprises only part of a state's discretionary spending, we have found that it is not at all protected from the constraints imposed by fiscal stress on public policy. Importantly, as we have seen, this holds not just for public investment in the traditional sense, which is spending on the physical infrastructure, but also for spending on education, families, R&D, and active labor market policy – which we have called “soft investment” and which is, for good reasons, seen as the most future-oriented part of public spending. Moreover, it appears that, unlike what one might have expected, there seems to be no substitution of soft for hard investment, as apparently the two tend to be equally and simultaneously affected by fiscal stress and political austerity.

Remarkably, public investment seems to be declining under fiscal stress in otherwise very different countries with very different fiscal traditions and levels of public spending – in the present case represented by a triad including the ultimate Anglo-American “free market” economy, the paradigmatic example of Scandinavian social democracy, and the economically and politically most important continental European country. That our findings for the three countries are essentially the same makes them all the more alarming. In fact, comparison between the three countries suggests that public investment may be likely to decline most where original spending levels were high, and least where spending was already initially so low that it could not easily be lowered further. Thought through to the end, our results might raise the question of convergence on the lowest possible level of collective investment.

Traditional – “hard” – public investment may be subject to saturation in advanced industrial countries. Clearly the same cannot be said of soft investment. Research and development is today a major source of economic progress and prosperity; education serves to enable a country's citizens to participate fully in the social life of an evolving “knowledge society,” and compete successfully in a global economy; active labor market policy assists the weakest members of society to build up and maintain occupational competences and thereby helps equalize social and economic life-chances; and family policies are supposed to counter the gaping demographic deficit typical of contemporary rich societies. Moreover, education and labor market policy in particular are of special significance in countries with high levels of immigration, like the three covered by this paper. Rather than a decline in soft investment spending, one would therefore have had good reasons to expect an increase, in response to rising needs for public intervention and political problem-solving, and actually this is what much of current political rhetoric, at least in Europe, does not tire of demanding and, indeed, promising. As we have shown, in fact the opposite is happening as fiscal stress gets worse, and

not just in the United States but also in a country such as Sweden, the archetype of the “Scandinavian model.”<sup>25</sup>

The results of our analysis bear out our claim that comparing trajectories over time is at least as productive in social and political science as are cross-sectional snapshots. A cross-sectional approach would have revealed that in 2007 Sweden spent a lot more on soft investment than Germany, and Germany spent more than the US. While this is undoubtedly the case, for assessing what the three spending levels really mean, and in what direction the three countries may be going, it is essential to understand that in all three of them soft investment has declined, especially in recent years when public spending was cut after a period of public sector deficits and an accompanying increase in public debt. As social and political change normally proceeds gradually, through trends rather than events, a longitudinal as opposed to a cross-sectional perspective suggests that we should search for underlying, lasting causes of the developments we have found, other than one-time policy decisions, changes in government, or momentary conjunctural circumstances. It also suggests that for a country such as Sweden, where soft public investment has for more than a decade now been on a descent toward “normalization” on a continental European, perhaps a German level, defending its traditional social-democratic identity would require nothing short of a major political-economic turnaround, even though it may for another decade exhibit significantly higher public spending than, for example, Germany – which in turn will, in the absence of major political change, continue to descend toward the American level.

Another issue in regard to which the comparative analysis of trends over time yields important insights is taxation. Cross-sectional observation would suggest that the United States could easily solve its fiscal problems by raising its taxes by a few percentage points, to a level that would still remain far short even of the German one. The fact, however, that in all three countries the level of taxation declined in the 2000s, including in the traditional high-tax economy and society of Sweden, warns against analytical and political voluntarism. Obviously, taxation levels are sticky for whatever political or institutional reasons, and if they have changed in recent years, the change was downward rather than upward. Why this was so must remain a matter of debate that can certainly not be resolved here. Apparently, resistance to tax increases has been widespread in rich industrialized countries since the 1970s, when the end of the postwar growth period registered with citizens, and “bracket creep” could no longer be relied upon to provide states with a rising share in their societies’ economic resources, enabling them to discharge their growing functions in ever more complex and demanding societies. Since then, deficits were for some time relied upon by governments to cover endemic gaps

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25 This assumes that lower spending in relation to a country’s GDP means both lower effort and lower effect. As to the former, we believe that, just like firms with high turnover, countries with a large economy require more investment, so shares are a better measure of investment effort than absolutes. Concerning the latter, we find it unlikely that expenditure cuts will, as a rule, result in efficiency gains balancing the loss of funding.

between revenue and spending, until this was no longer feasible. Subsequently, consolidation was sought, not by tax increases but by spending cuts, and this was the case not just in the US but also in social-democratic Sweden and centrist continental European Germany.

None of this bodes well for the coming years when the additional debt accumulated in the course of the financial crisis will have to be cut back under the watchful eyes of the very “financial markets” that caused the global recession in the first place and thereby forced governments to sacrifice the gains of a decade of fiscal consolidation. Further reductions in public spending have already been announced in all major industrial countries, along the pattern of the 1990s and 2000s, only on a much larger scale. On the basis of our findings, it seems very hard to believe that this should not include a continuation of the cuts in public investment that we have observed in the past two-and-a-half decades. The question this will raise – and, we expect, louder than ever before – is whether democratic states under capitalism, with their manifold public responsibilities on the one hand and the severe restrictions on the other under which they must raise the means needed to discharge them, will still be able to do what is required for the future viability of their increasingly unstable, fragile, and disorganized societies. Will what appears to be urgently needed also be possible? Will, in the coming years, the politically possible systematically fall short of the socially necessary? Will the political capacity of modern states be up to their increasing number of tasks, or will it atrophy under ever tightening conditions of fiscal austerity? There is as yet little to see to make us optimistic about the answer.



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