Ludger Schuknecht

Vito Tanzi

Reforming Public Spending:

Great Gain, Little Pain

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Vito Tanzi and Ludger Schuknecht's recent work includes *Public Spending in the 20th Century: A Global Perspective* (Cambridge, 2000).

CONTENTS

Introduction

Public spending in most industrialised countries grew remarkably in the period up to the 1980s, especially on their welfare states. However, from the late 1970s, a growing scepticism emerged about the benefits of an ever increasing role for the state; and the evidence, both theoretical and empirical, increasingly suggested that a much smaller level of public spending could promote basic social objectives more effectively.

This study considers how several major countries reduced public spending over two decades. From an average that had peaked at almost 52 per cent of GDP over the past 20 years, it fell by around 7 per cent of GDP to a figure below the 1982 ratio. It also considers the differences across countries and the pattern of the reforms. These took place in two main waves, mostly in difficult economic times - the early to mid-1980s and the early to mid-1990s.

It then discusses the experiences, both social and economic, of countries that reform and some of the conclusions may surprise contemporary western electorates and their politicians. For instance, on social policy, the evidence does not suggest a picture of undue cuts to public education or investment. Rather, most reductions are in transfers, subsidies and interest spending. On economic policy, the detailed picture is of little suffering by countries which take on ambitious expenditure reform either in a macroeconomic sense or in terms of socio-economic indicators. The evidence is of improvements in fiscal indicators with deficit and debt reductions and some room for tax cuts as well. Countries that reform also experienced a recovery in trend growth and employment. Income distribution was affected but mitigated by faster growth and better targeting of public spending. Though the pattern of change varies with the individual circumstances of each country, the early and ambitious reformers have already benefited most from them.

The study concludes with a clear message for reform. Experience shows that economically and socially the rewards are substantial. The evidence is that public spending on desirable goals like education and investment does not have to suffer.

I

Modern Government's Changing Role

Public spending as a proportion of GDP grew rapidly from 1870 to the mid- 1990s in industrialised countries. This growth, the subject of our study *Public Spending in the 20th Century: A Global Perspective* (Cambridge University Press, 2000), was at a fast pace during World War One and again after the 1960s when many countries expanded their welfare states. That study aimed to assess its productivity against a number of different, mainly socio-economic, measures by dividing the countries into small, medium and large government countries according to the levels reached in recent years.

The values of the socio-economic indicators for each of these groups suggested a conclusion somewhat different from prevailing assumptions: from a certain point better indicators did not result from larger levels of public spending. On the contrary, for a majority of these indicators, lower public spending seemed to be associated with better or more desirable results. Public spending pitched at a level somewhere between 30 and 35 per cent of GDP was likely to provide the government of a country with sufficient resources to support all the activities that genuinely merit public support. The study concluded that in future years the policy-makers of the industrialized countries would come to share this conclusion and would initiate programmes that, over a period of time (perhaps a generation), would bring public spending down to that range in spite of pressures from fiscally unfriendly demographic changes.[1]

"Big" government was propagated at a time when the industrialized countries and the world economy, of which they formed part, were not well-integrated and markets suffered from many inefficiencies. In that period (largely the 1950s and first half of the 1960s) economists developed economic concepts – public goods, externalities, cost-benefit analysis, merit goods – that gave governments justifications for intervention. The view that markets were inefficient and needed to be supplemented significantly by public intervention became popular and gave politicians the incentive and the excuse to expand the role of the state. At that time the analysis of public decision-making (public choice) had not yet developed as a serious field of study. In some countries the expansion of the public sector was considerable. In others it was more limited. But in all countries public spending went up as a share of GDP. In a number of countries this share exceeded 50 per cent, especially when the programmes created universal entitlements for the countries' citizens.

Now, half a century later, the situation has changed. First of all markets have become more sophisticated than they were in the 1950s. Second, countries are much less autarkic than they used to be. Therefore goods and services that cannot be provided

[1] This section draws from Tanzi (2004)

efficiently by the domestic market can be bought from other countries more easily than in the past. Policy-makers have become more sensitized to the fact that high levels of public spending create inefficiencies on the tax side – because they require higher tax rates – and on the expenditure side – because they require large bureaucracies, and because, from the individual citizen's point of view, government services often have a zero (or at least a very low) price, thus stimulating greater demand for them. Finally, high public spending may lead to macroeconomic difficulties when it is partly financed by fiscal deficits.

It is now generally accepted in the economics profession that while the state should correct shortcomings of the market where appropriate and feasible, it should not replace the market. Therefore, a more developed market should require less government spending. It has also become more obvious to economists that when the government enters a market by establishing, de facto, a government monopoly in a particular activity, it prevents or makes it more difficult for the market to develop fully in that activity. This has happened in many countries in areas such as pensions, education, health, infrastructures, energy, transportation and some other services. In many of these areas, experiments in various countries have indicated that, given the opportunity (and with some efficient regulatory guidance by the public sector), the private market can provide the necessary services more efficiently than the government. When this happens, the government has the option of providing targeted assistance to those who may be too poor to buy from the private sector services such as health and education. Available evidence indicates that countries that have lower levels of public expenditure as shares of GDP do a better job at targeting public transfers toward those at the bottom of the income distribution.[2]

Governments, therefore, the evidence suggests, can be much leaner and yet equally effective in attaining their basic objectives provided they protect property rights and the rule of law, ensure essential public goods (including infrastructure and basic schooling) and provide basic social safety nets. And there are forces at work—domestic and global economic and political developments and pressures, for greater knowledge and transparency—that will help set this process into motion.

This paper will show that the trend that we have predicted, towards lower levels of public spending, may actually be happening. Over the past two decades several countries have been able to reduce public spending from its highest level by remarkable amounts. Furthermore, these countries did not seem to have suffered from these large reductions either in a macroeconomic sense, or in terms of lower values for socio-economic indicators.

This is a broad-brush paper which attempts to identify trends that have been largely missed by economists: much more work will be necessary to give full backing to its conclusions. We hope that such work will follow.

[2] See OECD, Income Distribution in OECD Countries (Paris: 1995).

II

Public Spending Since the 1980s: The Changing Picture

This section considers how the share of GDP taken by public spending in 22 industrialized countries developed over the past two decades. It argues that the lessons, so far not extracted, are broadly in the direction predicted by us in *Public Spending in the 20th Century*. However, there are still great differences in trends among groups of countries within the sample considered.

Beginning in 1982, total public spending as a share of GDP in that year averaged 46.5 per cent for the whole sample of 22 countries, and 47.2 per cent for the countries of the euro zone. The level had grown significantly since 1960 in practically all industrialized countries. There were, however, great differences around this average, with Japan and Switzerland spending less than 33 per cent of GDP while Belgium and Sweden spent more than 60 per cent of GDP. Other countries spending less than 40 per cent of GDP were Australia, Greece, Spain and the United States. Other countries spending more than 55 per cent of GDP were Denmark, the Netherlands and New Zealand (See Table 1).

In the latest years for which data are available – 2002 or the year closest to 2002 – the average level of public spending fell marginally, from 46.5 per cent of GDP in 1982 to 45.0 per cent of GDP in 2002, for all the countries, and from 47.2 per cent of GDP to 46.7 per cent of GDP, for the countries of the euro area. Though such a small reduction gives the impression that little happened over the two decades, that is not the case. Major changes occurred within these two decades, some of the most important of which are now considered.

First is the *significant reduction in the deviations of the public expenditure ratios* around the average. The countries are becoming more similar in this respect. All the countries that had high levels of public spending in 1982 reduced their spending over the next 20 years. Belgium, Ireland, the Netherlands, New Zealand and Sweden reduced public spending by substantial amounts. These had been the leaders in public spending in 1982. Over the same period, several of the previously low spenders, such as Greece, Japan, Portugal and Spain, increased their spending levels. Between 1982 and 2002, the variation in the ratios of public spending to GDP across the 22 industrialized countries fell. A prominent measure of this, the standard deviation, declined from 9.2 to 7.1.

Second and more important is the change which cannot be seen from a comparison of the 2002 and 1982 data. The behaviour of public spending in the two decades since 1982 has differed from that of the preceding two. During the earlier period public spending as a share of GDP increased continually and consistently in practically all the countries in the sample. Subsequently, in most countries, public spending reached a peak after 1982 but before 2002. This peak in most countries was reached by 1996. By this later year public spending had started falling in most countries, reversing the trend of previous decades.

Table 1

Total expenditure: 1982, year of maximum spending ratio, 2002

Percent of GDP

	1982 or nearest	Maximum public expenditure ratio		2002 or nearest	Change Maximum-2002
	(1)	(2)		(3)	(5)
Australia	38.1	40.2	(1985)	35.6	-4.6
Austria	49.0	57.3	(1995)	51.3	-5.9
Belgium	60.8	61.0	(1983)	50.5	-10.5
Canada	46.5	52.8	(1992)	41.4	-11.4
Denmark	57.8	60.7	(1994)	55.8	-4.9
Finland	41.3	60.4	(1993)	50.1	-10.3
France	49.8	55.5	(1996)	53.6	-1.9
Germany	48.1	50.3	(1996)	48.5	-1.8
Greece	35.4	51.0	(1995)	46.8	-4.2
Ireland	49.8	49.8	(1982)	33.5	-16.4
Italy	48.3	57.1	(1993)	48.0	-9.1
Japan	32.9	40.0	(1998)	39.8	-0.2
Luxembourg	49.5	49.5	(1982)	44.3	-5.2
Netherlands	58.6	58.7	(1983)	47.5	-11.2
New Zealand	56.5	56.5	(1985)	41.6	-14.9
Norway	45.6	54.1	(1994)	47.5	-6.6
Portugal	40.0	46.3	(2001)	46.0	-0.3
Spain	35.9	47.6	(1993)	39.9	-7.7
Sweden	64.3	68.0	(1993)	58.3	-9.7
Switzerland	32.8	35.7	(1998)	34.3	-1.4
United Kingdom	44.8	45.4	(1984)	41.1	-4.3
United States	36.2	37.2	(1992)	34.1	-3.1
Average	46.5	51.6		45.0	-6.6
Euro zone	47.2	53.7		46.7	-7.0
Ambitous reformers, early	56.4	56.5		43.3	-13.2
Ambitious reformers, late	47.1	56.7		48.1	-8.6
Timid reformers, early	44.1	45.0		40.3	-4.7
Timid reformers, late	45.5	49.4		45.7	-3.7
Non reformers	36.1	45.8		44.2	-1.6
Standard deviation	9.2	8.4		7.1	

Source: EU Commission, AMECO

To identify the breaks in countries' public spending trends, the specific years when public spending reached a maximum for each country must be identified. These maxima can then be compared with the values reached in 2002 to verify whether a change in trend has actually occurred. Column (2) in Table 1 shows the highest ratios reached by public spending in the countries in the sample. It also shows the year when those maxima were reached. It is evident that, *in the 1982-2002 period, public spending followed an inverted U-shaped curve*. This means that in the majority of countries, public spending first rose and then fell. However, the year in which the maximum was reached varied from country to country.

Comparing these maxima with the 2002 data, a *change in the behaviour of public spending* is evident. For many countries, the 2002 figures were considerably lower than the maximum levels reached in previous years. For the whole group of countries, the 2002 average level of public spending was a remarkable 6.6 percent of GDP lower than the maximum reached in earlier years. The maximum level was not, however, reached in all countries at the same time. For the euro zone the average fall in public spending was larger, about 7 per cent of GDP. In these countries public spending that, for the years when a maximum had been achieved, had averaged 53.7 per cent of GDP, fell to 46.7 per cent of GDP. This sharp fall suggests that a significant change in the trend of public spending in industrialized countries may have started. Only time will tell whether this is a permanent trend.

Passing over the initial year, 1982, and focusing on the changes that have occurred since peak levels were reached, six countries reduced public spending (G) by more than 10 per cent of GDP. Classifying them in the order of the size of the reduction, the countries are:

Country	Change in (G)/GDP	Year Peak Level Reached
Ireland	-16.4	1982
New Zealand	-14.9	1985
Canada	-11.4	1992
Netherlands	-11.2	1983
Belgium	-10.5	1983
Finland	-10.3	1993

The remarkable achievement of these countries is not only the size of the reduction from the peak levels but the fact that their 2002 public spending levels were in all cases below, in some cases well below, the 1982 levels. *In some of these countries the role of the state, as measured by the share of public spending into GDP, was changing in a major way* moving toward the level we predicted some years ago (Tanzi and Schuknecht, 2000).

Six other countries cut their public spending by between 5 and 10 per cent of GDP from the peak level. In their order of reduction they were:

Country	Change in (G)/GDP	Year Peak Level Reached
Sweden	-9.7	1993
Italy	-9.1	1993
Spain	-7.7	1993
Norway	-6.6	1994
Austria	-5.9	1995
Luxembourg	-5.2	1982

While the achievements of this group could also be considered significant, it was less so than in the previous group and not only because of the size of the reduction. With the exception of Sweden and Luxembourg, which reduced spending from the peak level and from the 1982 level, the other countries in 2002 had expenditure levels that were either equal to, or higher than in, 1982. Sweden's 2002 spending level was 6.0 per cent of GDP lower than its 1982 level, while Luxembourg's 2001 spending level was 5.2 per cent of GDP lower than 1982. On the other hand, Spain's level was 4.1 per cent higher than in 1982 while in Italy it was approximately the same. In Italy the combination of a high public debt with a high rate of inflation had pushed the expenditure level sharply upward in 1993. Thus the fall in inflation, after Italy joined EMU, reduced its nominal interest payments and thus the level of public spending. However, primary spending was affected much less.

Categorisation of countries by reform effort and timing

Expenditure reductions (and more specifically primary expenditure reductions) that follow the year of maximum spending have been defined as expenditure reform.[3] As to the timing of reforms, it is possible to distinguish two groups of countries, the "early" and "late" reformers. The first, the "early reformers", consists of those countries which reached the maximum spending level by the early to mid-1980s, starting the process of expenditure reduction at that time. This group includes Ireland, New Zealand, the Netherlands, Belgium and Luxembourg, and we could add Australia and United Kingdom. The second, the " late reformers" group includes countries that reached the maximum expenditure level in the early to mid-1990s and that succeeded, by 2002, in reducing the share of public spending to GDP. This group includes Canada, Finland and Sweden. The "late reformers", Austria, Norway, Spain, Denmark, France, Germany, Italy, Switzerland and the United States, also experienced their maximum spending ratio in that period.

Among both early and late reformers another distinction, reflecting the intensity of the reform efforts, can be seen. A number of countries sharply reduced the level of public spending. Others reduced the level by much less. If a dividing line of five per

[3] If we were interested primarily in short term discretionary reform efforts, it would be appropriate to look at cyclically adjusted expenditure ratios. However, when looking at medium to long term trends (as is intended here) this distinction is less relevant. Moreover, such data is of rather low quality and is subject to considerable measurement problems and errors.

cent of GDP reduction is used to classify the countries, those which exceeded five per cent of GDP reduction could be called *ambitious* reformers while the others could be called *timid* reformers. However, this distinction suffers from two shortcomings. First, it may be more difficult for a country that starts with a low expenditure level to cut five percent of GDP from public spending than for a country that starts with a high level. This is the case for Australia, Switzerland and the United States. These countries did not have high levels of public spending so there was less to reduce. Second, a country that starts with a high ratio of public debt to GDP and with a high rate of inflation may be able to reduce public spending significantly simply if its inflation rate falls, thus pushing down nominal interest rates and interest payments, as was the case for Italy and Greece and to a lesser extent for some other countries.

Bearing in mind these two caveats and choosing a threshold between timid and ambitious reforms, of a 5 per cent reduction in primary spending (which is public spending excluding interest on public debt), the picture which emerges is of significant reform efforts in a large number of countries. The *early and ambitious* reformers include Belgium, Ireland, the Netherlands and New Zealand (see the categorization table below), four countries which reduced public spending by a remarkable 13.2 per cent of GDP from the peak level to the 2002 level. The *late and ambitious* reformers include Austria, Canada, Finland, Norway, Spain and Sweden. These six countries reduced their average public spending from a maximum of 56.7 per cent of GDP to 48.0 of GDP in 2002, or by 8.7 per cent of GDP. Especially large were the reductions in Canada, Finland and Sweden, which averaged 10.5 percent of GDP. These ambitious reformers show that there is life after public spending reductions, having been among the best economic performers in recent years. The fear, that cuts in spending bring economic slowdown, has not materialized and we will come back to this issue in more detail below.

Categories	**Countries**
Ambitious and early reformers	Belgium, Ireland, Netherlands, New Zealand
Ambitious and late reformers	Austria, Canada, Finland, Norway, Spain, Sweden
"Timid" and early reformers	Australia, Luxembourg, United Kingdom
"Timid" and late reformers	Denmark, France, Germany, Italy, Switzerland, United States
Non reformers	Greece, Japan, Portugal

The countries outside this group of ambitious reformers include the genuinely "timid" (France, Germany, Italy, Denmark and to a lesser extent Luxembourg) and some which, having started with low levels of public spending, had less need to cut spending (Australia, Switzerland and the United States).[4] Australia was in many ways a major reformer but its reforms did not have as great an impact on public

[4] All ambitious reformers also report primary spending ratio reductions above 5 per cent of GDP, all "timid" reformers reduced primary expenditure ratios by less than 5 per cent of GDP.

spending because public spending had never been too high. The United States could actually be in a category of its own because, for the whole period, it remained a relatively low spending country and, over the period, reduction in defense spending was a major factor in compensating for increases in other areas. Switzerland reported continued low public spending but could nevertheless be called a timid reformer. Finally, the United Kingdom reformed in many areas but early progress with public expenditure reduction was to a significant extent reversed in later years. Nevertheless, for simplicity we refer to all these countries as "timid" (in the strict numeric sense of the term) and distinguish "late" and "early" timid reformers.

Finally, there was a small group of countries where primary expenditure peaked in 2002. This group is referred to as non-reformers and include rather diverse countries, Greece, Portugal and Japan. It should be noted that in earlier years Greece and Japan had been low spenders.

Further evidence on reform experiences
An examination of the circumstances of these country groups suggests a number of interesting findings. First, *most countries that reduced public spending started their reform programmes in a downturn.* Average growth during the maximum spending period averaged less than one per cent per year and, in the first year of spending reduction, it remained slightly below trend on average.[5] This contrasts with the frequently held view by academic economists that the "optimal" timing of reform is in a boom when reforms associated with spending reductions do not *bear the risk of making a bad economic environment worse. This is naïve* because during good times policy-makers do not see the need for reform.

Second, the decline in *expenditure between the peak year and 2002 was large in many cases* (Table 1). This contradicts the pessimistic view - influenced by the experience of the largest countries of the euro zone though challenged by that of the ambitious reformers. - that political economy constraints make ambitious reforms virtually impossible.

Third, in several cases *reforms reversed earlier government expansion*. However, only one country, Ireland, was able to reduce public spending to around 35 per cent of GDP thus joining the small group of countries with low expenditure levels, a group that included Australia, Switzerland and the United States. But Canada and New Zealand also moved significantly towards joining this group with expenditure levels close to 40 per cent of GDP and not far from the level that the authors of this paper had considered feasible and desirable in their previous work (See Tanzi and Schuknecht (1997, 2000)).

[5] The combination of below trend growth and declining spending ratios suggests even stronger declines in spending in cyclically adjusted terms. This is indeed confirmed by cyclically adjusted expenditure ratios. The cyclically adjusted expenditure levels decline significantly after the expenditure peak and they decline by a similar amount as nominal expenditure levels especially over extended time spans.

How public spending was reduced

Turning to the composition of public spending reform, what broad categories contributed most to total expenditure reduction? Though this discussion cannot be detailed given the large number of countries, broad impressions can be given. Table 2 will help in identifying some patterns. The general picture is that around one third of the reduction was due to a fall in interest payments on public debt. Non-interest expenditure declines accounted for the rest and were rather dramatic in some cases, reaching around 10 per cent of GDP in Canada or Ireland.

About a *third of the total average expenditure reduction* (between the maximum spending year and 2002) *was due to the fall in interest payments*. Interest spending declined by 2.4 per cent of GDP for the whole group and by 2.7 per cent of GDP for the euro zone. The fall in inflationary expectations was particularly important for some countries (Italy and Greece). This fall reduced nominal interest rates and consequently interest payments. However, for some ambitious reformers (mainly Ireland and New Zealand), the fall in the share of public debt to GDP and not the fall in inflation (and the accompanying fall in interest rates), was the main determinant of lower interest payments on public debt.

It is *primary spending*, which *fell by a little more than four per cent of GDP for all countries*, that better reflects fiscal reform, though there were major differences across countries. The reduction was 12.9 per cent of GDP in Canada, 9.5 per cent of GDP in Ireland, and 8 per cent or more in the Netherlands (8.7 per cent), in New Zealand (8.5 per cent), and in Finland (8 per cent). Elsewhere, in Sweden (7 per cent) and Belgium (7.5 per cent) and in Austria, Norway, Spain (more than 5 percent) and a few other countries, the reductions were also large. This is the category where the differences between ambitious performers and timid performers are most noticeable (See Table 2.) As mentioned above, countries that never had a high level of primary spending (Australia, Japan, Switzerland and the United States) had fewer possibilities of, or reasons for, reduction.

Table 2: Composition of expenditure changes: max spending ratio-2002

Percent of GDP

	Change total expenditure	Thereof: interest	Change primary spending	Transfers & subsidies 1/	Government consumption	Investment
Australia	-4.6	-3.1	-1.5	1.5	-2.0	-1.0
Austria	-5.9	-0.8	-5.1	-1.5	-1.8	-1.8
Belgium	-10.5	-3.0	-7.5	-4.0	-1.2	-2.3
Canada	-11.4	1.5	-12.9	-7.0	-5.5	-0.5
Denmark	-4.9	-3.7	-1.2	-1.5	0.4	0.0
Finland	-10.3	-2.3	-8.0	-5.4	-2.6	0.0
France	-1.9	-0.8	-1.2	-0.7	-0.3	-0.2
Germany	-1.8	-0.6	-1.2	0.1	-0.8	-0.5
Greece	-4.2	-6.5	2.3	1.4	0.3	0.6
Ireland	-16.4	-6.8	-9.5	-3.1	-5.8	-0.7
Italy	-9.1	-6.1	-3.0	-1.3	-1.0	-0.7
Japan	-0.2	-0.4	0.2	-1.1	2.4	-1.1
Luxembourg	-5.2	-1.1	-4.0	-2.6	-1.5	0.0
Netherlands	-11.2	-2.5	-8.7	-7.7	-1.0	0.0
New Zealand	-14.9	-6.4	-8.5	-8.0	-0.6	0.1
Norway	-6.6	-1.2	-5.4	-5.0	-0.1	-0.4
Portugal	-0.3	-0.2	-0.1	0.2	0.3	-0.6
Spain	-7.7	-2.2	-5.5	-3.7	-1.0	-0.8
Sweden	-9.7	-2.6	-7.0	-5.2	-1.3	-0.5
Switzerland	-1.4	-0.2	-1.2	-1.2	0.3	-0.3
United Kingdom	-4.3	-2.8	-1.4	1.2	-1.6	-1.1
United States	-3.1	-1.9	-1.1	0.2	-1.5	0.1
Average	-6.6	-2.4	-4.2	-2.5	-1.2	-0.5
Euro zone	-7.0	-2.7	-4.3	-2.3	-1.4	-0.6
Ambitous reformers, early	-13.2	-4.7	-8.6	-5.7	-2.1	-0.7
Ambitious reformers, late	-8.6	-1.3	-7.3	-4.6	-2.0	-0.7
Timid reformers, early	-4.7	-2.4	-2.3	0.1	-1.7	-0.7
Timid reformers, late	-3.7	-2.2	-1.5	-0.7	-0.5	-0.3
Non reformers	-1.6	-2.4	0.8	0.2	1.0	-0.4

Source: EU Commission, AMECO

1/Calculated as residual of primary spending minus investment and consumption.

What does the composition of primary spending reveal? *Reductions in "transfers and subsidies" explain half of the total decline of primary spending*. This category of spending had grown the most in the 1960-1982 period. The differences across countries are striking: ambitious reformers reduced transfers and subsidies by about 6 per cent of GDP (and much more in individual cases) while spending on this category changed little for the other country groups. Once again, New Zealand, the Netherlands, Canada and Finland led the way in reductions in this category. Large reductions were also witnessed in Sweden and Norway. Government consumption declined by about two per cent of GDP in the groups of early and/or ambitious reformers and little amongst late/timid and non-reformers. Reduction in Ireland and Canada in this category was well above that in other countries. Public investment fell in all country groups by 0.3 to 0.7 per cent of GDP. However, these are reductions from peak levels. In Belgium and Austria public investment fell most, by about two per cent of GDP.

In conclusion, the major distinguishing feature in the composition of reform, between ambitious and timid (or non-) reformers, is the curtailment of transfers and subsidies. This is the category that had grown the most in earlier years. Putting it the other way round, *a country that wants to reduce its public expenditure ratio by a significant size has to tackle welfare programmes, including e.g. transfers in cash and in kind or subsidies*. Other expenditure categories offer fewer opportunities for reduction. Over the long run a reduction in public debt can also make a major contribution to the reduction in public spending when the initial debt level is high.

Table 3 *does not support the belief that ambitious reformers have cut primarily productive spending*. Education and health spending developed only slightly less favourably across ambitious reformers than across timid ones. On the other hand, pension spending was contained much better in the group of ambitious reformers.

Table 3: Change in expenditure ratio: maximum spending-2002, selected functional categories

Percent of GDP

	health	education	pensions
Australia	0.9	-0.5	1.3
Austria	-0.8	0.3	-0.3
Belgium	0.5	-0.1	0.7
Canada	-0.8	-2.0	0.0
Denmark	0.3	0.6	-0.7
Finland	-0.9	-1.8	-1.2
France	0.0	-0.2	-0.1
Germany	0.3	-0.2	0.2
Greece	0.2	0.9	1.2
Ireland	-0.8	-1.5	-1.9
Italy	0.2	-0.4	0.3
Japan	0.8	0.1	0.0
Luxembourg	-0.2		1.4
Netherlands	0.1	-2.1	-0.5
New Zealand	0.5	1.9	-1.4
Norway	0.8	-1.3	0.0
Portugal	-0.1	0.0	0.0
Spain	-0.1	0.0	0.0
Sweden	0.5	0.2	-0.9
Switzerland	-1.4	0.0	0.0
United Kingdom	1.3	-0.7	4.0
United States	1.0	-0.4	-0.1
Average	0.1	-0.3	0.1
Euro zone	-0.1	-0.5	0.0
Ambitous reformers, early	0.1	-0.4	-0.8
Ambitious reformers, late	-0.2	-0.8	-0.4
Timid reformers, early	0.7	-0.6	2.2
Timid reformers, late	0.1	-0.1	-0.1
Non reformers	0.3	0.3	0.4

OECD, Social expenditure database and national accounts

III

Public Spending Reform: The Economic and Social Impact

This section considers a number of socio-economic indicators across countries and country groups to gauge the response to the timing and ambition of expenditure reduction. In particular public finance, economic performance, human development, income distribution and institutional quality indicators are considered, in line with our view that governments engage in public spending to influence in desirable ways various socio-economic indicators.

Assessing the impact of reform: the framework

In assessing the impact of expenditure reduction, the focus is primarily on medium and long-term influences and on the different degrees of ambition for reform. A number of data shortcomings must be taken into account. For instance there are only 22 countries with one turning-point (start of reform) per country. Some data on socio-economic indicators are not available on an annual basis but only at 5-year or even 10-year intervals. We will not, therefore, try to force the data into a superficially sophisticated econometric analysis. Instead some patterns about the relationships will be extracted.

Three approaches are used.

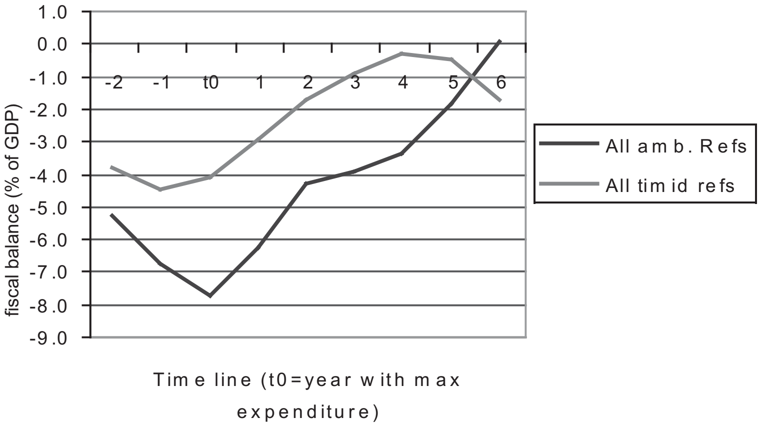
For the medium-term analysis, the year of maximum expenditure is set at t0. This implies that t1 is the first year of reform when expenditure starts to decline and subsequent years are labeled t2 etc. Earlier years are labeled t-1 etc reflecting the period when spending was still on the rise. This makes it possible to compare countries with ambitious, against those with less ambitious, reforms as well as the impact of timing. The results for these country groups will, where possible, be reported. However, because several countries started reducing their public spending only in the early- to mid-1990s this analysis has its limits because the number of observations shrinks rapidly after a few years because data was unavailable after 2002. Moreover, this approach is not useful for variables with less than annual data. This analysis might give progressively stronger results, the more years become available beyond 2002. For the medium to long-term analysis, and for those variables with infrequent data, we look at 5 year averages/intervals and at changes over these averages/intervals. Particular attention will be paid to different degrees of reform ambition resulting in expenditure cuts and to the question when the impact of reform appears to set in. Finally, simple cross-section correlations of levels and changes will be estimated to complement the other methods and to add some robustness to the results.

Sound public finances

One objective of public expenditure reduction is to improve the soundness *of* public finances. This leads to macroeconomic stability, more favourable financing conditions and (for example, via promoting the stability of the tax system) a more friendly environment for work, investment and innovation as the European Commission's Public Finance Report concludes (European Commission, 2004). The two most common variables measuring the soundness of public finances are the fiscal deficit and the ratio of public debt to GDP.

The average fiscal deficit across all countries declined significantly over the past 20 years and in particular after several countries started reforming their expenditure. *Fiscal consolidation was more successful in the countries with ambitious reforms*. In these countries fiscal balances improved by about 8 per cent of GDP on average within six years from the peak expenditure level (Chart 1). Timid reformers reported an average improvement of about half that amount. However, several of them had lower initial fiscal deficits.

Chart 1: Reform ambition and fiscal balances



Medium- to long-term trends in fiscal balances confirm that ambitious reformers achieved significant and more lasting consolidation than timid reformers while non-reformers showed the least fiscal deficit improvements.

Table 4a shows average deficits for 5-year periods between the late- 1970s and the turn of the century. Reforming countries as a group were in surplus or had only limited deficits for the most recent 5-year period while non-reformers still had significant average deficits. The last column shows the improvement in the deficit since expenditure started to decline, again pointing to a deficit reduction more than twice as high for ambitious reformers. However, as already stated, they started with larger deficits than timid reformers. Moreover, *expenditure reduction by ambitious* *reformers financed significant reductions in the tax burdens*. This can be measured by comparing the last column of Table 1 with that of 4a. Tax cuts averaged over 5 per cent of GDP for ambitious and early reformers. By comparison revenue reductions by timid reformers were limited to 1-2 per cent of GDP and the tax burden increased significantly in non-reforming countries.

Table 4: Fiscal variables and expenditure reform

a. Fiscal balances, 5-year averages

	First reform wave		Second reform wave		Change
	1983-87	1988-92	1993-97	1998-2002	since reform
Average, all countries	-3.8	-2.9	-3.3	0.2	
Euro area	-4.9	-3.9	-4.1	-0.5	
Ambitous reformers, early	-7.0	-4.2	-1.5	0.6	7.6
Ambitious reformers, late	-1.5	-1.6	-3.6	2.5	6.1
Timid reformers, early	-1.1	-0.7	-1.9	1.8	2.9
Timid reformers, late	-4.5	-3.5	-3.7	-0.8	2.9
Non reformers	-6.1	-4.9	-5.9	-4.8	

b. Gross public debt, 5-year averages

	First reform wave		Second reform wave		Change
	1983-87	1988-92	1993-97	1998-2002	since reform
Average, all countries	55.9	58.2	68.5	62.1	
Euro area	56.1	62.2	72.8	65.5	
Ambitous reformers, early	91.1	91.8	81.9	61.1	-30.0
Ambitious reformers, late	47.3	50.1	68.8	60.8	-8.0
Timid reformers, early	28.8	22.6	29.4	21.1	-7.6
Timid reformers, late	52.5	56.6	70.1	66.1	-4.0
Non reformers	60.4	68.3	86.0	99.4	

Source: EU Commission, AMECO

Given that a significant share of expenditure reforms was used for fiscal consolidation, it comes as no surprise that expenditure reduction is strongly correlated with progress in debt reduction. The figures also show that debt reduction is a "marathon" and requires time and political tenacity. Table 4b reports average debt ratios (public debt as per cent of GDP) for the country groups for the same 5-year periods as Table 4a. It is noteworthy that the debt ratio among early and ambitious reformers was initially very high (91.1 per cent on average in the mid-1980s) as this group includes Belgium and Ireland which had the highest debt ratios amongst OECD countries. Since then, the debt ratio has come down by an average of 30 per cent of GDP since the late- 1980s when debt for the group peaked on average. The early and timid reformers started with a low debt ratio which declined further (-7.6 per cent). Amongst late and ambitious reformers, progress with gross debt reduction has, so far, been unspectacular (-8.0 per cent). But the figures hide the fact that the Nordic countries, which are part of this group (Finland, Norway, Sweden), have been accumulating significant public assets (surpluses were turned into investments rather than used to reduce public debt) during recent years so that the net worth of the public sector has improved by more than the table shows.

Timid and late reformers, in recent years, have managed to halt and slightly reverse the trend of increasing debt ratios experienced in the previous years. However, because some deficits remained and, as we see below, trend growth has not accelerated, progress in this area has been limited. Note again the significant increase in the debt ratio of non-reformers which reflects Japan's strong fiscal deterioration but also the continued upward creep in Portuguese and Greek public debt.

In summary, expenditure reforms can show quick results in improving deficit figures, but they must be ambitious and durable in order to reverse adverse debt dynamics and significantly reduce public debt ratios.[6]

Economic performance and employment patterns

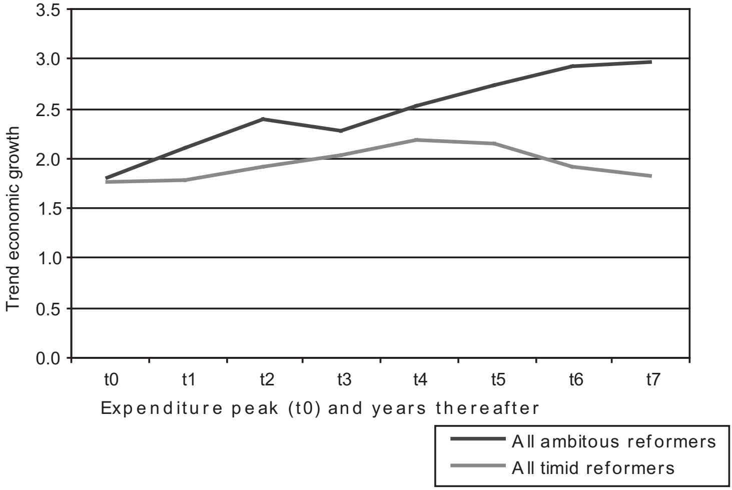
Another favourable result of public expenditure reduction should be the improvement of supply-side conditions via better tax-benefit systems, more efficient government bureaucracy, and less distortionary taxes (see for surveys, Afonso, Ebert, Schuknecht and Thoene, 2005; European Commission 2004). Two variables to proxy the relationship between expenditure reform and economic performance are considered: economic growth and the employment ratio.

Considering real GDP growth after the expenditure reforms, it is noteworthy that, on average, *expenditure reductions, even ambitious ones, were not accompanied by declines in economic growth*. On the contrary, in most cases growth started to improve slowly immediately after reform began, a result contrary to the common fear by policy-makers and others that public expenditure reduction hurts growth.

However, because we are more interested in the medium-to the long-term implications, it is more relevant to look at trend growth developments. Two main results seem noteworthy. First, the *recovery of sustained growth takes time*. People must become convinced that the reforms will not be reversed. Second, the *increase in trend growth is higher for the ambitious reformers*. Chart 2 shows that trend growth for both ambitious and timid reformers averaged exactly the same uninspiring 1.8 per cent of GDP at the peak of public spending, that is at time t0. The growth rate rose about twice as fast in the ambitious reformers' group and reached almost 3 per cent after 6 years, that is at time t6.

6 See also Alesina and others (e.g. Alesina and Perotti, 1995; Briotti, 2004 for a survey) who argue that *expenditure reform is key for longer-lasting public finance consolidation, sustained debt reduction and favourable growth effects*.

Chart 2: Expenditure reform and trend growth



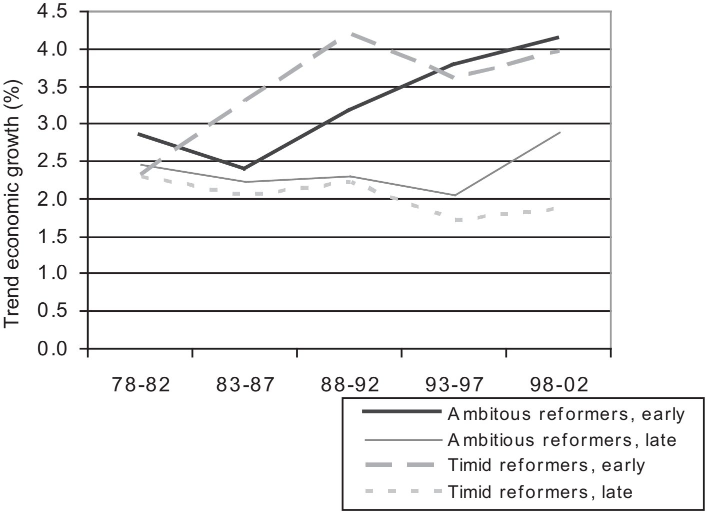
The medium-to long-term analysis confirms this picture but it also illustrates the "head start" of the early reformers. Looking at 5-year period averages (Chart 3), early reformers managed to raise trend growth from nearly 2 per cent in the early 1980s to nearly 4 per cent in the mid-1990s and since then it has stayed broadly constant. Amongst late reformers, those with ambitious programmes reported an average trend growth rate that was boosted from 2 per cent until the mid-1990s to 3 per cent per annum since then. Trend growth of timid reformers has so far remained little changed.[7]

There are some caveats. For example, non-fiscal structural reforms may have been more important to boost trend growth than public expenditure reductions. This may have been the case for countries that had low public expenditure ratios in the whole period, such as Australia and the United States. Additional robustness checks would clearly be desirable. Moreover, trend growth is to some extent correlated with the cycle so that part of the initial trend growth increase may reflect the fact that reforms started during a downturn. But the findings are consistent with those of Tanzi and Schuknecht (2003) and Afonso et al (2005) that look at the relationship between public expenditure and growth trends. Tanzi and Schuknecht, for example, reported the stylised fact that a 10 per cent increase in the ratio of public spending to GDP had reduced long term growth by about 1.5 per cent over the 1960 to 2000 period.

Employment developments parallel the picture for trend growth (Table 5). The employment ratio was relatively similar across country groups in the late 1970s, apart from the

[7] The growth performance of non-reformers is rather diverse. Trend growth in Portugal slowed down over the past 20 years. While such data is not available for Japan, nominal growth and rolling averages also suggest such a pattern for that country. Greece has seen an upward revision in trend growth in recent years although some concerns about the influence of temporary and extraordinary factors (euro area entry, Olympic games) have also been voiced.

Chart 3: Trend growth and reform timing and ambition



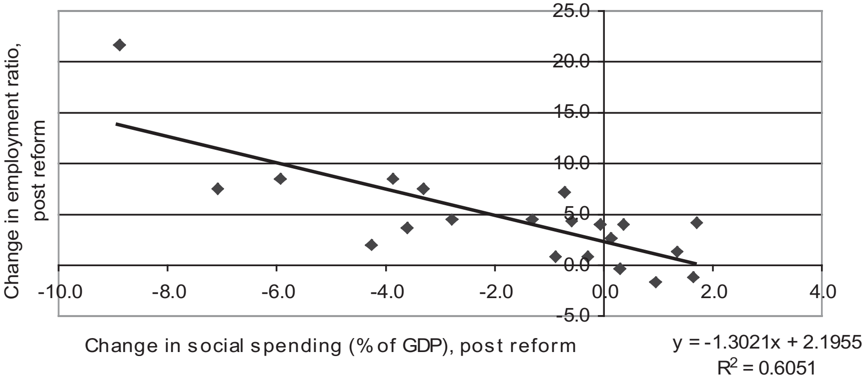
early, ambitious reformers where it was much lower. By the mid-1980s it had fallen in all groups. After that the picture started to change. Early ambitious reformers experienced a limited increase in the employment ratio in the following ten years, that was not much larger than for the other early but timid reformers (although it is the only group with a rising ratio in the early 1990s). Perhaps there was a significant labour shake-out early in the reform process, especially in connection with the privatization of public enterprises; perhaps confidence took time to build; perhaps the focus of these reforms was not on employment incentives so that initial aggregate changes were limited. However, in the late- 1990s, the employment ratio for the ambitious early reformers rose rapidly, so that the overall gain in the employment ratio since the onset of reform exceeded 8 per cent (last column of Table 5).

Table 5: Employment ratio and expenditure reform

	First reform wave		Second reform wave		Change
	1983-87	1988-92	1993-97	1998-2002	since reform
Average, all countries	65.4	67.1	66.0	69.3	
Euro area	60.2	61.8	60.6	64.7	
Ambitous reformers, early	56.0	57.0	58.4	64.4	8.3
Ambitious reformers, late	69.7	70.7	66.7	70.2	3.5
Timid reformers, early	65.6	68.2	67.5	70.0	4.4
Timid reformers, late	67.7	70.4	69.8	72.2	2.4
Non reformers	64.9	65.7	65.4	67.4	

Source: EU Commission, AMECO

Chart 4: Social expenditure and employment ratio



The late and ambitious reformers reported an employment ratio in the mid-1990s that was well below the late-1970s. But it increased strongly together with expenditure reform in recent years. Non-reformers now show an employment ratio that is lower than it was 25 years ago.

The correlation between employment ratios and social expenditure reform is particularly noteworthy. Chart 4 shows the change in the social expenditure ratio and in the employment ratio since the expenditure peak was reached. There is a rather significant correlation between the two with a 1 percentage point decline in the social spending-to-GDP-ratio being correlated with a 1.3 percentage point increase in the employment ratio.

Income distribution and human development

Many critics of public expenditure reform point to potential adverse implications for income distribution and human development. As shown in Table 2, expenditure reform has led to cuts in social transfers and spending which, it is assumed, disproportionately benefited the less well-off. However, there is limited empirical backing for such a hypothesis. Studies of this issue suggest a number of underlying reasons for poor targeting of social spending: public investment is not always productive; government consumption does not necessarily mean more education or more security but often more waste and red tape. Higher taxes and less growth may result in lower employment and wage gains for lower income individuals. Gross social spending, as used in some analytical studies, may not accurately reflect the role of the state because the effects of the tax system, especially tax expenditure, and of private social support are not taken into account.[8]

[8] See, for example, Tanzi and Schuknecht (2000), Tanzi (2004), Adema (2004) on net social spending, and various other OECD studies on the targeting of social spending, income distribution indicators etc.

Here the possible correlation between expenditure reform and income distribution is considered by looking at three types of indicators available from the OECD for most industrialised countries. Although these indicators are not available annually, the OECD provides observations for the mid-1980s and mid-1990s (which coincide broadly with the two main "waves" of expenditure reform) and for 2000 so that an impression of levels and changes in the past 15 years is available.

The picture that arises from these data and their correlation with public expenditure developments is rather complex.

First, *income distribution in industrialized countries has become less equal since the mid-1980s* (Table 6a-c, first line). The share of the population that lives on less than half the median income has increased by about 1 per cent, rising to about 10 per cent of the total population which means that 9 per cent of the population lived on less than half the median income before then. The Gini coefficient (a well-known measure of income distribution where a higher number means more inequality) has risen from an average of 0.28 to 0.294. The income share of the poorest 20 per cent of households has fallen from 8.6 to 8.2 per cent of total national income.

Table 6: Income distribution and expenditure reform

a. Share of total population below 50% of median income

	Mid-1980s	Mid-1990s	2000	mid-1980s-2000
Average, all countries	9.0%	9.6%	10.1%	1.1%
Euro area	9.3%	10.1%	10.5%	1.2%
Ambitous reformers, early	6.5%	8.4%	10.6%	4.1%
Ambitious reformers, late	6.4%	6.7%	7.5%	1.1%
Timid reformers, early	6.9%	10.9%	11.4%	4.5%
Timid reformers, late	9.6%	10.3%	10.3%	0.6%
Non reformers	14.8%	14.2%	13.6%	-1.2%

b. Gini coefficient

	Mid-1980s	Mid-1990s	2000	mid-1980s-2000
Average, all countries	28.0	29.0	29.4	1.3
Euro area	28.7	29.5	29.6	0.9
Ambitous reformers, early	27.8	30.3	29.7	1.9
Ambitious reformers, late	23.6	24.4	26.3	2.7
Timid reformers, early	29.9	30.8	31.5	1.6
Timid reformers, late	28.3	29.3	29.2	0.9
Non reformers	34.5	34.7	35.0	0.5

c. Income share of poorest quitile of households

	Mid-1980s	Mid-1990s	2000	mid-1980s-2000
Average, all countries	8.6%	8.4%	8.2%	-0.4%
Euro area	9.0%	8.7%	8.5%	-0.4%
Ambitous reformers, early	9.4%	8.9%	8.9%	-0.5%
Ambitious reformers, late	9.9%	10.0%	9.4%	-0.5%
Timid reformers, early	8.3%	8.0%	7.8%	-0.5%
Timid reformers, late	8.3%	8.1%	7.9%	-0.4%
Non reformers	7.9%	7.6%	7.6%	-0.3%

d. Per-capita GDP poorest quintile, 1995 prices, PPP US$

	Mid-1980s	Mid-1990s	2000	mid-1980s-2000
				% change
Average, all countries	7374	8677	9893	34.2
Euro area	6917	8128	9458	36.7
Ambitous reformers, early	7273	8456	10400	43.0
Ambitious reformers, late	9213	10532	11813	28.2
Timid reformers, early	6936	8141	9036	30.3
Timid reformers, late	7735	9047	9860	27.5
Non reformers	4299	4984	5819	35.4

Source: OECD

Second, and as expected, there is indeed a positive correlation between total public spending and the income distribution indicators, but there is much less correlation between changes in public spending and changes in these indicators. Since it is the changes that are important in assessing the impact of fiscal reform, this points to a *rather limited trade-off from expenditure reform in terms of income distribution*. Consider Table 7. The correlation coefficient (a common measure of co-movement where 1.0 would imply complete co-movement) between total expenditure and the relevant indicators of income distribution for the year 2000 is 0.43 to 0.62.[9] But that for changes in public spending and income distribution since expenditure reform started is only 0.23 for the income share of the poorest 20 per cent and 0.37 for the Gini coefficient. Only for the indicator that represents the change in the share of households below 50 per cent of median income, the correlation with expenditure reform is statistically significant (i.e. there is evidence that more spending reductions were accompanied by a larger share of households that had to live with less than 1/2 of median income). For all these variables, the correlation with public spending is even weaker (rather than stronger) when looking at levels and changes in social spending. These findings mean that before reform, higher public spending meant more equal income distribution. But expenditure reform has largely not led to a significant worsening of income distribution in these countries.

Table 7: Correlation coefficients, income distribution / human development- total expenditure

	Total expenditure, 2000	Change in expenditure, post reform-2000
Share below 1/2 median income, 2000	-0.62	
Change, post reform-2000		-0.59
Gini coefficient, 2000	-0.50	
Change, post reform-2000		-0.37
Income share, bottom quintile, 2000	0.43	
Change, post reform-2000		0.23
Human development index, 2000	0.02	
Change, post reform-2000		-0.36
Source: OECD, UNDP		

[9] The correlation coefficient for net spending and income distribution in 1997 is 0.57 (on the basis of data by Adema, 2001).

This finding of a *modest relation between expenditure and income distribution changes* is consistent with the literature that looks at the "targeting" and distributional implications of social spending. Arjona, Ladaique and Pearson (2001), for example, found that the distributional effects of government spending, net of "churning", was very small in some "big" government countries such as Germany, France and Italy and hardly exceeded that of the United States. Moreover, the targeting of social spending has improved in a number of countries that have undertaken significant expenditure reform. In fact these reforms seem to force governments to target their social spending better.

Third, *expenditure reform has resulted in an "equalization" of income distribution patterns across country groups*. This can be seen in Table 6. Ambitious reformers, for example, reported more equal than average income distribution in the mid-1980s. By 2000, indicators had worsened but they still show a relatively favourable situation for the poor in this group relative to the average for all countries. If expenditure reform had a significantly adverse impact on income distribution, timid reformers should report more favourable changes than ambitious reformers. But this is not the case and changes are rather similar across these country groups. Non-reformers report unfavourable income distribution indicators that also have not improved much relative to the other groups. This supports the above finding that changes in spending and income distribution are only weakly correlated.

So far we have looked at income distribution in relative terms. One can also compare absolute income levels of the poorest quintile by countries. *Stronger growth has on average moderated and in some cases over-compensated the changes in the income share of the poorest quintile* for ambitious reformers. For example, since 1990, the absolute position of the poorest quintile has improved most among ambitious and early reformers (from 5 per cent below average to 5 per cent above). At the same time, the position of the poor in timid and late reformers may not have deteriorated much within the country but it has relative to those that grew faster. Living standards amongst the poorest quintile are still highest in the group of late and ambitious reformers (15 per cent above the average for all sample countries). (See Table 6d.)

Finally, we examine indicators for the "quality of life". Many indicators could be looked at, including living standards, health and education standards, infrastructure quality, crime, and environment. We limit ourselves in this study to the UN Human Development Index (HDI) which combines indicators of longevity, educational attainment and enrollment ratios and living standards (per-capita GDP, PPP US$) (UNDP, 2003).

We find no correlation between the level of total spending and the HDI (Table 7). The evidence here suggests that countries with higher public spending (as a percentage of GDP) do not have a higher quality of life as measured by this index. For example, some highly developed countries such as the United States and Australia, which have public spending levels close to 30 percent of GDP, have some of the highest scores on the Human Development Index (UNDP in Tanzi 2004 p.8). When looking at changes in public spending and changes in the HDI, there is a moderate negative correlation (-0.36) between the two. This implies that more ambitious spending reductions coincided with stronger increases in the quality of life index.

The quality of institutions

The past 20 years have witnessed a renaissance of classical economists' thinking as to the role of government in setting the rules of the game for itself and for markets. A sound institutional framework can promote growth and economic dynamism in the neoclassical sense of facilitating factor accumulation and productivity. This is because good institutions create an environment in which property rights are protected and contracts are enforced and where people are free to make contracts on a level playing field. As a consequence, incentives to save, invest, work and innovate are boosted.[10]

The fiscal role of the state is indirectly linked to the quality of institutions as it is hard to conceive a functioning market economy without well-trained and well-paid policy-makers, administrators, judges and policemen (Tanzi and Schuknecht, 2000; van Rijckeghem and Weder, 2002). In as much as higher spending aims to achieve this purpose, it should improve the institutional environment of an economy. However, if higher spending means more bureaucratic red tape, more rent-seeking opportunities (which in turn breed corruption) and a large informal economy (because of the higher tax rates that high spending requires), that does not benefit from protective institutions, then a reduction in public expenditure could well imply an improved institutional environment.[11]

We look at four indicators to measure institutional quality. The first three on corruption, red tape and quality of the judiciary are surveys based and published in the World Competitiveness Report since about 1990. The fourth is a composite indicator, measuring the quality of the legal structure and the security of property rights. It is available as a sub-indicator of the Fraser Institute's Economic Freedom measure since the mid-1970s. As regards the *overall level of these indicators, industrialized countries on average report very high levels* (Table 8a and b). This suggests that the institutional infrastructure operates well. While red tape and corruption seem to have worsened, the legal structure and security of property rights have improved in the past 10-15 years. Southern European countries and Japan fare relatively poorly. Scandinavian countries report significant improvements in these indicators while the picture for Anglo-Saxon countries and other continental European countries is more mixed.

[10] See economists and political philosophers from David Hume and Adam Smith to the Austrian School of Economics, andpublic choice and institutional economics with proponents such as Hayek, Buchanan or Douglas North.
[11] While we limit ourselves to analyzing aggregates, a more detailed analysis of spending composition would be warranted in this context.

Table 8: Institutional indicators and expendtiure

a. Corruption, red tape, quality of judiciary

	Corruption		Change	Red tape		Change	Quality of the judiciary		Change
	1990	2001	1990s	1990	2001	1990s	1990	2001	1990s
Australia	6.6	8.2	1.6	4.1	4.9	0.8	7.8	8.5	0.7
Austria	5.2	6.9	1.7	4.9	4.1	-0.7	7.3	9.0	1.7
Belgium	5.5	5.2	-0.3	3.8	2.8	-1.0	6.2	5.7	-0.5
Canada	7.5	7.8	0.3	4.6	4.6	0.0	8.4	8.5	0.1
Denmark	9.2	9.0	-0.1	4.7	5.0	0.3	8.4	8.6	0.2
Finland	7.8	9.5	1.7	5.5	6.4	0.9	8.4	8.7	0.3
France	6.0	4.2	-1.8	4.1	1.8	-2.3	6.2	5.9	-0.4
Germany	7.6	6.9	-0.7	4.8	3.9	-0.9	8.2	8.2	0.1
Greece	2.8	3.0	0.2	1.9	2.3	0.4	5.0	6.2	1.2
Ireland	7.0	5.5	-1.4	5.3	5.6	0.3	8.1	7.6	-0.5
Italy	2.6	3.5	1.0	2.8	2.0	-0.8	3.2	3.6	0.4
Japan	5.5	4.3	-1.2	5.3	2.6	-2.7	7.8	6.3	-1.5
Luxembourg	5.5	7.4	1.9	3.8	4.1	0.3	6.2	7.5	1.3
Netherlands	8.1	8.0	-0.2	5.4	4.7	-0.7	8.1	8.3	0.1
New Zealand	8.4	8.8	0.3	6.3	4.3	-1.9	7.9	8.3	0.4
Norway	7.4	8.1	0.7	4.0	3.0	-1.0	8.2	8.3	0.1
Portugal	4.5	3.9	-0.6	3.3	2.2	-1.1	8.0	2.7	-5.3
Spain	3.8	5.6	1.8	3.2	4.0	0.8	2.9	4.4	1.5
Sweden	7.6	8.6	1.0	4.6	5.6	1.0	7.1	8.5	1.5
Switzerland	7.9	7.2	-0.7	6.1	5.4	-0.7	8.7	8.0	-0.7
United Kingdom	8.0	6.8	-1.2	6.0	3.1	-2.8	7.5	7.4	-0.1
United States	6.5	6.6	0.0	5.3	3.7	-1.6	7.6	7.1	-0.5
Average	6.4	6.6	0.2	4.5	3.9	-0.6	7.1	7.1	0.0
Euro zone	5.5	5.8	0.3	4.1	3.7	-0.4	6.5	6.5	0.0
Ambitous reformers, early	7.3	6.9	-0.4	5.2	4.4	-0.8	7.6	7.5	-0.1
Ambitious reformers, late	6.5	7.7	1.2	4.5	4.6	0.2	7.1	7.9	0.9
Timid reformers, early	6.7	7.5	0.8	4.6	4.1	-0.6	7.2	7.8	0.6
Timid reformers, late	6.6	6.2	-0.4	4.6	3.6	-1.0	7.0	6.9	-0.2
Non reformers	4.3	3.7	-0.5	3.5	2.4	-1.1	6.9	5.0	-1.9

Source: World Competitiveness Report and AMECO

Table 8: Institutional indicators and expendtiure continued

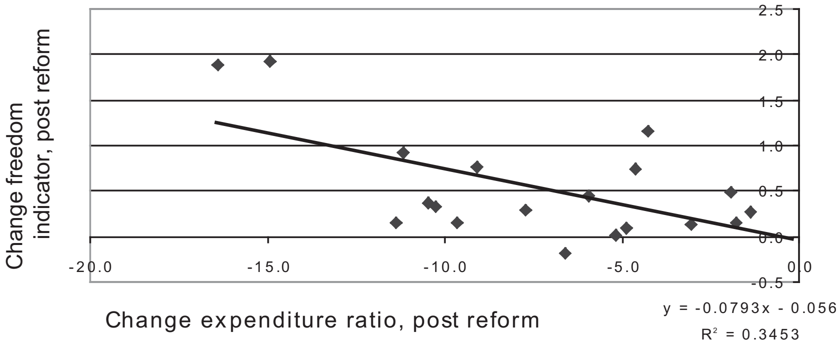
b. Economic freedom (Chapter 2, legal structure and security of property rights)

Countries	1980	1985	1990	1995	2000	Change post-reform
Australia	7.3	7.9	7.9	8.8	9.5	1.6
Austria	8.0	7.9	8.3	8.6	9.3	0.8
Belgium	7.8	7.9	8.3	7.3	8.3	0.4
Canada	7.2	7.9	8.3	8.9	9.3	0.3
Denmark	7.2	7.9	8.3	8.9	9.5	0.6
Finland	6.8	7.9	8.3	9.1	9.5	0.4
France	6.8	7.2	7.7	7.4	8.1	0.7
Germany	7.7	7.5	8.3	9.0	9.1	0.2
Greece	5.6	5.6	6.8	6.6	5.7	
Ireland	7.1	6.7	7.7	8.9	9.0	2.3
Italy	5.7	6.8	7.7	5.7	7.7	1.9
Japan	7.9	7.2	7.7	7.8	8.2	
Luxembourg	7.8	8.3	8.3	8.9	8.3	0.0
Netherlands	7.5	8.3	8.3	8.9	9.6	1.3
New Zealand	8.0	7.9	8.3	9.0	9.1	1.2
Norway	7.0	8.1	8.3	9.0	8.8	-0.1
Portugal	8.0	6.1	7.7	7.6	7.6	
Spain	6.3	6.4	7.2	7.4	7.5	0.2
Sweden	6.6	7.4	8.3	8.6	9.0	0.5
Switzerland	8.1	8.3	8.3	8.9	9.3	0.3
United Kingdom	7.0	6.7	7.7	8.9	9.3	2.6
United States	8.3	8.3	8.3	8.6	9.2	0.6
Average	7.3	7.5	8.0	8.3	8.7	0.8
Euro zone	7.1	7.2	7.9	7.9	8.3	0.8
Ambitous reformers, early	7.6	7.7	8.2	8.5	9.0	1.3
Ambitious reformers, late	7.0	7.6	8.1	8.6	8.9	0.3
Timid reformers, early	7.4	7.6	8.0	8.9	9.0	1.4
Timid reformers, late	7.3	7.7	8.1	8.1	8.8	0.7
Non reformers	6.8	5.8	7.2	7.1	6.7	

Source: Gwartney et. al, Fraser Institute

On the whole, there is no clear correlation for the industrialized countries between the size of government and institutional quality. But there is a *modest to strong correlation between changes in public spending since the onset of reform and changes in institutional quality* which implies that a reduction in public spending raises institutional quality. The correlation (coefficient of -0.58) between, for example, changes in public expenditure ratios and property rights/economic freedom is illustrated by Chart 5.

Chart 5: Expenditure reform and economic freedom



IV

Conclusion: Lessons for the Future

Public expenditure in most industrialised countries grew remarkably throughout the 20th century. However, in the 1980s, the tide began to turn. Since then a number of industrialised countries have reduced public spending, and in a sample of 22 the figure is as much as 7 per cent of GDP. The timing and pattern have varied between the early and later reformers, but the results have much in common.

The economic story is one of success. Fiscal consolidation and a fall in debt ratios characterise the reformers. There has also been economic and employment growth. Indeed, the earlier or more ambitious the reform, the greater the success!

In social policy the story goes to the heart of to-day's political debate across the industrialised (mainly) western economies. Though politicians – and their electorates – may say spending cuts damage vital productive and social spending, the evidence suggests otherwise. The evidence is that the ambitious reformers did not concentrate the cuts on productive spending like education, but instead curtailed subsidies and transfers.

The institutional environment too has benefited from reform. The figures imply that a reduction in public spending raises institutional quality across a range of indicators including legal structures and security of property rights.

And finally, on income distribution, though it has become somewhat less equal across all countries over the past 20 years, reform has not significantly worsened income distribution. Indeed stronger growth has moderated and, in some cases over-compensated, the changes in income share of the poorest.

For the future, the message is clear. Many of the world's major industrialised countries have cut public spending in the last decades, bringing their public spending nearer to around 30 or 35 per cent of GDP which appears quite sufficient to attain key government policy objectives. The evidence is that their public spending reforms have promoted sound public finances and coincided with higher economic growth. And, they have been achieved without significant cuts in productive programmes. Politicians of a number of countries have brought the case for reform to their electorates and had the courage to see it through. The experience of life after public spending reform – with surprisingly little pain for much gain – should encourage politicians elsewhere to do likewise.

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Annex Table – Variables and series

Variable	Sources
All fiscal variables (except functional expenditure)	European Commission, Ameco
Output, employment and income variables	European Commission, Ameco (trend growth and employment ratio); OECD (per-capita GDP, PPP US$)
Income distribution	OECD(share of population below 50 per cent of median income, Gini coefficient, income share of poorest quintile of households)
Corruption	World Economic Forum: The World Competitiveness Report 1990, item "10.22 Corruption" (for 1990)
	World Economic Forum, The World Competitiveness Yearbook 2001, item 2.3.16 Bribing and corruption (for 2001).
Red tape	World Economic Forum: The World Competitiveness Report 1990, item "6.21 Regulatory environment" (for 1990)
	World Economic Forum, The World Competitiveness Yearbook 2001, "Bureaucracy" (for 2001).
Efficient judiciary	World Economic Forum: The World Competitiveness Report 1990, item "10.04 Confidence in administration of justice" (for 1990)
	World Economic Forum, The World Competitiveness Yearbook 2001, "Justice" (for 2001).
Economic freedom	Gwartney et. al, Fraser Institute (various issues) Freedom in the World, Vancouver.
Public education	OECD, Social expenditure database and national accounts
Public health	OECD, Social Expenditure database and national accounts
Public pension	OECD, Social Expenditure database.

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