

EUROFRAME CONFERENCE:

Fiscal Policies in the European Union

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The Finnish experience of fiscal consolidation in the 1990s: what was cyclical and what was structural?

by

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1. Introduction

This paper deals with the lessons from past fiscal stabilisation and the effectiveness of fiscal policy. It uses the case of Finland to illuminate the feedback mechanisms of fiscal impulses and to show how difficult it is to construct a reliable measure of cyclically adjusted government balance.

The Finnish economy experienced an exceptionally deep recession in the beginning of the 1990s. The Finnish GDP shrank by 10 percent in 1991-93, and employment decreased by 20 percent. As a consequence, unemployment rate rose from 3 to 17 percent. Unemployment peaked in years 1993-94. Finland had a relatively deep fiscal deficit in 1992-94 when the rate of unemployment was highest: the EMU deficit was 7 percent of GDP, and the total central government deficit 12 percent of GDP.

The recession and the subsequent output and employment losses helped to make the case that the crisis and slow growth were not results of a mere macroeconomic co-ordination failure but instead a deeper systemic malfunction ultimately caused by the structures of welfare state: too generous benefits, labour market rigidities and high taxes. Such an analysis implied a view according to which the solving of budgetary problems required structural improvements in the public finances. Consequently, in the first half of 1990s fiscal policy was tightened with discretionary tax increases and spending cuts. These policies aimed to fiscal consolidation and to the fulfilment of the EMU convergence criteria. However, the deficit was not much cured by these spending cuts – at least not in the short run. Higher taxes and reduced public spending seemed to increase unemployment and to lead to higher than expected social spending and lower than expected tax revenue.

The Finnish recession and the rise of unemployment turned out not to be permanent. Instead, the Finnish economy started a strong recovery, and unemployment fell during the latter half of the 1990s by 7 percentage points. Economic growth was fast, too, averaging 4½ percent in 1994-2000.

In the latter half of the 1990s fiscal policy was at least partly pro-cyclical; lower interest rates and earlier budgetary savings created new leeway for policy-makers, who used the higher than expected tax revenues to finance tax cuts and increased public spending. In the environment of decreasing real interest rates, improved competitiveness and growing employment expansionary fiscal policy did not threaten fiscal stability. Instead, fiscal balances improved more than in any other European economy. After six years of rapid growth and falling unemployment, Finland had a record high (7 percent of GDP) fiscal surplus in 2000.

The aim of this paper is to decompose the changes in the fiscal balance into cyclical and discretionary parts. We also describe and shortly analyse the macroeconomic dynamics related to the Finnish credit cycle to give a background.

Traditional measure of cyclically-adjusted deficits are not very helpful in this case because it is very difficult to measure the level of structural unemployment and output gap, as can be seen by comparing the OECD estimates of cyclical deficit for the period from different years. In the analysis the public expenditure is divided into non-cyclical primary expenditure and cyclical expenditures. The impact of discretionary changes are measured. Correspondingly, the revenue side changes are decomposed into changes in tax rates (in labour, corporate income and consumption taxes), tax bases and in non-tax receipts such as privatisation income. We are going to use demand elasticity estimates to derive the behavioural impacts of discretionary fiscal measures in order to quantify the role of fiscal policy in the determination of economic growth and employment. Our analysis is suggestive to the direction with more emphasis on the aggregate demand effects of the fiscal policy than the behavioural effects – with one notable exception, which is the corporate tax reform and subsequent changes in corporate tax revenue.

It is expected that the paper can offer some lessons which might be useful to other European countries.

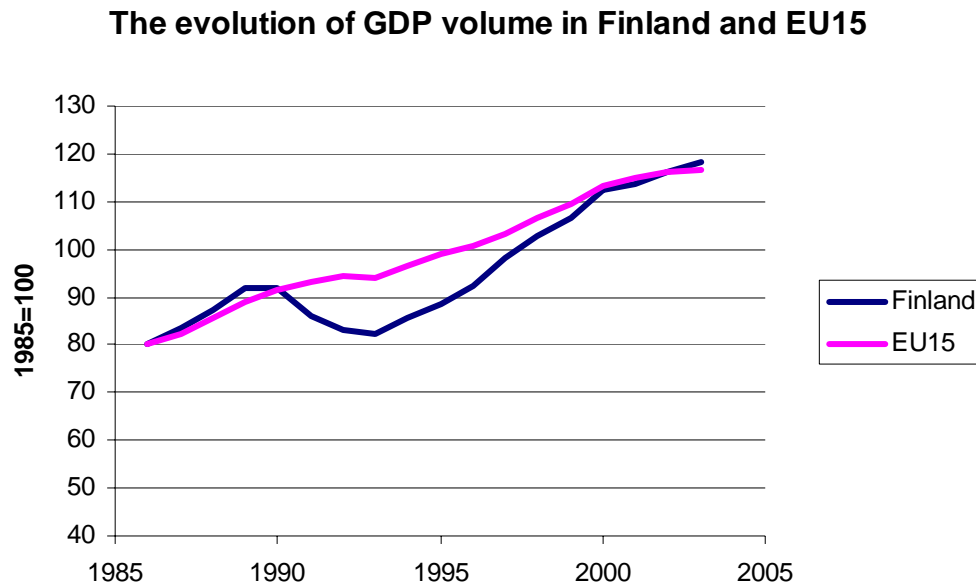
2. Background: the economic crisis of 1990-93

In the early 1990s all OECD countries experienced a period of slow growth and rising unemployment. In the case of Finland, the recession of the 1990s turned out to be the worst in modern peacetime history. No other country of the European Union or OECD was as hard hit as Finland in those years. Real GDP declined by 13 per cent from 1990 to 1993, employment fell by 18 per cent between 1991 and 1994, and unemployment rose more than fivefold, from 3,1 per cent in 1990 to 16,7 per cent in 1994. In order to understand the nature of the Finnish unemployment problem it is important to know whether the roots of the crisis and subsequent unemployment were structural or cyclical, and what was the role of exogenous factors.

The crisis was preceded by a long and strong economic boom of the 1980s which finally turned into a bust in the beginning of the 1990s. The problems of the economy were caused by deteriorating competitiveness caused by real exchange rate appreciation, decreasing demand in the export markets due to international business cycle and by rising European interest rates. All these factors together worsened the Finnish current account deficit and eroded the credibility of the fixed exchange rate regime. In years 1989-92, the central bank of Finland – together with many other European central banks – tried to defend the exchange rate by maintaining high interest rates, a policy which severely strained indebted firms and households. The policy of tight money caused a

three-year period of high real interest rates, falling output and collapsing asset prices, and finally debt-deflation, financial and banking crises and currency crisis. The recession of Finland (like the recessions of many other European countries at the same time) was connected with the failure of the European system of fixed exchange rates and high interest rates imposed to all European countries through the EMS by the German central bank, the Bundesbank. The climax of the recession was the European currency crisis in the autumn of 1992.¹

FIGURE 1



The recession was started by high interest rates which eventually led to debt deflation and contraction of domestic demand. The deflationary process ended quickly when Finland with many other countries allowed their currencies to float and depreciate in the autumn of 1992. After that interest rates decreased and domestic demand and employment were gradually revived. The recession was clearly financial and monetary by nature. Hence it is not easy to argue convincingly that the Finnish unemployment problem of the 1990s would primarily be caused by structural factors. The recession was successful in reducing the inflation rate which previously tended to be higher than the German rate.. After the recessions the Finnish inflation rate was even lower than those of other European countries. Disinflation is seldom cost-free and it certainly was not in this case. It was the rise of unemployment which in part helped to get price and wage pressured down.²

¹ See Bordes et al (1993), Honkapohja and Koskela (1999), Kiander and Vartia (1996). A very similar Swedish crisis has been analysed e.g. by Jonung et al (1996) and Englund (1999).

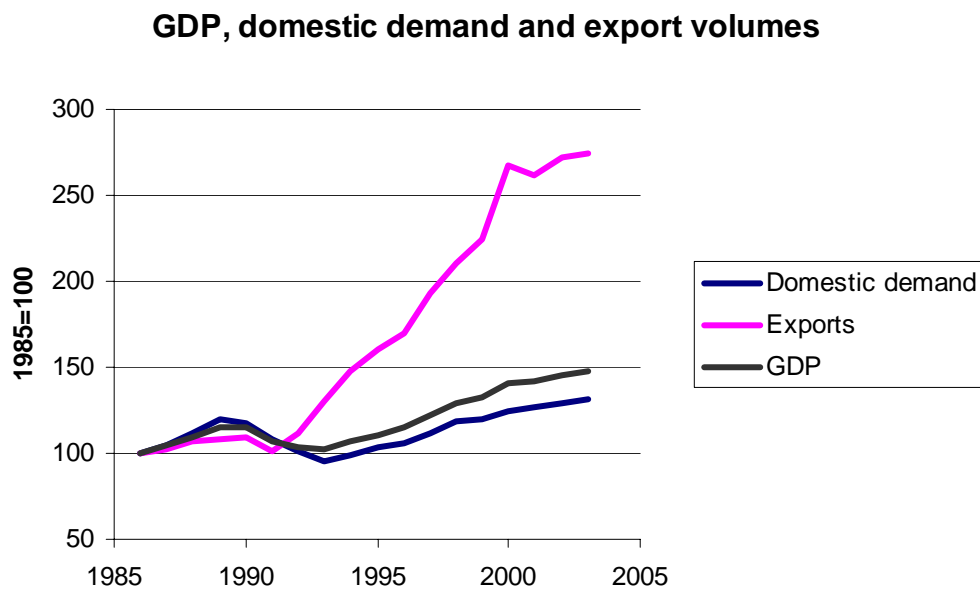
² King (1994) has emphasized the importance of debt-deflation (overindebtedness with subsequent asset price deflation) as a crucial mechanism behind the negative demand shocks in the European recessions in the beginning of the 1990s. According to Svensson (1994), the policy of fixed exchange rates increased financial fragility and made the recessions worse in many countries, especially in Finland and Sweden. For the concept of debt-deflation, see Wolfson (1996).

FIGURE 2



There is a widespread view of Finnish crisis as a result of the Soviet collapse but closer analysis shows that such a view is an oversimplified and inaccurate explanation. It is true that the Finnish exports to Soviet Union were reduced suddenly and this caused a 10 percent loss of exports in 1991. However, the Finnish exports recovered rather quickly. The recession of domestic demand was much more long-lasting and much deeper than the export problems caused by the collapse of the Soviet Union.³

FIGURE 3



³ Barrell (1996) has estimated that the temporary loss of the Soviet export market in 1990-91 decreased Finnish GDP only by 2 percent – a shock which is hardly sufficient to explain a four-year recession with 10 percent decline of GDP.

The precipitous decline of output in the early 1990s was followed by a steep rise of economic growth since 1994; output growth averaged 4,5 per cent a year in 1994-2000. At the same time, unemployment fell rapidly from the 17 per cent peak in 1994 to 9½ per cent in 2001. Beginning in the mid-1990s, the Finland was not only able to revert to the high growth path preceding the economic downturn, but managed also to further diversify and strengthen the competitiveness of the economy. The strong recovery and structural change were achieved without sacrificing the basic social security of citizens. The Finnish version of the Nordic welfare state model and the corporatist labour market institutions, including industrial relations based on a broad social consensus and centralised collective bargaining survived the turbulent times, too.

One of the main conclusions to be drawn from the Finnish business cycle of the 1990s is that economic policy matters and financial factors should not be neglected. Policy failures can have disastrous consequences, and macroeconomic policies can also be used to speed up non-inflationary growth. This applies to exchange rate, monetary and fiscal policies.

The macroeconomic fluctuations in the 1990s have been much larger in Finland than in other industrialised countries. Especially this applies to employment and unemployment (see Table 1). The rise of unemployment was clearly different in Finland if compared to other European countries, and so was the recovery, too. While all industrial countries suffered from severe recessions in the end of the 1980s and the beginning of the 1990s, it was only in Finland and Sweden where the recession was severe enough to be called a crisis or even a depression.

TABLE 1. The economic crises of the end of 1980s and early 1990s

	Years of recession	Relative employment change, percent	Largest output gap (OECD estimate), percent of GDP	Change of inflation, percentage points	Increase of unemployment, percentage points
Finland	1990-93	-18.8	-11.3	-6.0	14.9
Sweden	1991-93	-14.7	-5.3	-9.5	6.5
Norway	1988-90	-8.7	-4.3	-7.3	3.9
Denmark	1987-93	-6.5	-5.5	-3.5	4.5
EU	1992-93	-4.0	-2.9	-3.1	3.7
USA	1990-91	-1.0	-2.5	-2.8	2.2

Source: Author's own calculations based on data of OECD Economic Outlook (2000)

The spectacular rise of unemployment in Finland was clearly connected to corresponding changes in employment and output. However, it is noteworthy that other Nordic countries suffered also from relatively deep recessions and output losses at the same time, but with significantly less unemployment.

FIGURE 4



For a while it would have been intriguing to suggest that the Nordic recessions were symptoms of systemic crises caused by welfare states and related labour market institutions. However, after the deep recessions of the early 1990s, all Nordic countries experienced strong recoveries. Within the Nordic group, the growth rates of output, productivity and employment were clearly fastest in Finland, and even better than in the US.⁴

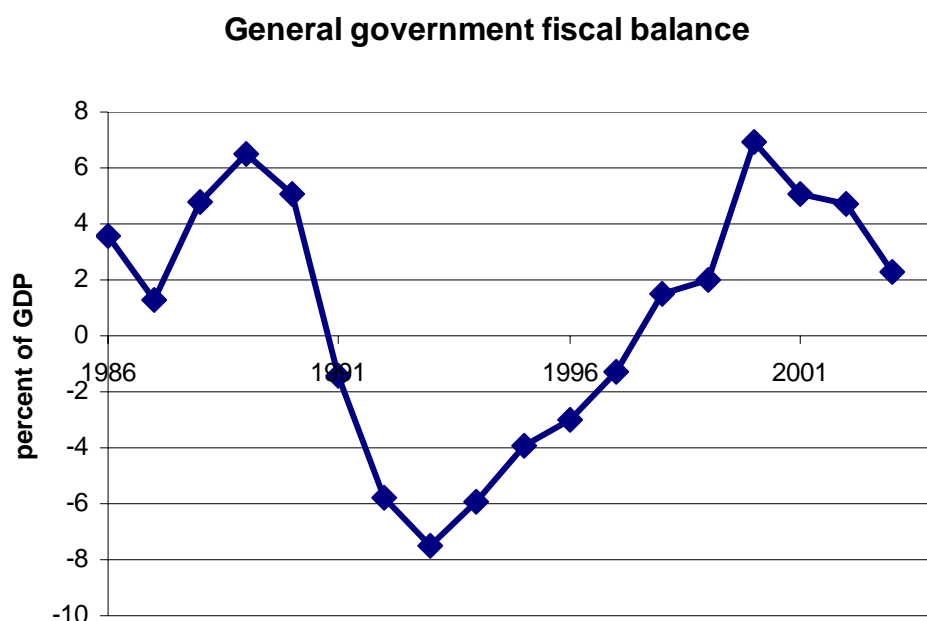
The period of recovery (years 1994-2000) was characterised by rapid growth in output, employment and labour productivity. Moreover, the main sources of output growth were strong export performance and declining interest rates. That was also reflected in the current account, which in the case of Finland improved from a deep deficit (5 percent of GDP) to an equally large surplus. The export-led recovery was made possible by improved competitiveness; there was a significant real exchange rate depreciation during the 1990s. At the same time, the growth was not directly supported by public sector.

⁴ In the mid-1990s there were discussions suggesting that the Nordic recessions were not only cyclical phenomena but reflected also deeper structural problems (cf. Lindbeck (1997) and Lindbeck et al (1995)). However, since then many European countries have experienced employment revivals (see e.g. Auer (2000)).

3. Fiscal policy in the 1990s

The recession caused a lot of strain to the public finances. Initially – in 1990 – the public sector had a healthy surplus. The recession, rising unemployment and high interest rates changed this situation quickly and fiscal balances deteriorated significantly; the change was more than 14 percent of GDP, a figure matched only by Sweden. Although the change was big and sudden, it was proportional to the employment losses. Hence there is no reason to argue that the actual large deficits would have been caused by expansionary fiscal policy – or by increases in structural deficits. The rising deficits were of course what one would expect to happen in a deep recession: the automatic stabilisers increase expenditure and decrease tax revenue. In the Finnish case, the fiscal balance was further weakened by the need for public bank support in 1992-94, when the banking crisis became evident.⁵ In 1991-93 the increasing unemployment weakened almost linearly the fiscal balance.

FIGURE 5



There were numerous discretionary fiscal policy measures which took place during the 1990s. The government reformed taxation and benefit schemes, and constrained the growth of discretionary public spending, and in some cases even made abrupt spending cuts in some programs. The objectives of these fiscal policy measures were not only to consolidate public finances and to reduce public debt, but also to reduce labour taxation and to reform the welfare programs (especially different income-related benefits and fees) so that the work incentives of the unemployed would improve. At the same time, the government clearly stated its wish to maintain the Finnish welfare state. That has been done by maintaining the level of publicly provided social services and the different programs of social protection.

The central government and the local government sector responded to the widening deficits - after a certain lag - by cutting expenditures and raising taxes, and thus weakening the automatic stabilisers.

⁵ It has been suggested by some researchers that the Nordic recessions would have been partly caused by excessive fiscal deficits and hence by unsustainable and expansionary fiscal policy (see Corsetti and Roubini (1996) and Giavazzi and Pagano (1995)). However, closer analysis of discretionary policies do not support such a view.

It was generally viewed that unrestricted functioning of automatic stabilisers would have led to too large deficit. This was reflected in the real public demand, which clearly decreased in absolute numbers in 1992-94.

The discretionary political response of government to the crisis was not an accommodative macroeconomic policy but instead an attempt to speed up structural adjustment of the economy, and the labour market and welfare state institutions. Decision makers were inclined to view the Finnish crisis as structural by nature, and that is why the policy responses also emphasised structural reforms instead of more traditional Keynesian bridge-building over the troubled times – a view which got support from the OECD.

TABLE 2. Fiscal balance in the crisis, percent of GDP

	Surplus in boom 1987-90 (1)	Surplus in bust 1993-95 (2)	Surplus in year 2000, after the recovery (3)	Change from boom to bust (2)-(1)	Change from bust to 2000 (3)-(2)
Finland	6.3	-7.9	7.0	-14.2	+14.9
Sweden	5.4	-12.3	3.4	-17.7	+15.7
EU	-2.5	-6.5	0.3	-4.0	+6.8
USA	-4.1	-4.7	1.7	-0.6	+6.4

Source: Author's own calculations based on data of OECD Economic Outlook (2000).

During the years of economic crisis Finland underwent a period of exceptional fiscal belt-tightening. After the recession years, however, the stance of fiscal policy can be viewed neutral or even slightly expansionary in spite of the fact that the fiscal balance has been enormously improving at the same time. This assessment rests mainly on the facts that since 1995 there have been significant reductions in the income tax rates and the public demand has increased. In fact, in the 1990s the fiscal policies in Finland have been rather pro-cyclical accentuating upturns and downturns of the economy.

A dual income tax reform was introduced in Finland in 1993. As a result, new flat tax of 25 percent for profits and capital income was introduced. The change was partly compensated by raising other taxes, and as a result, labour incomes and private consumption were more heavily taxed than before. In order to improve the fiscal balance the government raised labour taxes steeply during the recession years so that the total tax wedge increased by 6.5 percentage points. After the recession an opposite policy was adopted and the Finnish employment strategy has largely rested on attempts to lower the tax wedge. These gradual moves have lowered the wedge by 4.3 percentage points in 1996-2001.

TABLE 3. A qualitative assessment of major measures of discretionary fiscal policy

years	expenditures	tax revenues	overall policy stance
1990-1991	expansion	reduction in income tax rates	expansionary
1992-1995	cuts	steep rise in labour taxes, a cut in marginal corporate taxes	tight
1996-1999	restraint	labour tax reductions	neutral
2000-2003	expansion	labour tax reductions	expansionary

Table 3 summarizes the main fiscal reforms and policy changes in the 1990s in qualitative terms. In the beginning of the crisis in 1990-91 there was an expansionary period with rising spending and tax cuts. That was followed by a long period of fiscal consolidation. After 1996 the spending cuts were accompanied by gradual reductions in labour taxation, which made the overall fiscal stance neutral. After 2000 there has been a new expansionary (and contra-cyclical) phase.

Another significant fiscal reform was made in 1997 when the system of taxes, benefits and incomes-related daycare fees was reformed so that the effective marginal tax rates of low-income workers and unemployed would decrease. The idea was to improve the incentives to accept low-wage job offers. In practise this policy led to targeted tax cuts to low-wage workers and to freezing of many income support benefits so that their relative value started to decrease.

On expenditure side there were outright cuts in public investment and public service provision (and in the number of public sector employees) in 1992-95. After that the public demand has gradually recovered towards its old trend. Real value of most income transfer programs (pensions, unemployment benefits, housing allowances, child benefits, etc.) has been decreased by incomplete adjustments to inflation.

4. How to measure discretionary fiscal policy?

The measurement of the stance of fiscal policy – whether it is expansionary or contractionary, and what are its likely effects – is not straightforward. Perhaps the simplest way to assess the discretionary fiscal policy would be to use the OECD estimates of structural fiscal surpluses or deficits. However, those estimates are based on time-dependent estimates of potential output, and one can see that the OECD estimates of output gaps and structural deficits have not been stable.

In what follows we have adopted the following procedure⁶. Assume for simplicity that the government receipts consist only of tax revenues, which are collected by taxing wages, consumption and capital incomes (profits and capital gains):

$$(1) \quad Taxrevenue = (t + s)WL + t_c C + t_k \Pi ,$$

⁶ This approach is based on methodology proposed by Braconier and Holden (1999).

where t =income tax rate, s =payroll tax rate, WL =aggregate wage bill, t_c =average effective consumption tax rate, C =aggregate private consumption, t_K = capital income tax rate, and Π = aggregate capital incomes. The ratio of tax revenues to GDP is given by

$$(2) \quad \text{Gross tax rate} = \text{Tax revenue}/\text{GDP} = (t + s)\omega + t_c c + t_K \pi,$$

Where $\omega = WL/GDP$ is the labour share of income, and c and π are the relative GDP shares of private consumption and capital incomes. Taxation is neutral if the tax rates are unchanged. However, that is not equivalent with constant gross tax rate. Tax revenues can vary as share of GDP even with constant tax rates whenever the relative shares of labour incomes, capital incomes and private consumption change. It follows also that the gross tax rate can remain constant even when the actual tax rates are increased if their respective tax bases decrease at the same time.

The other side of fiscal balance depends on government expenditures. Let us divide them into non-cyclical public expenditure G (which may consist of public consumption, public investments and income transfers which are independent of employment fluctuations), unemployment-related public spending UB (which consists mainly of unemployment benefits and ALMP spending), and the interest payments of government debt, rD :

$$(3) \quad \text{Expenditure} = G + UB + rD.$$

A fiscally neutral time-path of public expenditure can be defined so that the non-cyclical expenditure G is a constant share of trend-GDP. If that is the case, then neutral policy is in long run equivalent with constant G/GDP ratio. Combining the revenue and expenditure sides yields the fiscal balance equation:

$$(4) \quad \text{Fiscal balance}/\text{GDP} = (t + s)WL + t_c C + t_K \Pi - G - UB - rD.$$

In what follows we focus on discretionary changes in labour tax wedge and non-cyclical public spending. These have been the most important fiscal policy instruments used in Finland in the 1990s. The actual changes in fiscal balance have been very large, but they have mostly been caused by non-discretionary factors, which we call simply cyclical. They include declining relative shares of labour income and private consumption, rise and fall in unemployment-related spending and in interest payments, and a spectacular rise of profits and capital gains in the latter half of the 1990s. When assessing the non-cyclical public spending we report both absolute changes and the changes in relative expenditure shares (where the expenditures are compared to trend-GDP).

5. Measuring fiscal policy and its growth contribution

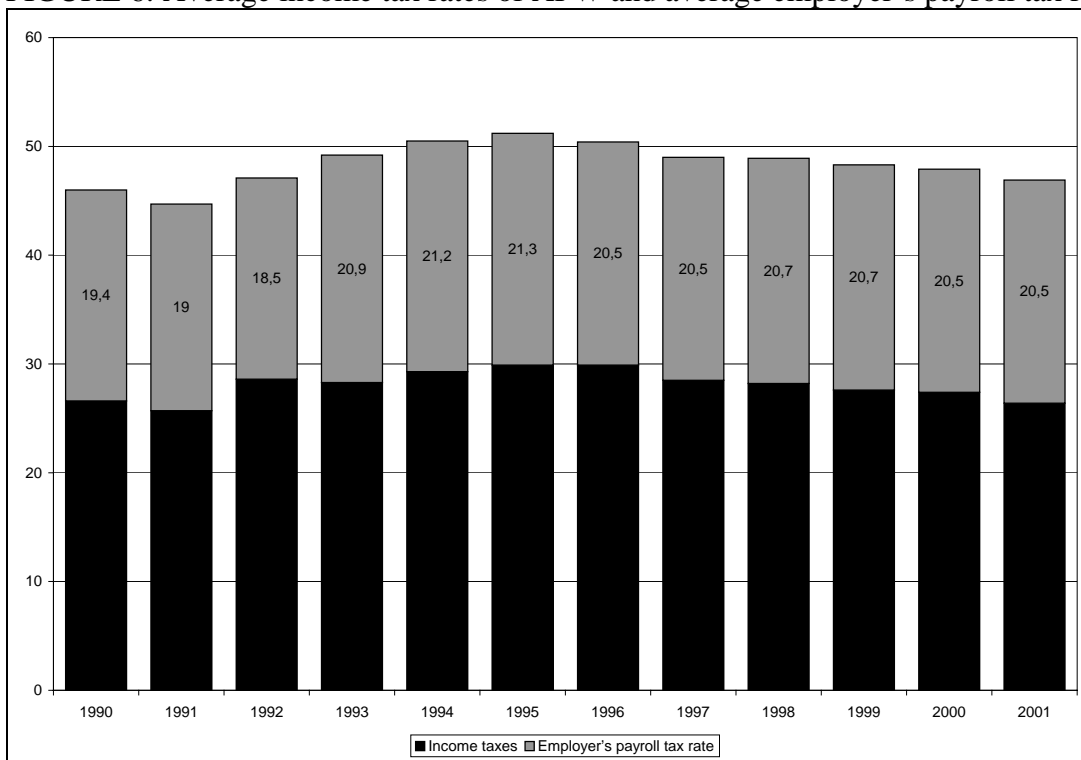
The overall fiscal stance can be evaluated by calculating the evolution of real non-cyclical public expenditure. This is done by subtracting interest payments and unemployment-related expenditures from the total expenditures. The resulting series can be divided by the trend-GDP. It is assumed that under normal circumstances a neutral fiscal policy would be such that the ratio of the non-cyclical expenditures would remain constant to the long-run trend GDP. As one can see from Table 10, the real volume of non-cyclical public expenditure was reduced in absolute in 1993-1995 and started to recover in 1996. In relative terms the expenditure cuts were much deeper, and one can say that no

recovery has taken place in public expenditure. That side of fiscal policy has remained more or less neutral in 1996-2001.

5.1. Labour taxation

A labour tax reduction made in 1991 was followed by a more than a decade of pro-cyclical tax policy. Labour taxes (workers' average and marginal income tax rates, and employees' and employers' social security contributions or payroll taxes) were increased steeply in the midst of recession in 1992-95. After that, when the economy started to recover, reductions in labour taxation were started again, and by 2003 the 1991 level was achieved.

FIGURE 6: Average income tax rates of APW and average employer's payroll tax rate, 1990-2001



Source: VATT

Table 4 summarizes the cumulative changes and turning points in income tax and payroll tax rates of average production worker (AWP), and the average tax wedge (total taxes as a percent of total labour cost). The increase in AWP tax wedge was huge between 1991 and 1995, totalling 6½ percentage points. In other words, the tax increases raised the total labour cost by 13 percent ceteris paribus, or in the absence of any wage adjustment. In fact, wages adjusted, and the total labour costs was not increased that much.

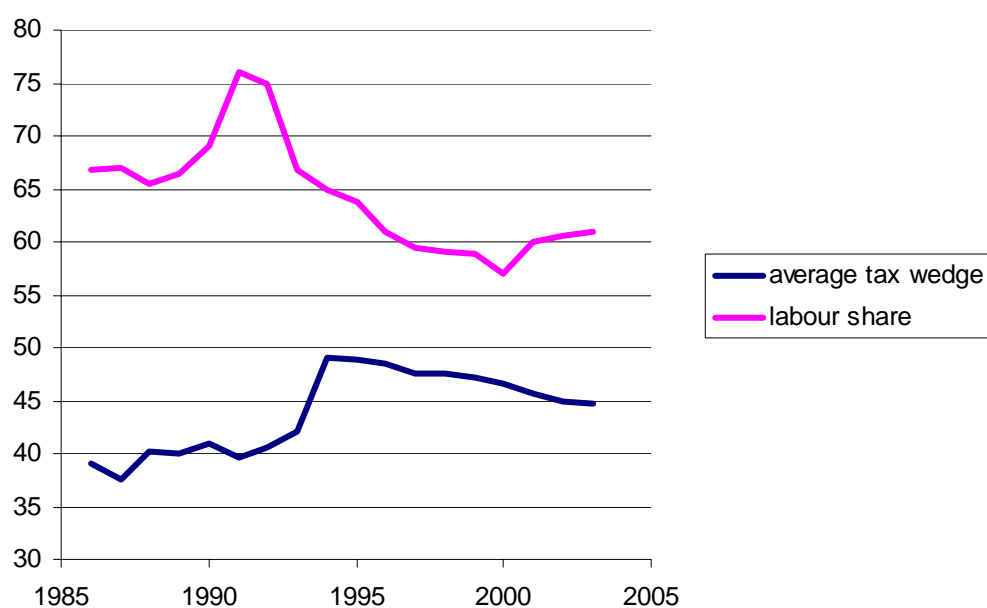
TABLE 4: Tax wedge of an average production worker (APW)

Year	Income taxes	Payroll taxes	Total labour taxes as percent of gross wage	Cumulative change; percentage points
1991	25.7	19.0	44.7	..
1995	29.9	21.3	51.2	+6.5
1998	27.4	20.7	48.1	- 3.1
2001	25.1	20.5	45.6	- 2.5
2004	24.0	20.5	44.5	- 1.1

Figure 7 depicts an average tax wedge on labour measured by using so called OECD method. It shows even steeper increase between 1991 and 1994, from 40 to 49 percent of total labour cost. There indeed was a significant reaction in wage setting. The labour share of national income decreased quickly.

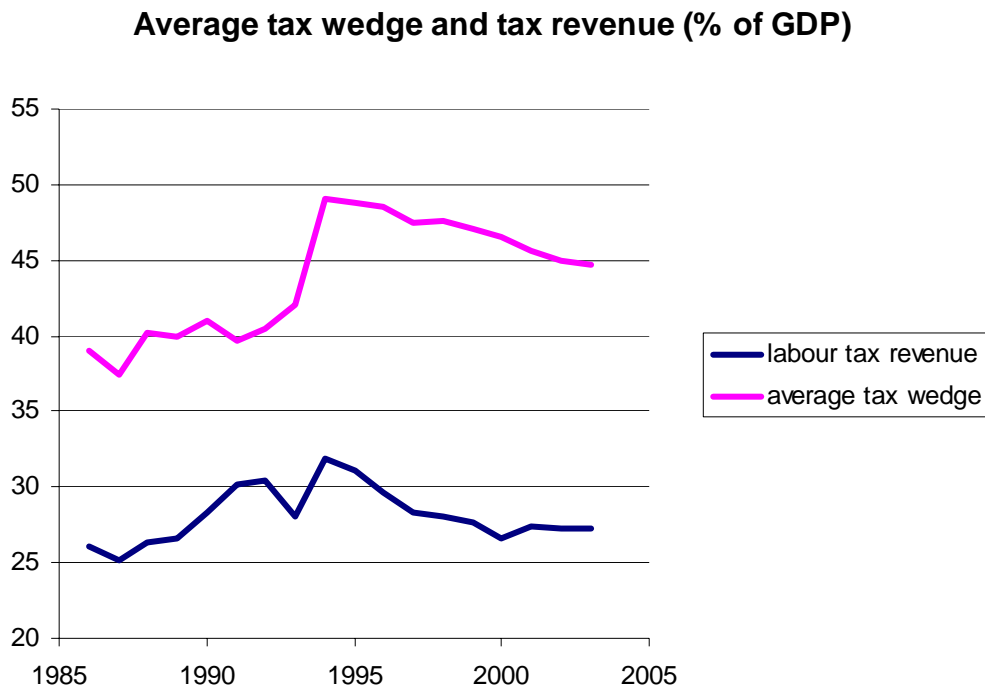
FIGURE 7

Tax wedge and labour share of national income



As a consequence, the tax increases failed to produce very much additional tax revenue. Declining labour demand and lower real wages (and especially lower real product wages – in 1992-94 the real wages lagged behind productivity) decreased the base of labour taxes, and the labour tax revenue as a share of GDP did not reflect the rising tax rates (see Figure 8).

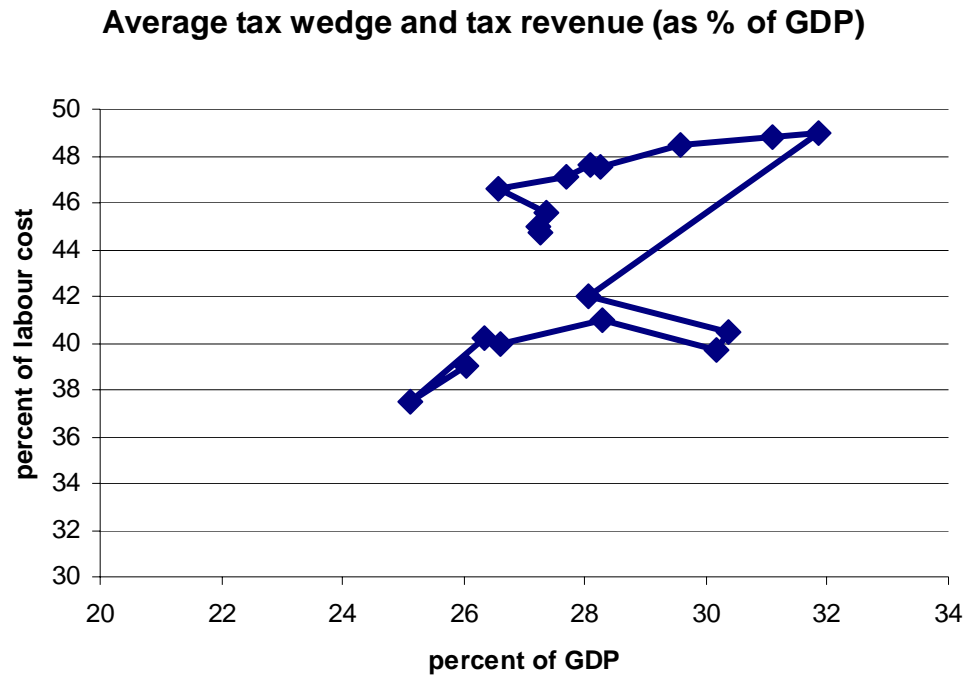
FIGURE 8



The relative labour tax revenue increased in 1989-1991 due to the fact that employment reacted only with a lag to the collapse in aggregate output. Then the massive tax increases in 1992-94 managed to temporarily stabilise the relative level of labour tax revenue. After 1995 the revenue started to decline again due to lower tax rates and due to the fact that real wage increases lagged behind productivity growth.

The labour tax revenues as a share of GDP and the average labour tax wedge are plotted in Figure 9. One can see that the cumulative tax increases of 10 percentage points (equivalent roughly to 6.5 percent of GDP) yielded even a higher increase in tax revenue – in short run. However, after that the relation between the tax rates and the revenue (i.e. the Laffer-curve) changed to a more unfavourable direction.

FIGURE 9



- Labour tax wedge was increased in the midst of recession

TABLE 9: Tax wedge of an average production worker (APW)

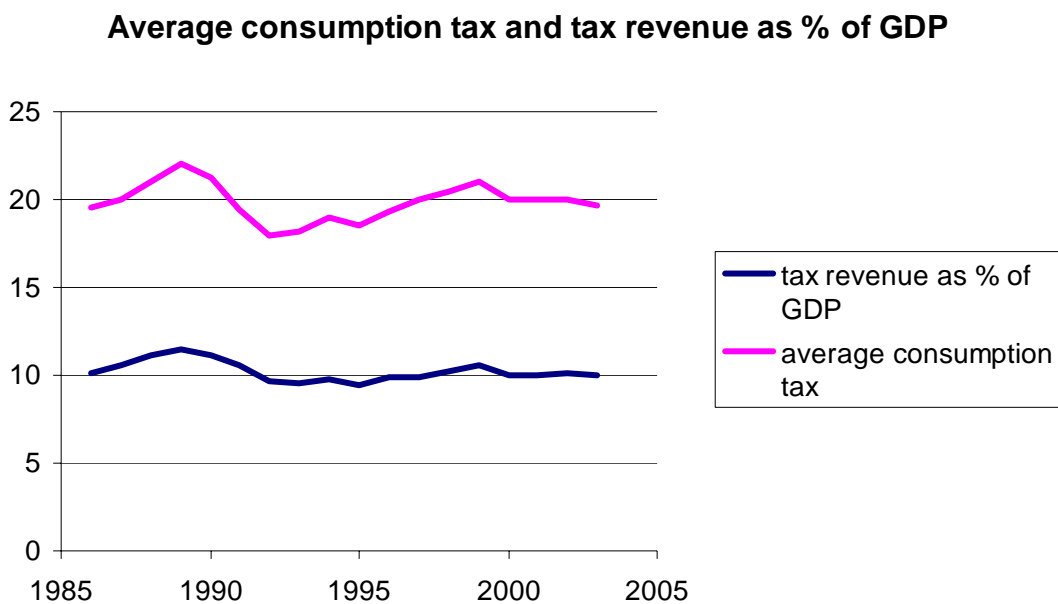
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2004	24.0	20.5	44.5	- 1.1

5.2. Consumption taxes

Another important source of tax revenue is the taxation of private consumption through value-added taxes and excise taxes. The yield of consumption taxes has been rather stable around 10 percent of GDP. There have been cyclical shifts in the effective average rate of consumption taxes (measured as share of taxes of total consumption expenditure, using OECD method). However, the cyclical nature of consumption taxes is not due to deliberate changes in tax rates, but mostly due to changes in sales of new automobiles. Car sales have been cyclical (peaking in 1988-89), and high automobile taxation has caused also large swings in effective tax rates.

Effective tax rate and revenues reflect cyclical changes in consumption patterns; VAT reform in 1994 increased effective tax burden.

FIGURE 10



By combining the yields of labour and consumption taxes it is possible to get a broader measure of tax revenues and the effect of labour tax changes. Higher income taxes reduce disposable income and hence also the tax base of consumption taxes. That can be seen from figure 11. Although the average tax burden caused by labour and consumption taxes increased a lot in 1994, the total tax revenue from these sources started to decline in relative terms.

FIGURE 11

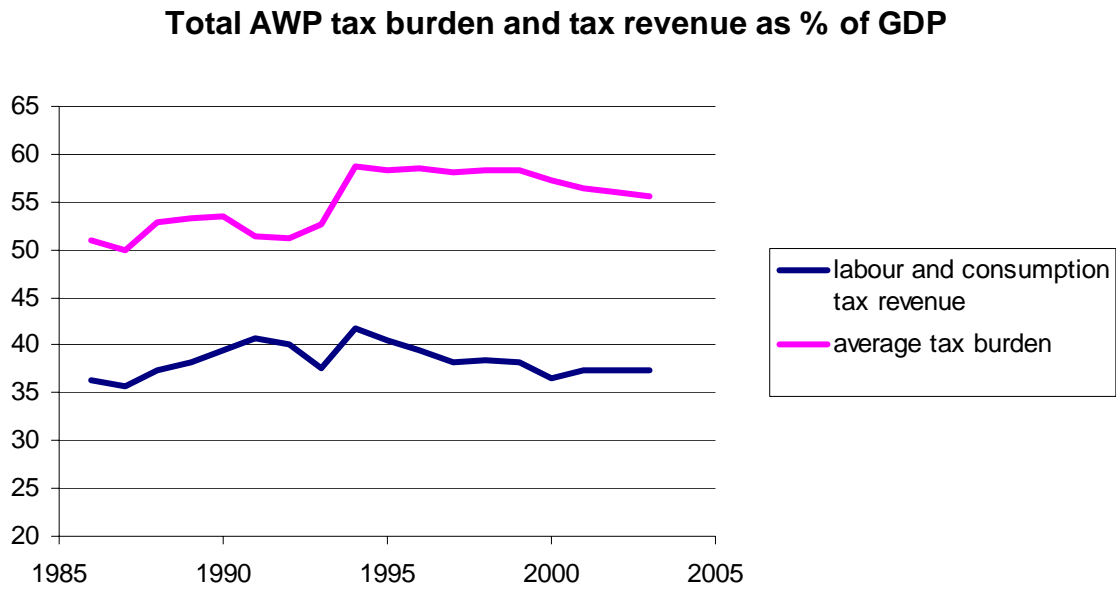
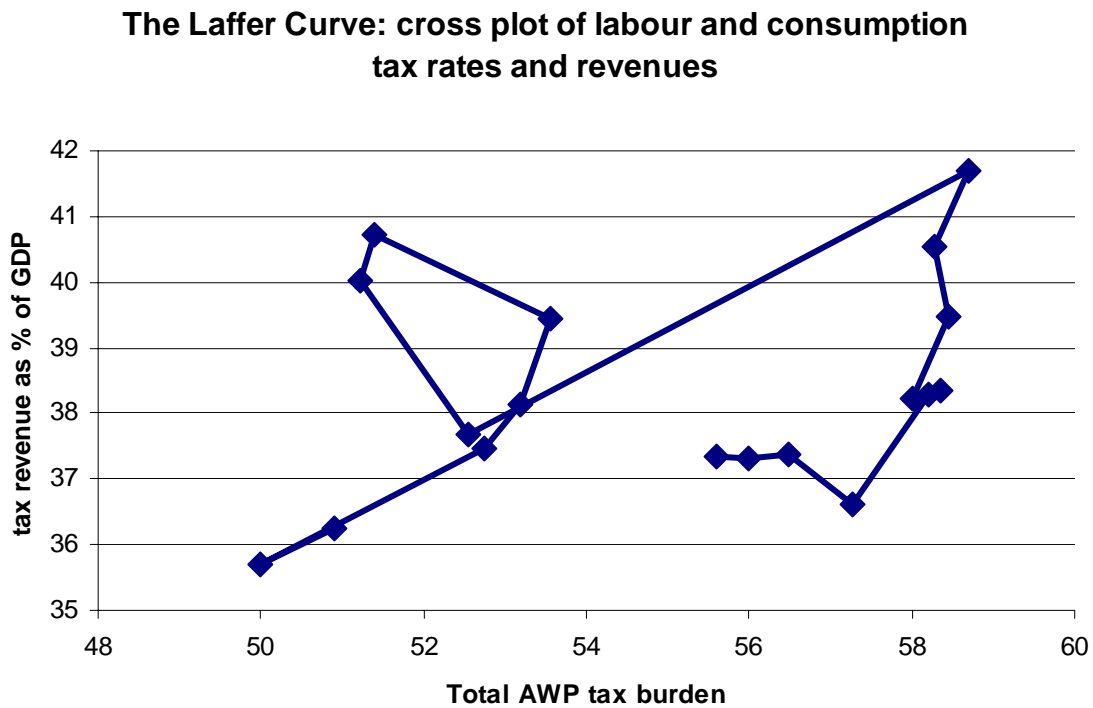


Figure 12 shows a Laffer Curve for the total tax burden of AWP and the tax revenue collected.

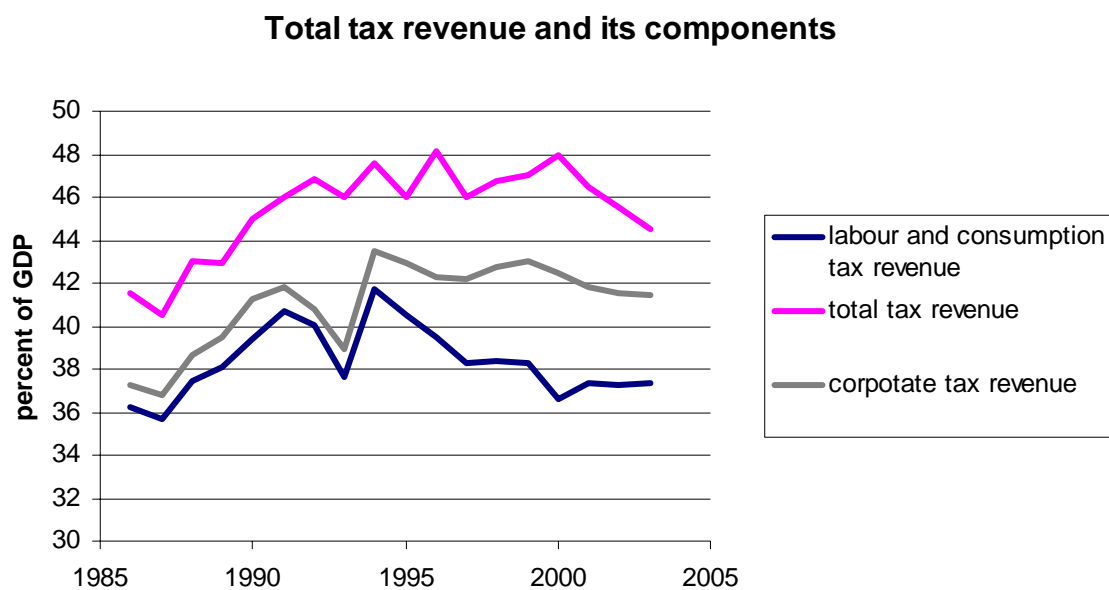
FIGURE 12



Mostly increased tax burden produced higher tax revenues – as percent of GDP. The volume of revenues did not increase much because the level of output and the tax base decreased at the same time. It is interesting to note that in two separate periods – i.e. in 1991 and in 2001-03 a reduced tax burden did not diminish the tax revenue. That was because the labour share of national income increased at the same time.

The total tax revenue as a fraction of GDP or the gross tax rate remained remarkably stable over the 1990s. That is surprising, given the changes in labour share of national income and the changes in tax rates. In fact, the revenue from labour and consumption taxes behaved in a way that was predictable. Higher rates increased the tax revenue, although less than a static calculation would have predicted. Lower rates also lead to lower revenues. This lack of revenues was however fully compensated by higher yield from corporate taxes. Total tax revenue remained stable whilst the labour and consumption tax revenue fluctuated.

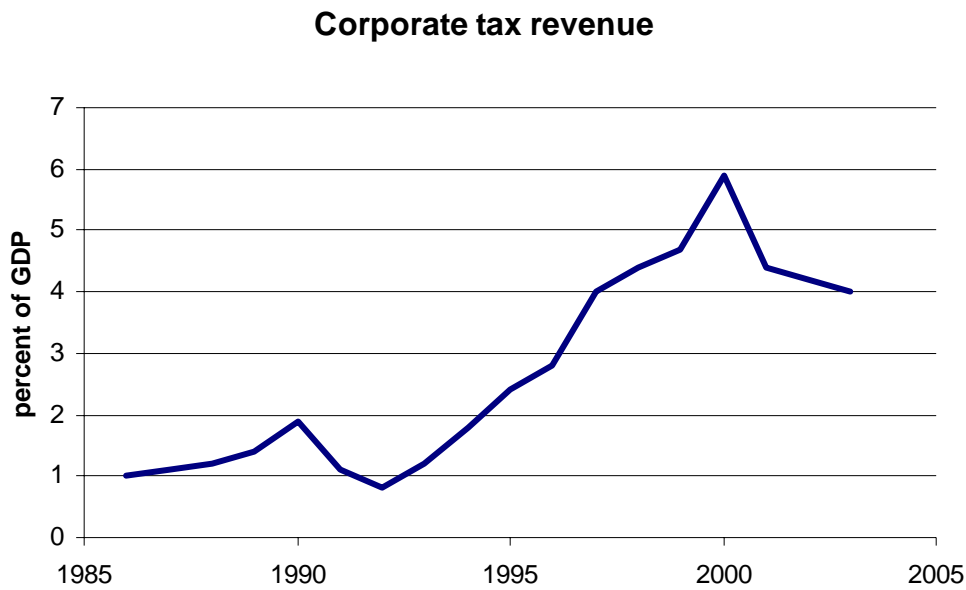
FIGURE 13



5.3. Corporate taxation

Yield of corporate taxation was multiplied after a cut in marginal rates in 1993. There is a surprising Laffer curve of corporate taxation. A radical cut of the marginal tax rate (together with abolishing most of deductions so that the average rate remained almost unchanged) was followed by a spectacular rise (multiplication) in tax revenue.

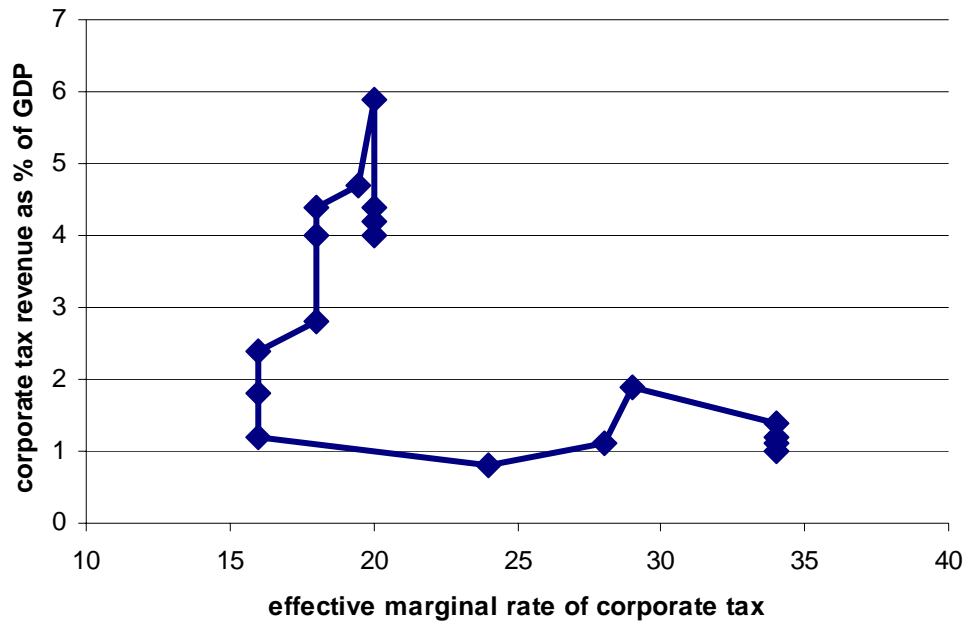
FIGURE 14



- Yield of corporate tax was multiplied after cuts in marginal tax rate

FIGURE 15

Laffer Curve of corporate taxation



5.4. Cyclical and discretionary expenditure

Rise in primary expenditure-GDP ratio largely caused by shrinking GDP and rising costs of unemployment

Volume of public consumption and investment was cut in the midst of the recession in 1992-94

FIGURE 16

Measures of public expenditures

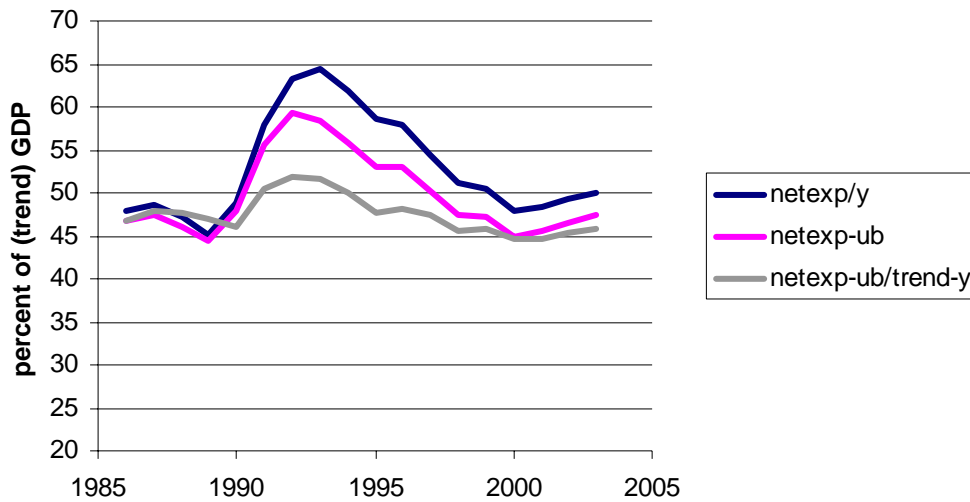
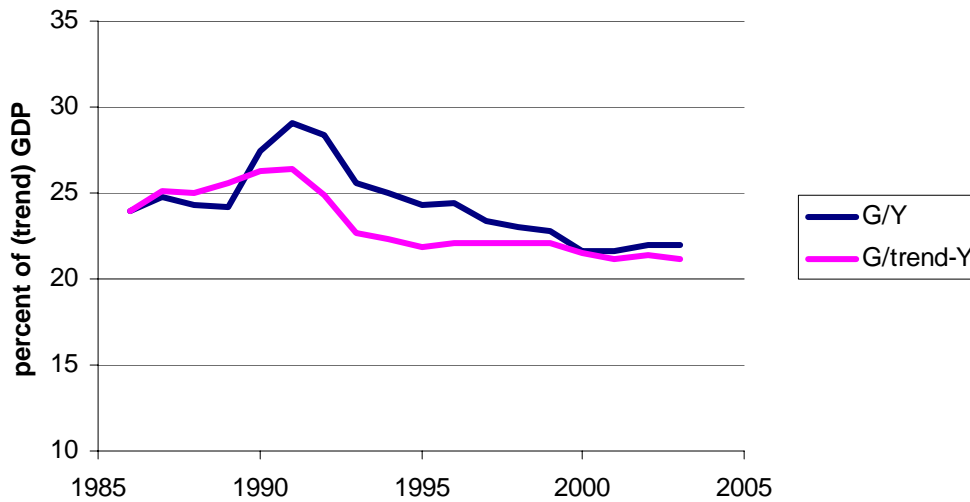


FIGURE 17

Real public consumption expenditure



6. Assessing fiscal policy and its impact

Together with tax cuts made at the same time, the total impact of discretionary fiscal policy can be seen as positive for years 1996-2001. The cumulative growth contribution of fiscal policy changes in that period is about five percent, assuming that the fiscal multiplier was close to one. Thus one can conclude that the post-recession fiscal policy has been expansionary although the actual fiscal surplus has increased hugely at the same time. However, most of the improvement of structural surplus was done already in the recession years 1992-95. As a consequence, there has been lots of room for fiscal balance to improve when output and employment have recovered closer to their potential levels.

The impact of discretionary fiscal policy on employment changes seems to be the following in the light of the figures of Table 5. If we assume that marginally the employment changes are almost equal to output changes, one can calculate the likely employment effects of fiscal policy on the basis of the direct growth contributions of fiscal policy. In the years of recession (i.e., in the period when the unemployment rose), about a quarter or a third of the decrease of employment can be viewed as caused directly (through changes in public demand) or indirectly (through changes in labour taxation) by the tightening of fiscal policy: restrictive fiscal policy had a clearly negative impact on GDP, and one can safely estimate that it decreased labour demand and employment by about 5 percent in years 1991-94. In the years of recovery, the impact of fiscal factors on employment has been positive but clearly smaller. In years 1995-2001 fiscal policy contributed to a 1-2 percent rise in employment.

TABLE 5: Estimate of total cumulative growth contribution of fiscal policy

Years	Change of real primary expenditure in absolute terms, pct of GDP	Change of tax wedge, pct of GDP	Total impact on GDP	Cumulative GDP deviation from trend
1990-1991	+5.0	- 0.5	+5.5	-12.1
1992-1995	- 4.0	+5.0	- 9.0	- 7.7
1996-2000	- 3.5	- 4.5	+1.0	+8.8
2001-2003	+1.0	- 1.0	+2.0	- 2.9

Fiscal policy affected employment through mostly pro-cyclical changes in labour taxation and public demand. There was a period of serious fiscal tightening in 1992-95 in order to maintain the long run sustainability of fiscal balance. After that the fiscal balance improved significantly, largely for cyclical reasons, and this fiscal leeway was used to finance labour tax reductions.

What would have been the impact of neutral fiscal stance on GDP?

Computing alternative path of GDP assuming neutral fiscal policy and a fiscal multiplier of 1.0

FIGURE 18

GDP growth and the growth contribution of discretionary fiscal policy

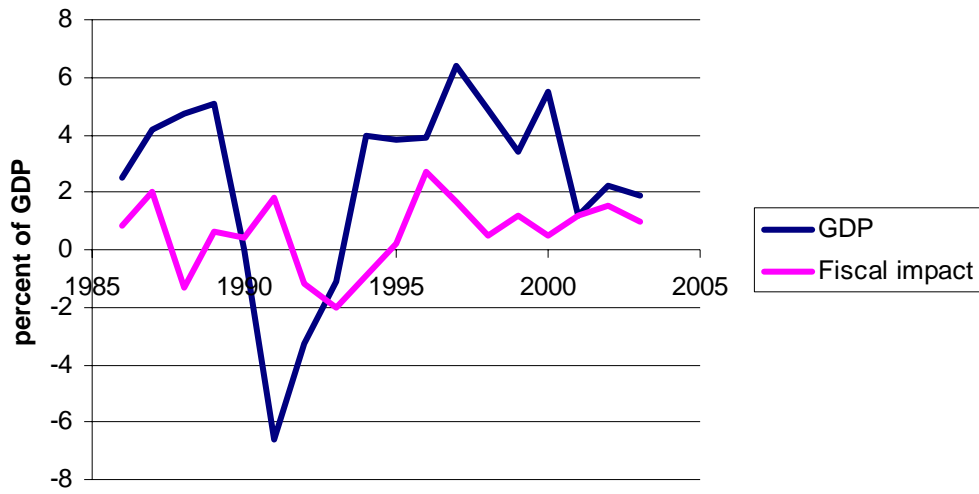
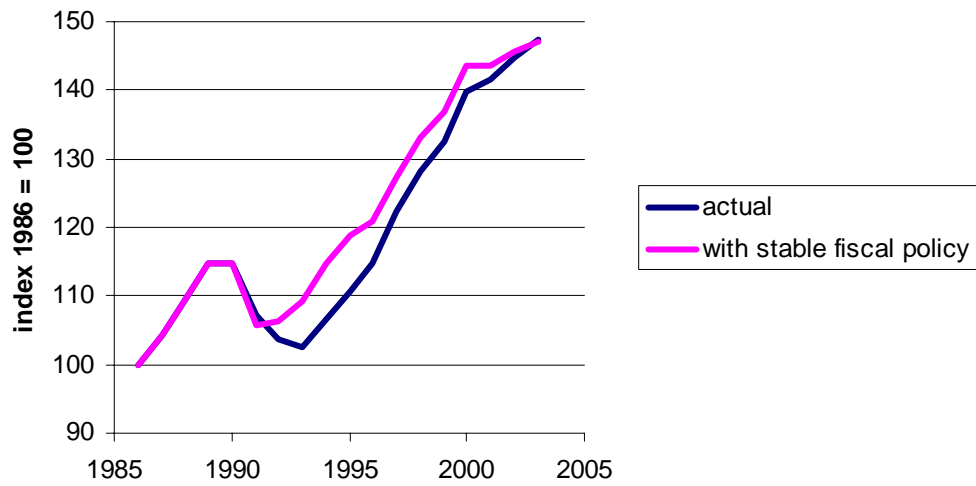


FIGURE 19

Actual GDP and a counter-factual GDP with stable fiscal policy



What would have been the impact of neutral fiscal stance on output gap?

Computing alternative output gap assuming neutral fiscal policy and a fiscal multiplier of 1.0; fiscal tightening responsible for 1/3 of output gap

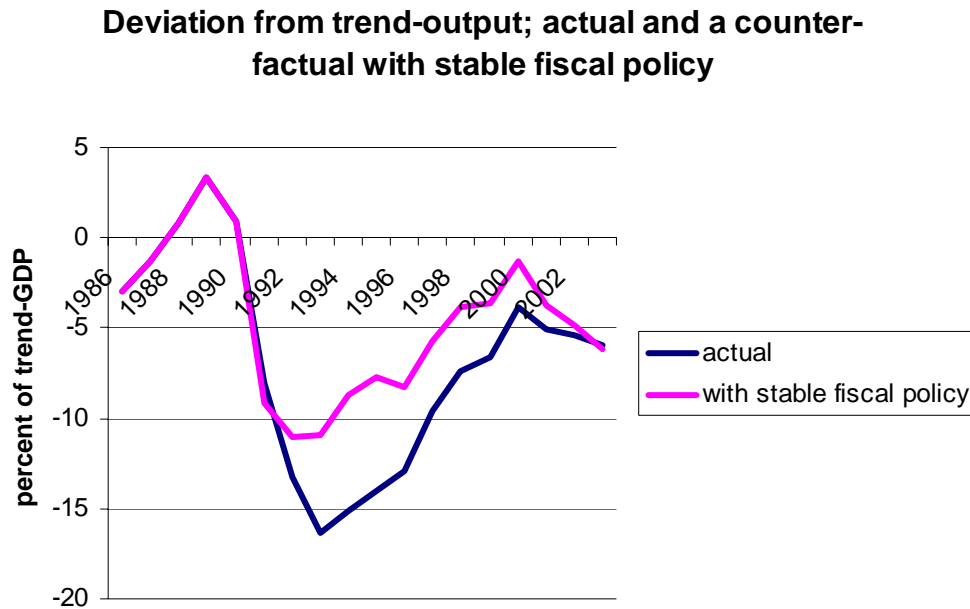
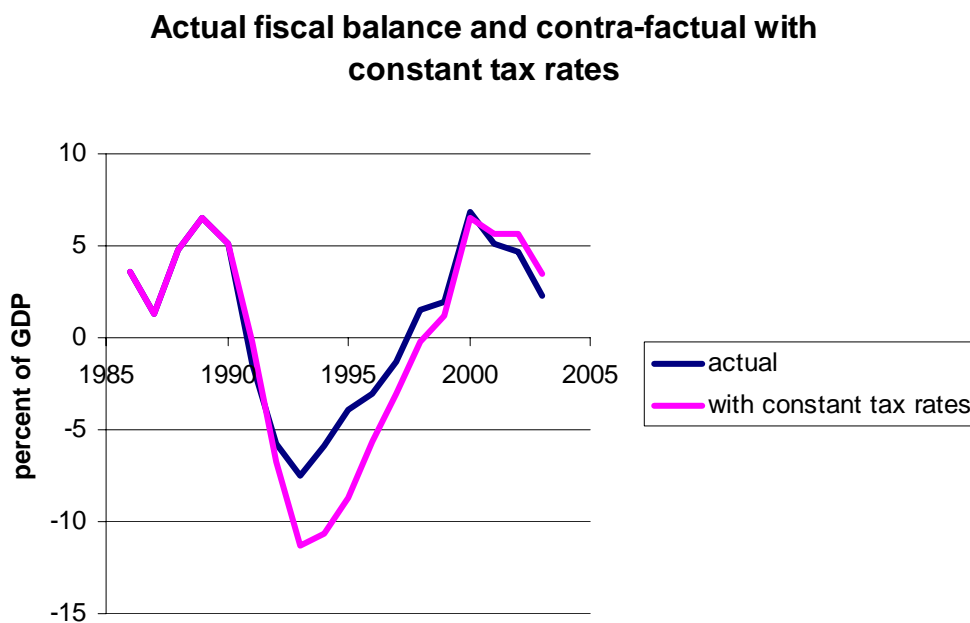
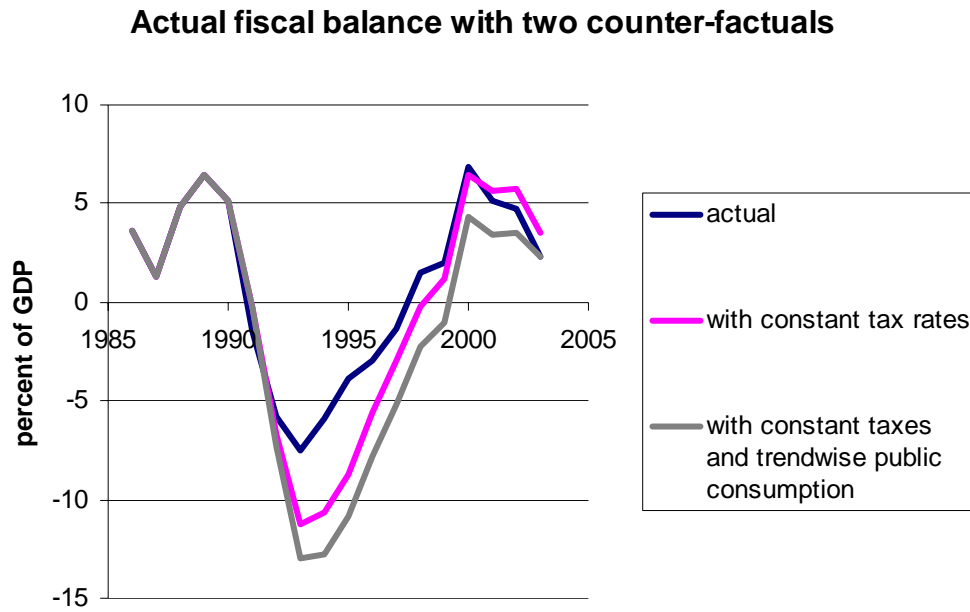


FIGURE 20



Computing counter-factual paths of fiscal balance with no discretionary changes and no feedbacks to GDP

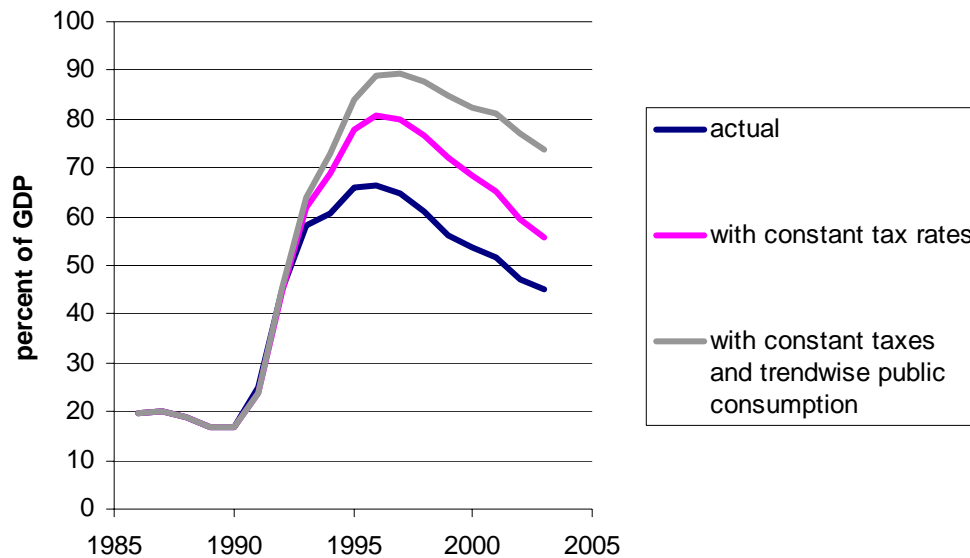
FIGURE 21



Computing counter-factual paths of gross public debt ratio with no discretionary changes and no feedbacks

FIGURE 22

Actual gross public debt with two counter-cyclical paths



7. Concluding remarks

- Deep deficit caused by exceptionally deep recession
- Fiscal consolidation through:
 - discretionary cuts in outlays and hugely increased labour taxes
 - strong recovery through rising exports
- Fiscal tightening probably made the recession deeper and longer but helped Finland to fulfil Maastricht criteria and to achieve financial credibility (at the cost of higher unemployment)

- Fiscal tightening turned out to be temporary: labour tax reductions during recovery
- Steady increase in discretionary expenditures after surplus was achieved
- In spite of fiscal expansion, exceptionally strong fiscal position ... why?
 - dynamic effects through improved employment
 - unexpectedly high corporate tax revenues after reductions in marginal rates

REFERENCES:

Auer, P. (2000): *Employment revival in Europe. Labour market success in Austria, Denmark, Ireland and the Netherlands*. International Labour Office, Geneva.

Ball, L. (1999): Aggregate demand and unemployment. *Brookings Papers on Economic Activity* 1999:2.

Barrell, Ray (1996): German monetary union: a historical counterfactual analysis, *Economic Modelling*, Vol. 13

Blanchard, O. J. - Summers, L. H. (1986): Hysteresis and the European unemployment problem. *NBER Macroeconomics Annual 1986*.

Blanchard, O.J. – Wolfers, J. (2000): The role of shocks and institutions in the rise of European unemployment. *Economic Journal* 110 C.

Bordes, C. - Currie, D. - Söderström, H.T. (1993): *Three assessments of the Finnish economic crisis and economic policy*. Bank of Finland.

Braconier & Holden

Corsetti, G. & Roubini, N. (1996): Budget deficits, public sector solvency and political biases of fiscal policy: A case study of Finland. *Finnish Economic Papers*, 9(1)

Fitoussi, J.-P. – Jestaz, P. – Phelps, E.M. – Zoega, G. (2000): Roots of recent recoveries: labor market reforms or private sector forces?, *Brookings Papers of Economic Activity*, 2000:1.

Giavazzi, F. & Pagano, M. (1995): Non-Keynesian effects of sharp fiscal policy changes: International evidence and the Swedish experience, *Swedish Economic Policy Review*, 2.

Hietala & Lyytikäinen (2003)

Honkapohja, S.& Koskela, E. (1999): Finland's depression: a tale of bad luck and bad policies. *Economic Policy*, 29.

Ilmakunnas (1999)

Jonung, L. - Stymne, J. - Söderström, H.T. (1996): Depression in the North. Boom and bust in Sweden and Finland, 1985-1993. *Finnish Economic Papers* 9(1).

Kautto, M. – Fritzell, J. – Hvinden, B. – Kvist, J. – Uusitalo, H. (2001, eds.): *Nordic welfare states in the European context*. Routledge.

Kiander, J. – Kilponen, J. – Vilmunen, J. (2001): Taxes, growth and unemployment in the OECD countries – does collective bargaining matter? Government Institute for Economic Research, VATT Discussion Paper No. 235.

Kiander, J. & Pehkonen, J. (1999): Finnish unemployment: observations and conjectures. *Finnish Economic Papers*, 12(2).

Kiander, J. and Vartia, P. (1996), "The Great Depression of the 1990s in Finland", *Finnish Economic Papers*, 9(1), 72-88.

King, M. (1994): Debt deflation, theory and evidence. *European Economic Review* 38.

Lindbeck, A. (1997): The Swedish experiment. *Journal of Economic Literature*, 35(3).

Lindbeck, A. et al. (1995): *Turning Sweden around*. MIT Press.

OECD

Summers, L. – Gruber, J. – Vergara, R. (1993): Taxation and the structure of labor markets, *Quarterly Journal of Economics*, 108.

Svensson, Lars E.O. (1994): Fixed exchange rates - what have we learned? *European Economic Review*

Wolfson, M. (1996): Irving Fisher's debt-deflation theory: its relevance to current conditions, *Cambridge Journal of Economics*