

Kiander, Jaakko; Vartia, Pentti

**Working Paper**

## The Great Deperession of the 199s in Finland

ETLA Discussion Papers, No. 526

**Provided in Cooperation with:**

The Research Institute of the Finnish Economy (ETLA), Helsinki

*Suggested Citation:* Kiander, Jaakko; Vartia, Pentti (1994) : The Great Deperession of the 199s in Finland, ETLA Discussion Papers, No. 526, The Research Institute of the Finnish Economy (ETLA), Helsinki

This Version is available at:

<https://hdl.handle.net/10419/187143>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

## **Keskusteluaiheita - Discussion papers**

No. 526

Jaakko Kiander - Pentti Vartia

**THE GREAT DEPRESSION  
OF THE 1990S IN FINLAND**



**KIANDER, Jaakko - VARTIA, Pentti, THE GREAT DEPRESSION OF THE 1990S IN FINLAND.** Helsinki: ETLA, Elinkeinoelämän Tutkimuslaitos, The Research Institute of the Finnish Economy, 1994. 31 p. (Keskusteluaiheita, Discussion Papers, ISSN 0781-6847; no. 526).

**ABSTRACT:** The beginning of the 1990 s has witnessed the collapse of the Eastern European economies and a severe recession in some Western European countries. However, in most countries the economic difficulties have been milder than those experienced during the Great Depression of the 1930s. Finland is an exception of this rule. In Finland the current recession - if measured by output losses - has been clearly worse than the previous one 60 years ago. Yet Finland is not the only Western country where some of the current developments resemble those of the 1930s. For example, also the other Nordic countries and the United Kingdom have experienced more or less severe debt deflation. All the Nordic countries also experienced a banking crisis.

In this paper we discuss the relative role of foreign and domestic shocks. Was the economic policy conducted during the recession the right one? Was the crisis unavoidable after the liberalization of international capital movements? We also further review the actual developments and the economic policy discussion during the recent depression.

**KEY WORDS:** Depression, Debt Deflation

**KIANDER, Jaakko - VARTIA, Pentti, THE GREAT DEPRESSION OF THE 1990S IN FINLAND.** Helsinki: ETLA, Elinkeinoelämän Tutkimuslaitos, The Research Institute of the Finnish Economy, 1994. 31 s. (Keskusteluaiheita, Discussion Papers, ISSN 0781-6847; no. 526).

**TIIVISTELMÄ:** Itä-Euroopan taloudet sortuivat 1990-luvun alussa ja myös jotkut Länsi-Euroopan maat ovat kokeneet suurimmat tuotantomenetykset sitten sotienvälisen ajan. Useimmissa läntisissä maissa vaikeudet ovat kuitenkin olleet pienemmät kuin 1930-luvun lamassa.

Suomi on kokenut viime vuosina suuren laman, jota voitaisiin kutsua toiseksi suureksi lamaksi. Se muistuttaa monella tavalla 30-luvun ensimmäistä suurta lamaa. Osa Suomen vaikeuksista johtuu erityistekijöistä, esimerkiksi Neuvostoliiton kaupan supistumisesta. Suomi ei kuitenkaan ole ainut maa, jossa nykyinen taantuma muistuttaa 1930-luvun lamaa. Esimerkiksi muissa Pohjoismaissa ja Isossa-Britanniassa on koettu samantapaisia vaikeuksia ylivelkaantumisen ja sitä seuranneen velkadeflaation seurauksena. Laman taloudelliset ja sosiaaliset vaikutukset ovat niin suuria, että aihe tulee lähivuosina olemaan tärkeä tutkimuskohde.

Tutkimuksessa vertaillaan 1930- ja 1990-luvun lamoja, tarkastellaan laman aiheuttaneita kotimaisia ja ulkomaisia tekijöitä, pohditaan talouspolitiikan mahdollisuuksia laman torjunnassa sekä läpikäydään laman aikana käytyä talouspoliittista keskustelua.

**AVAINSANAT:** Lama, velkadeflaatio



## CONTENTS

<b>1.</b>	<b>Introduction</b>	1
<b>2.</b>	<b>Comparison of the two depressions</b>	2
	2.1. General developments	2
	2.2. The role of external constraint	6
	2.3. Exchange rate regimes and monetary policy	9
	2.4. Fiscal policy	11
	2.5. Fisherian debt deflation	13
	2.6. Labour market adjustment	17
	2.7. Consequences of institutional changes	18
	2.8. Forecasting and great depressions	19
<b>3.</b>	<b>Where do the economists disagree?</b>	20
	3.1. Yrjö Jahansson against the establishment in the 30s	21
	3.2. Public debate of the 1990s	21
<b>4.</b>	<b>Concluding remarks</b>	25
	<b>References</b>	27



## 1. Introduction<sup>1</sup>

During recent years the Eastern European economies have collapsed and some Western European countries have experienced their greatest output losses since the interwar period. The economic difficulties in most countries have nevertheless been less severe than during the Great Depression of the 1930s.

Finland, however, has recently experienced a great depression, the Great Depression II (GD II), that in many ways corresponds to the Great Depression of the 30s (GD I). The Finnish GD II - as measured by output losses - is also deeper than the Finnish GD I. The depression of the 1930s was (like, e.g., in Sweden and in the UK) in Finland rather mild compared to, e.g., the USA and Germany.

Some of Finland's recent difficulties are country-specific: For example, the pre-collapse level of trade with Soviet Union was higher than in other Western European countries. However, Finland is not the only Western European country where the recent recession resembles the interwar depression. For example, the other Nordic countries - with their banking crises and debt deflation - and the UK experienced similar difficulties during the depression of the 1930s. Recently King (1994) has pointed out that the 1990s recession has been deepest in those countries where the pre-recession increase in debt was fast and led to debt problems. In figure 1 we have added Finland to King's data.<sup>2</sup>

The economic and social consequences of the recent Finnish depression are such that it will be an important research area in the years to come. In the following we raise some questions which should be on this research agenda. In section 2 we point to the many similarities of the Great Depression II with the Great Depression of the inter-war period and compare the general developments during the two depressions. In section 2.2. we discuss the role of deficits in the current account and accumulating foreign debt, which in both depressions seriously constrained economic policies. The role of monetary and fiscal policies is discussed in sections 2.3. and 2.4. In section 2.5. we describe the debt and deflation problems which strengthened the external shocks Finland experienced and prolonged the depressions. In this connection we point to special problems of debt deflation in a small open economy. The process may last longer if a large part of the creditors, which should gradually offset the spending cuts of the debtors, live outside the country, i.e., if the country as a whole is overindebted. The devaluations used for reflation of the economy also add to the debt problems of the sheltered sectors, as the foreign debt of small countries is often denominated in foreign currencies. In section 2.6. we discuss the labour market reactions during the two depressions, in section 2.7. the role of institutional changes and in section 2.8. the possibilities to forecast great depressions.

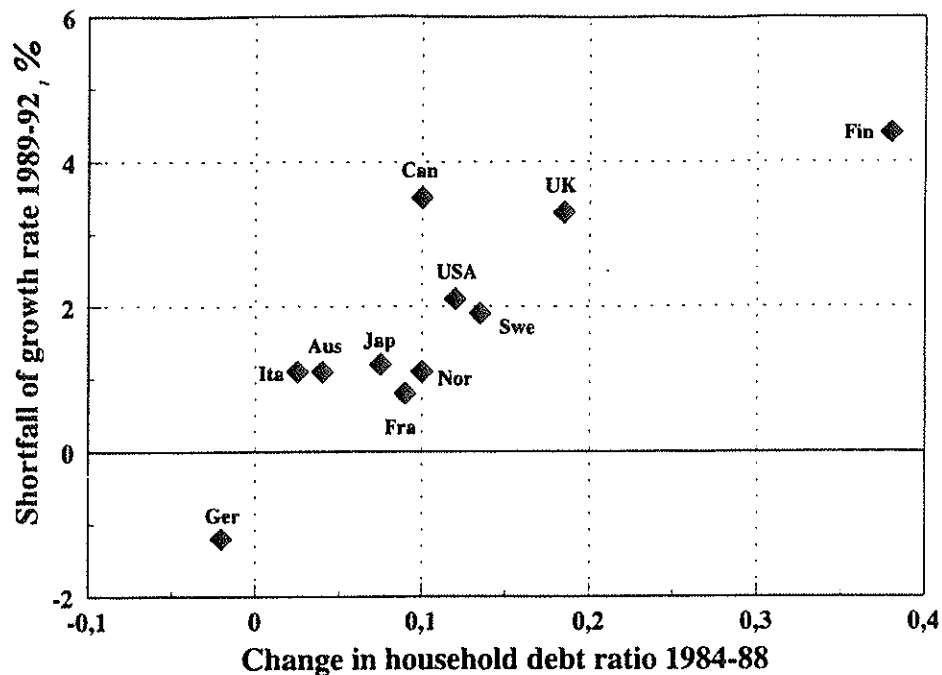
---

<sup>1</sup> This paper was presented at the 40th Anniversary Symposium of the Yrjö Jahnsen Foundation in August 1994, in Sannäs. We are grateful for the comments of Pekka Ahtiala, Bengt Holmström, Seppo Honkapohja and Lars Jonung and other participants in the seminar.

<sup>2</sup> The shortfall of growth is the difference between the actual growth rate between 1989 and 1992 and the trend growth between 1974 and 1989. The household debt ratio is the ratio of household debt to GDP.



Figure 1. Debt and the 1990s recession



In section 3 we deal with the opinions and discussion of economists in both periods. Once again, similarities in the topics are strong. The public debate has focus upon cyclical problems, many related structural issues and the role of economic policies in general. In this connection we wish to take up the role of Yrjö Jahansson, who was the only professional economist questioning the economic policies in the 30s. During the recent depression the public debate has been much more intensive: we have heard disagreeing views on the origin of problems and on the proper policies not only from political parties, but also from universities and research institutes. The fact that the authors have had different views on the nature of problems and on the proper policies, hopefully helps to present a balanced survey of this discussion. In section 4 we give some preliminary conclusions.

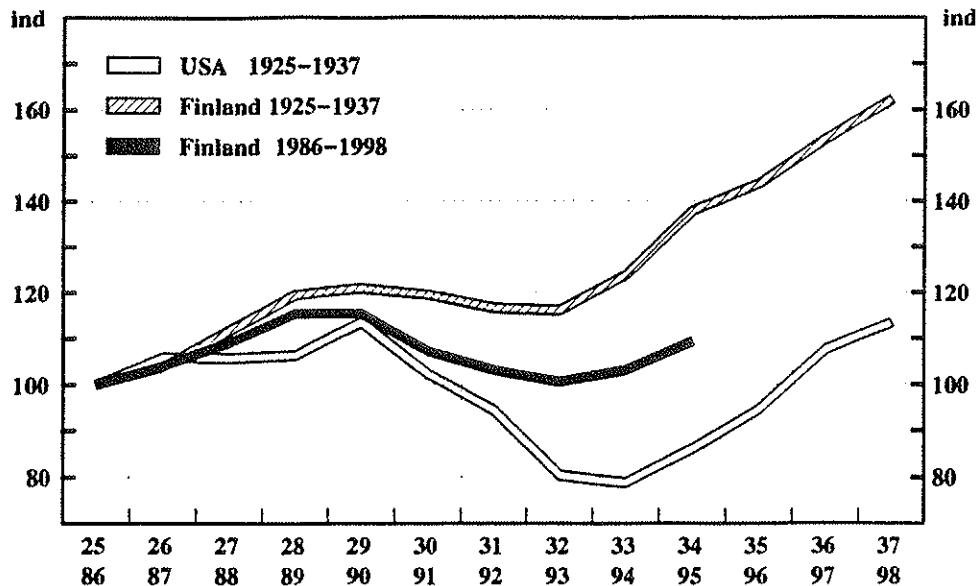
## 2. Comparison of the two depressions

### 2.1. General developments

Both great depressions were preceded by strong booms related to expansive policies, and to deregulation. Credit expansion led not only to growth of domestic demand and of imports, but also to increases in wages and prices, particularly in asset prices. Capital movements were free in both periods, and part of the expansion was financed by private borrowing from abroad, which seemed attractive under fixed exchange rates. These developments, together with an unexpected fall in exports and deterioration in the terms of trade, led to balance of payments problems and higher interest rates. International interest rates were high and because of speculation on the future value of the markka, the Finnish interest rates were even higher. This was followed by a fall in domestic demand, decline in asset prices, problems

with the indebtedness of the firms and households, credit losses and banking crises, severe production losses, and record high unemployment.

**Figure 2. GDP at constant prices, 1925 = 100 and 1986 = 100**



Due to the Gold Standard in the early 1930s and the fixed ECU-parity in the early 1990s, the exchange rate and monetary policies were first inactive and a period of very high real interest rates was experienced. In both cases it was also the collapse of the international monetary framework that finally freed national reflationary policies. Similarities (see table 1.) can further be found in the development of government budgets deficits and particularly in the problems that deflation causes in an open economy where most agents feel over-indebted.

**Table 1. Similarities of GD I and GD II**

Preceding boom: increase in debt and asset prices	1926-28	1987-89
Deregulation of external economic relations	1926	1985-89
Current account deficits <sup>1</sup>	1927-30	1988-92
Fixed exchange rate system that collapsed <sup>2</sup>	1926-31	1982-92
High interest rates	1928-31	1989-92
Export shock	1929-30	1990-91
Debt deflation in an indebted small open economy	1930-34	1990-94
Reflation	1932-	1993-

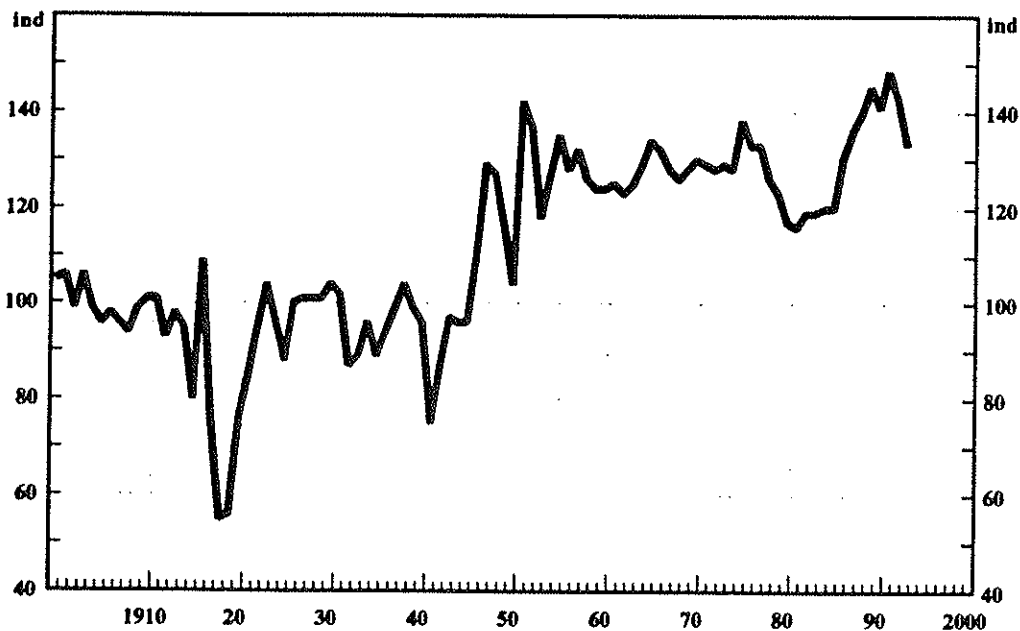
<sup>1</sup> There was a small deficit every year from 1978 but a sharp increase began in 1988.

<sup>2</sup> Fixed exchange rate regime was continued after a 12.6 per cent devaluation in November 1991.

In connection with great shocks the loss of income experienced is typically, almost by definition, considered not to be cyclical but structural. This more or less permanent nature of the problems seriously limits the possibilities to overcome great depressions by economic policies. Particularly fiscal stimulus, even the functioning of automatic stabilizers, is constrained by the mere size of deficits and the debt. In small open economies the problems related to the "twin deficit" - the accumulation of the public and the foreign debts - are closely intertwined. The deteriorated external balance may hinder any expansion of public debt.

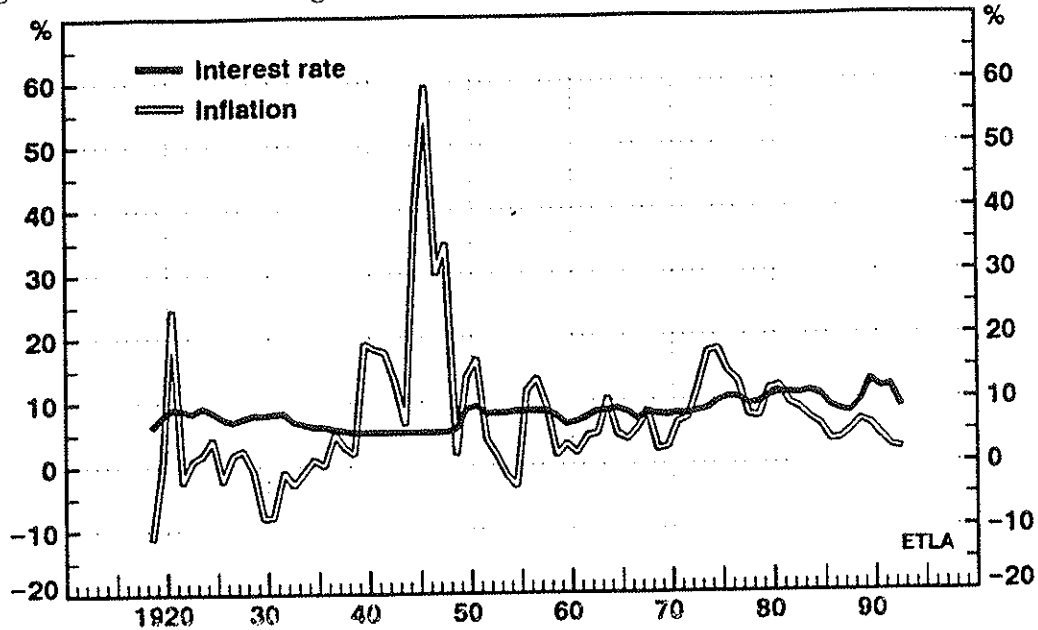
The GD I started in Finland somewhat earlier than in other countries: the booming economy experienced difficulties in exports already in 1928. The international interest rate increases of 1928 and 1929 were followed also in Finland. Monetary policies were further tightened also because of the acute current account problems. Domestic demand, particularly construction and investment declined. Within three years output declined by 4%, which was much less than in other European countries. Unemployment rose, but not to the same level as in other countries. Devaluation and relatively favorable developments in the export markets helped the economy to recover relatively soon. Some sheltered sectors, e.g., construction, banking and agriculture suffered longer than export-oriented manufacturing.<sup>3</sup> Figure 5. shows the volatility of the construction sector: In the 20s its volume more than doubled and then was reduced by half, while in the 80s it first increased by 50 % and then decreased by 50 %.

Figure 3. Terms of trade



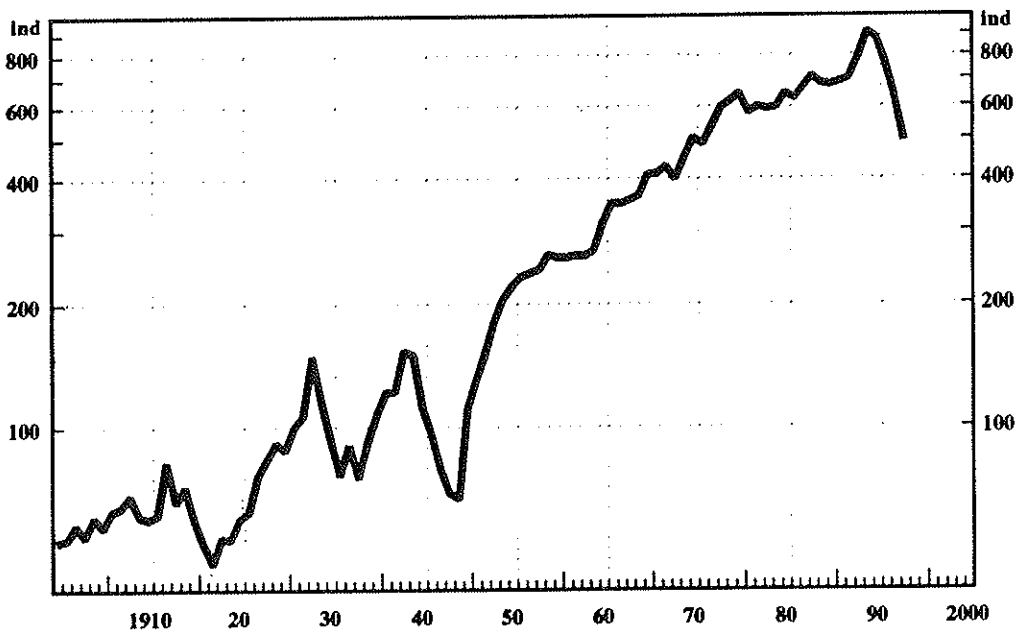
<sup>3</sup> See Hjerpe, Ikonen, Valkama (1993).

Figure 4. Interest on government bonds and inflation

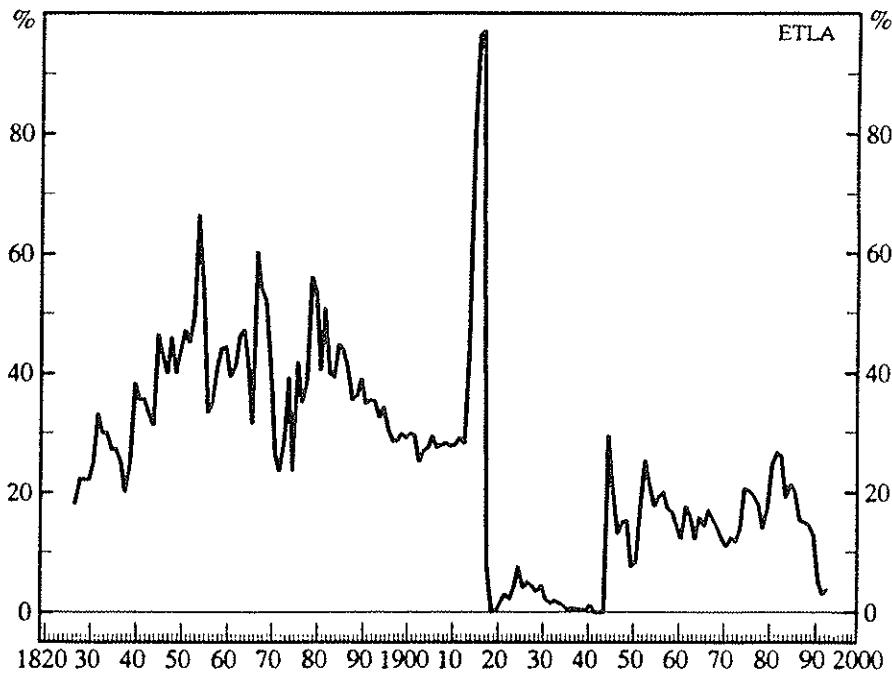


Output losses during the GD II have been much greater than in the GD I. After the rapid growth during the latter half of the 80s, GDP declined by close to 13 % from 1990 to 1993. External shocks were in the aggregate larger, and also the starting point was more difficult. At the end of the 80s the current account deficit had become structural even without any further external shocks. On the top of the problems caused by bad policies came the big surprises: trade with socialist countries, which was expected to decline only gradually, collapsed in 1991, international and domestic interest rates were higher than expected, the terms of trade worsened (this happened also during GD I), export markets in Western Europe suffered from a deeper-than-expected recession, and it proved harder than expected to defend the hard currency line: the short-term interest rate differential between Finland and Germany was during several years 4-5 %.

Figure 5. Volume of housing construction, 1926 = 100



**Figure 6. The share of Russia/Soviet Union in Finnish exports**



The development of unemployment rates in various countries during the recent recession and during the Great Depression confirms our views on the relative severity of the two depressions. The 90s was in Finland much worse than the 30s. The current depression in Finland resembles that of the US in the 30s. Of course, many reservations, particularly on the social and psychological costs of the depressions, have to be made. The safety nets of the welfare system that have been developed in the post-war period, make, e.g., income losses by unemployment smaller. Of course, the costs of the safety nets are also higher.

## 2.2. The role of external constraint

The long-term growth performance of the Finnish economy has been relatively good. During the last hundred years only a few countries (Japan and Taiwan) have had higher growth rates. A basic structural problem in a fast growing economy has been the allocation of resources between the open and sheltered sectors. Ambitious growth targets have led to serious balance of payments crises and to repeated conflicts between the external and internal balance (current account equilibrium vs. full employment). The most severe crises have taken place after the first world war, at the end of the 20s (just before the Great Depression), during the second world war, in connection of the first oil crisis, and again during the present depression.

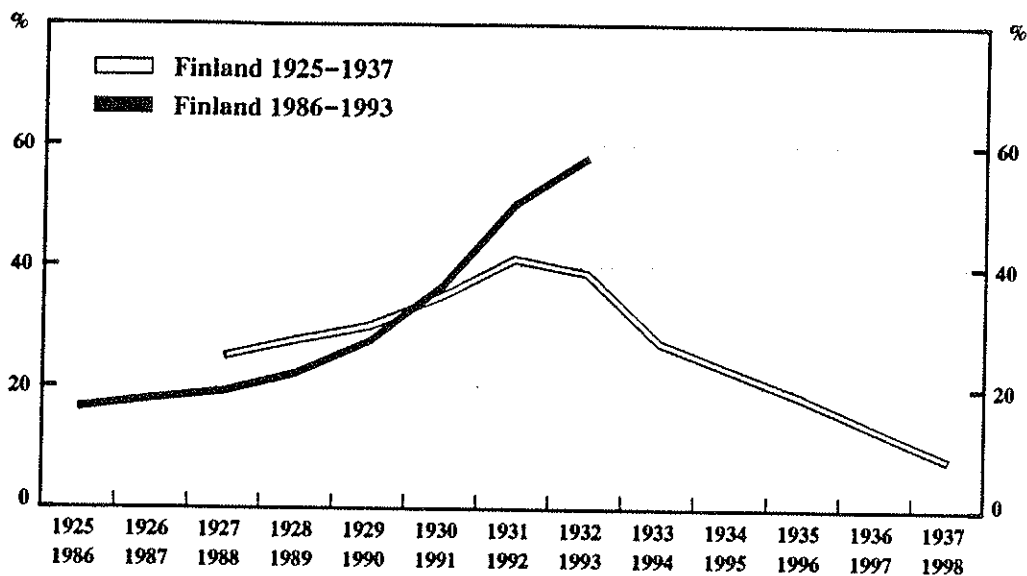
Large current account deficits and a mounting foreign debt acted as a constraint also in connection with both great depressions. During the years preceding the depressions import expenditures exceeded export earnings and the country became indebted already during the "good times". When difficulties in the export markets appeared, there was no easy way out. If one cannot balance expenditures and income in good times, the adjustment needed in bad

times will be bigger and more painful. It will also be the greater, the longer the necessary adjustment is postponed.<sup>4</sup>

More expansionary policies in the beginning of both GD I and GD II aimed to stop the falling domestic demand would have led to increased foreign borrowing (or would have stopped the restoration of the external balance). The constraint posed by the external debt thus led to tighter policies and to higher unemployment than would have been the case with less foreign debt.<sup>5</sup>

The present short-run trade-off between external and internal equilibrium related to more or less expansive fiscal policies (change in public demand) is depicted in figure 8. It shows how radically the position of the choice loci associated with ordinary demand management policies has changed since the end of the 80s. Fiscal stimulus could lead to a decrease in unemployment, but it would also seriously exacerbate the current account. The trade-off line related to fiscal policies is expected gradually to shift upwards to the left because of increased competitiveness and upturn in export markets.

Figure 7. The Finnish net foreign debt



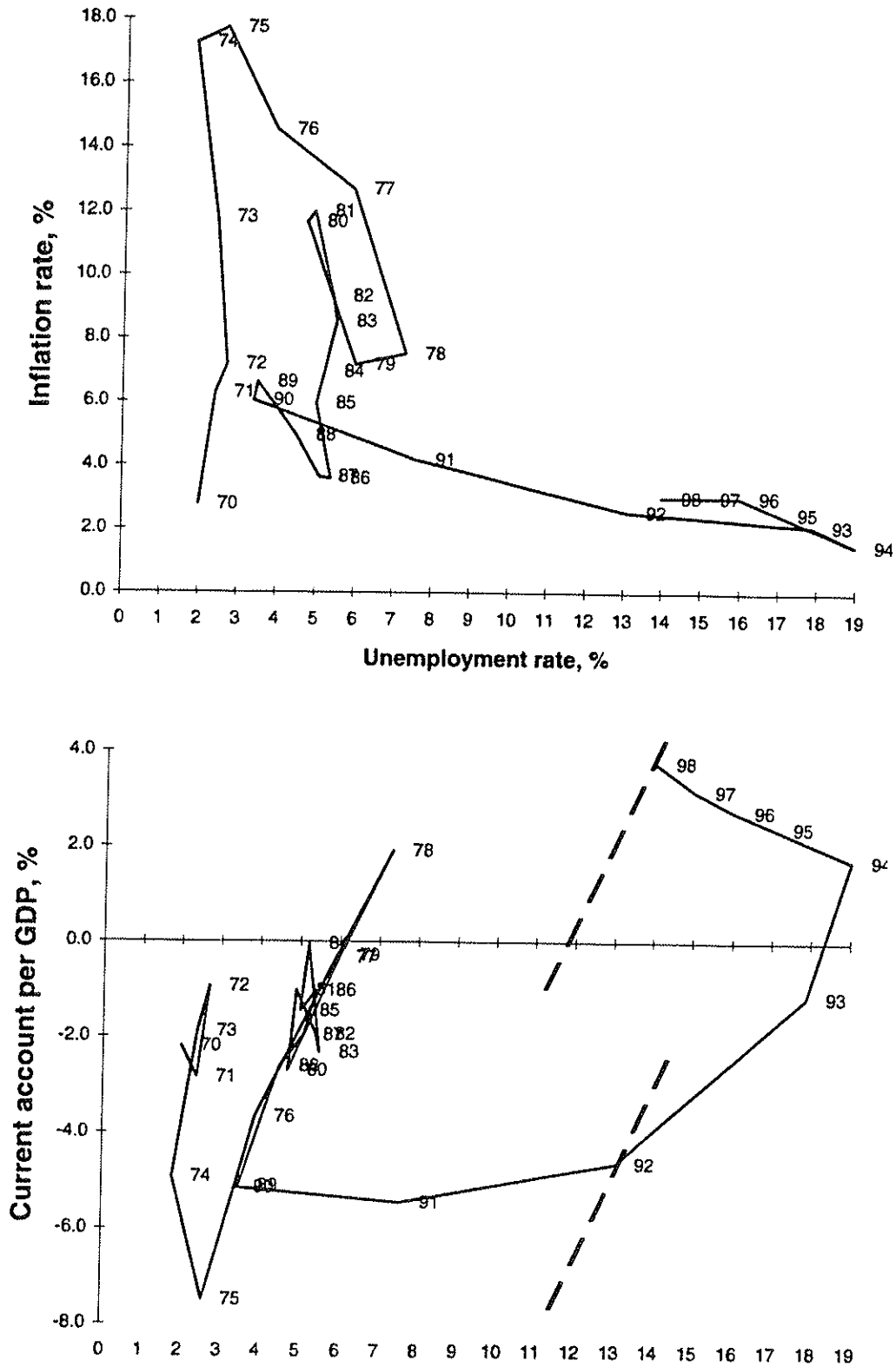
The high level of foreign debt has consequences also for the debt deflation process. When the Finnish debtors are paying in net terms to foreign creditors, this leads to cuts in domestic demand, but not to offsetting spending by the creditors inside the country, which in a closed economy sooner or later helps to stop the downward spiral. Of course, the foreigners may buy Finnish shares and other assets or make direct investments in Finland, but only a small part of

<sup>4</sup> In principle it is possible to avoid the painful adjustment by continuing the borrowing in bad times and promising to pay back when times get better. There is some limit to which such a policy is credible and can be continued. Experience shows that it is extremely difficult to forecast exactly where this limit happens to be.

<sup>5</sup> That the external constraint was also seen to be binding by the policy makers, can be seen in the publications of the Finance Ministry and the Bank of Finland. See also Koivisto (1994). The authors views in this respect differ somewhat, see Kiander (1993), Vartia (1988, 1993).

their increased liquidity is likely to come to Finland. To some extent this has actually happened: the inflow of foreign capital has helped to stabilize the economy (see fig. 14).

**Figure 8. Phillips curve and the trade-off between internal and external equilibrium**



### 2.3. Exchange rate regimes and monetary policy

Since its establishment in 1860, the parity of the Finnish markka, except for some shorter intervals, with other currencies has been more or less fixed. Before WW I the markka was tied to the gold standard. After the war, and after a period of floating and significant inflation, the markka was tied to the new gold parity in 1926. The gold standard was followed and defended until autumn 1931. Finland gave up the gold standard only after Great Britain and other Nordic countries had done so. After a year and half of floating, during which the markka depreciated considerably, it was tied to the sterling.

After WW II Finland joined the Bretton Woods System and after a short period in the early 1970s the markka was fixed against a (trade-weighted) basket of currencies. The inflation rate has during the post WW II period exceeded the average OECD inflation rates. The markka was devalued several times during the second half of the 40s, in 1957, in 1967, three times in 1977-78, and again in 1982. Devaluations offered a way to correct functional income distribution and profitability in the open sector and thus to promote investment and growth. Furthermore, inflation and currency depreciation has not been continuous: there have been long periods when the inflation rate has been very low. Such periods have occurred often also immediately after devaluations, when there has been a lot of idle capacity and unemployment has been high. If one starts from a disequilibrium situation (where the overvaluation of the currency is, say, 10 %) a 10 % devaluation does not necessarily lead to 10 % increase in prevailing domestic prices. It leads to 10 % higher prices than the no-devaluation alternative, but the no-devaluation alternative means 10 % deflation (if we assume no change in the international prices).<sup>6</sup>

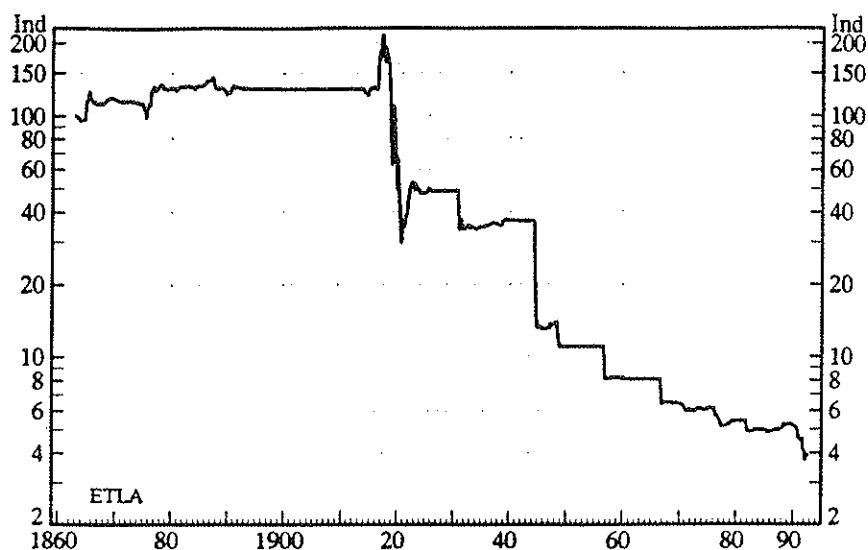
The control of capital movements and the regulated financial system provided the central bank with considerable monetary autonomy up to the early 80s. With the introduction of free capital movements and the discontinuation of credit rationing, things changed radically. These changes should also have led to a re-examination by authorities of the roles of monetary and fiscal policies. Fiscal policies, however, were not tight: budgets were often balanced, but if the budget calculations had been based on a requirement of equilibrium in the current account, the surpluses should have been even higher.

---

<sup>6</sup> See Alho&Vartia (1983). Many of the problems related to exchange rate regime and policies are structural and outside the macro-level wage-price-exchange rate determination process. One fact has been the very divergent price movements in the main export industries, the forest and metal industries. There are many reasons which make currency appreciations more difficult than depreciations. Kiander (1994) presents a model, where both negotiating parties prefer devaluation to deflation. There is one exchange rate, but many export prices, many profitabilities, many income distributions. The exchange rate affects inflation, but also competitiveness. It regulates competition between firms in different sectors in the home country, but also between the domestic firms and foreign firms on the same sector.



Figure 9. External value of the Finnish markka



It is against this background of repeated devaluations and of institutional changes, that the strong support the "strong currency" line becomes understandable. There was a general belief that exchange rate accommodation was gradually built into expectations and this made the continuation of the policy more and more difficult. However, it is very difficult to say how much empirical evidence we have on this: inflation rates have often been very low even after large devaluations. A vast literature on the devaluation cycles and on the harmfulness of devaluations was created.<sup>7</sup> The strong currency approach was also supported by the academic discussion on credibility, monetary policy and rational expectations.

In June 1991 Finland followed the other Nordic countries and made a unilateral commitment to fix the parity between the markka and Ecu. However, already in the fall of the same year, the Bank of Finland had to give up and devalue. Interest rates were high already during the preceding boom as the Bank of Finland tried to dampen the growth and inflation rates. Due to the institutional problems, which we will discuss in section 2.7., the effects of the high interest rates on the demand for credit were small. There was also a lot of political opposition to raising of interest rates. Interest rates were very high in the early phase of the GD II because the exchange rate parity was defended. After the start of the float the Bank of Finland was not actively trying to lower interest rates as it was afraid of exacerbating the depreciation of the markka and inflation. The crisis of the EMS in September 1992 started in Finland, even if Finland was not a member. After losing considerable currency reserves the markka was allowed to float in September the 6th. Italy devalued on the 13th, the pound started to float on the 16th, the lira on the 17th, Spain devalued on the same day and Portugal followed on November 22nd. As described earlier, the fundamentals at that time made Finland the weakest point in the system, and other weak points were attacked after Helsinki had first given up.<sup>8</sup>

<sup>7</sup> See, e.g., Korpinen & Kykkänen (1974), Oksanen (1978), Leppänen (1975), Korkman (1978, 1980).

<sup>8</sup> This view is contrary to the pure speculative model of Eichengreen (1992), where fundamentals do not have a role.

It is an interesting question whether Finland could have let the currency float earlier when the pressure was building up against it.<sup>9</sup> In the hindsight, when we know that many countries have resorted to the float, we can say that there was an ex post wrong belief that the float was, if not impossible, at least infeasible. The main obstacle to allowing the Finnish currency to float was probably the desire to behave as other Western European countries: Finland accepted the EMU-criteria when it applied for the membership in EU in spring 1992. Of course, in addition to the Bank of Finland and the majority of the government ministers, many business leaders and academic economists believed (and some still believe) that the hard currency line was the best for the economy.

#### 2.4. Fiscal policies

During the GD I the stance of monetary policy was tight. The official view emphasized also tight fiscal policies, but the result was somewhat unclear. During GD II overall fiscal policies were much tightened until 1994, regardless of the large budget deficits. However, the central government and especially the municipalities have cut their consumption and investment, while transfer payments have soared. There is some disagreement as to what the actual fiscal policy line has been. Because of the automatic stabilizers the deficits have been large, even if some budget cuts have been made.

Discussion related to allocation of resources to the open and sheltered sectors has typically dealt with the size of the public sector. In recessions the value of public expenditure in relation to the GDP increases almost by definition. If the shocks the economy experiences are considered to be permanent, the share of the public sector may be seen as too high. This topic was discussed during both depressions.

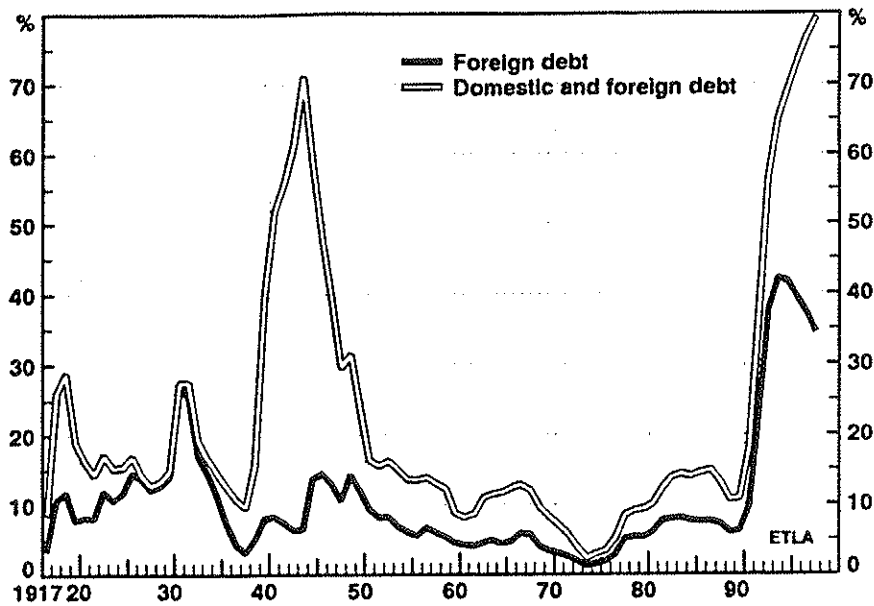
Political rhetoric on the state budgets has not changed much from the 30s to the 90s. During both depressions the official line has emphasized tight policies and demanded further budget cuts. The stance of the actual policies is harder to measure. Despite of cuts in public consumption and investment the budget deficits have increased sharply in 1991-1994. There are three factors which explain most of this development: (i) rapid growth of unemployment benefits; (ii) bank support of about 8 percent of GDP; and (iii) higher interest payments.

Decomposition of the deficit to the cyclical and the structural component is particularly difficult and uncertain when the output gap is large. If the estimation of the Finnish output gap is based on continuation of the past growth trend of 3 %, this would give an output gap of close to 20 %. If we lower the potential output, say, by 10 %, the structural part of the deficit, of course, becomes very large.<sup>10</sup>

---

<sup>9</sup> Actually this was discussed in the Bank of Finland (see Vanhala (1993)).  
<sup>10</sup> See OECD (1994).

Figure 10. Gross debt of the central government in relation to GDP



More important for economic policy decisions than the decomposition of the deficit, is the sustainability of the public debt. After made and planned cuts the outlook is satisfactory: the debt/GDP ratio seems to stabilize under 100 % by the end of the 1990s.

Budget cuts made during the period of rapidly falling output have probably worsened the overall situation, and there has naturally been much discussion of the possibility of a more expansive fiscal policy. However, there are two main risks connected with the use of fiscal policy which have prevented the administration from making a Swedish-type Keynesian experiment<sup>11</sup>: the fear that higher expenditure would (i) prevent the stabilization of the external balance and (ii) increase the interest rates, which might eliminate the positive income effects through crowding out effects. The first risk was dominating in the early phases of the depression, but as the current account has turned positive the second risk is now considered to be more important.

The fact that fiscal policies have allowed huge deficits during several years is due to the very good initial state of public finances: In the end of the 80s Finland was one of the few countries with a negative net debt.<sup>12</sup> Figure 11. shows that the problem is not yet the size of the debt but (as in Sweden) the large deficit. Recently there has been a rise in the long rates, probable due to the large deficits in Sweden and Finland. The Finnish fiscal policies face the same credibility paradox as many other indebted governments: short-run stimulation could be more extensive if the decisions to cut the long-term (structural) level of public expenditure could be credibly made. The problem is that such promises seldom are very assuring in the eyes of the market.

<sup>11</sup> In Sweden the fiscal policy has not been much tightened during the recession of 1991-93. As a result the Swedish budget deficit was the largest in the OECD area, 18 percent of GDP in 1993.

<sup>12</sup> The state has traditionally provided low-rate loans for housing and agriculture. The gross debt of the public sector was around 15 % in 1990. Furthermore, the semi-public Finnish pension system is partly funding.

## 2.5. Fisherian debt deflation

Between the two large recessions of the 30s and the 90s debt deflation was not a problem. In the 80s even the possibility of such a phenomenon was ruled out in the investment calculations, when the general price level and asset prices increased rapidly. During most of the post-war period the real interest rates were low or even negative. The indebtedness of the households was also kept low by legally and institutionally forced credit rationing.

Figure 11. Public debt in the OECD-countries in relation to GDP

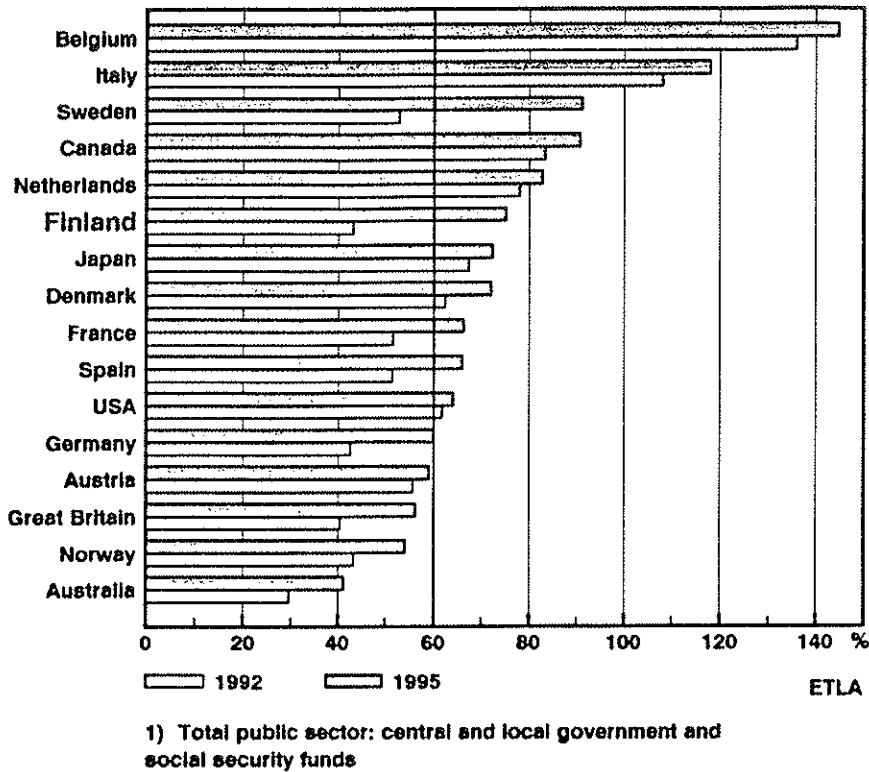
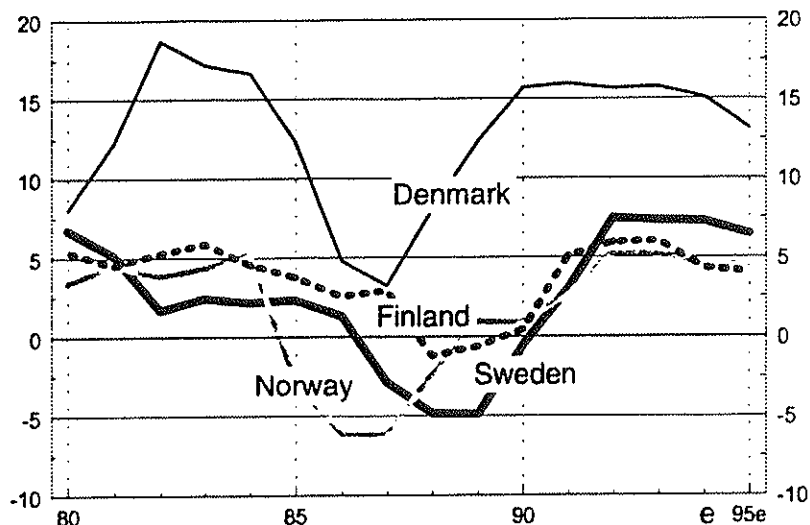


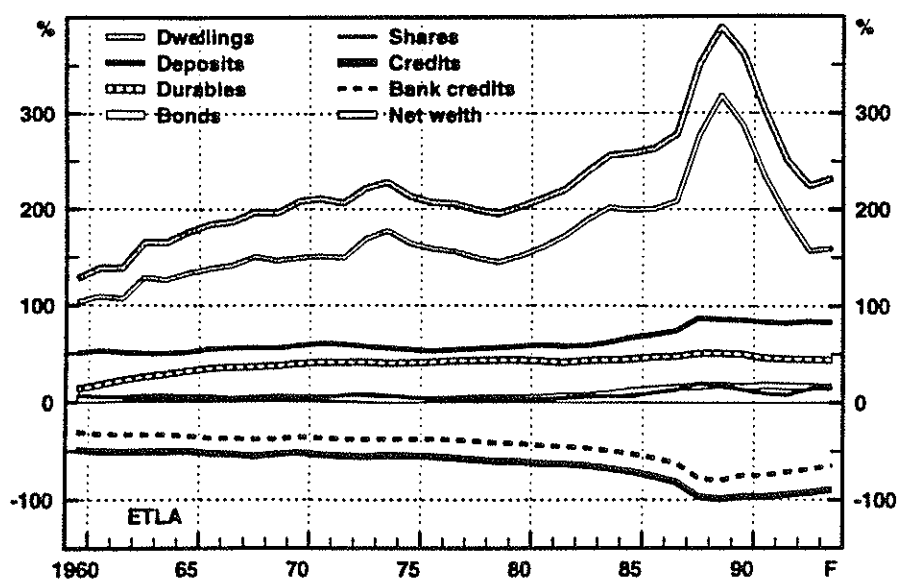
Figure 12. Savings ratio of households in Nordic countries



After the liberalization of the credit markets in the mid-80s the households and firms begin to increase their borrowing rapidly. More or less the same phenomenon took place also in the private sector of Finnish economy both in 1925-29 and 1985-89. Rapid economic growth and an increase in wealth gave a general feeling of optimism and prosperity which encouraged households and firms to further increase their debts. The good prospects and relatively low interest rates made it also rational to do so *ex ante* (in fact, rising asset prices helped borrowers to borrow more and still to keep their debt/wealth ratio constant).<sup>13</sup> This led to a reduction of saving as measured in the national accounts (see figure 13.). Similar trends were experienced in all Nordic countries and UK.<sup>14</sup>

Authorities assured publicly many times that no devaluation would occur, and many borrowers of foreign currencies believed that as well in the 80s as in the 20s. A wide differential between domestic and foreign interest rates and the strong commitment of the Bank of Finland made this option lucrative in the eyes of some small entrepreneurs and bank directors not accustomed to currency risks.<sup>15</sup>

Figure 13. Household assets and debts in relation to disposable income



<sup>13</sup> It is interesting to note that if savings are measured by changes in net wealth, which corresponds to a broader concept of income, savings ratio of households would have increased and not decreased.

<sup>14</sup> See King (1994).

<sup>15</sup> There was a similar case in Chile in the early 80s, see Akerlof and Romer (1993). To maintain its own credit-worthiness the government of a small country had to guarantee the foreign debts taken by the private sector.

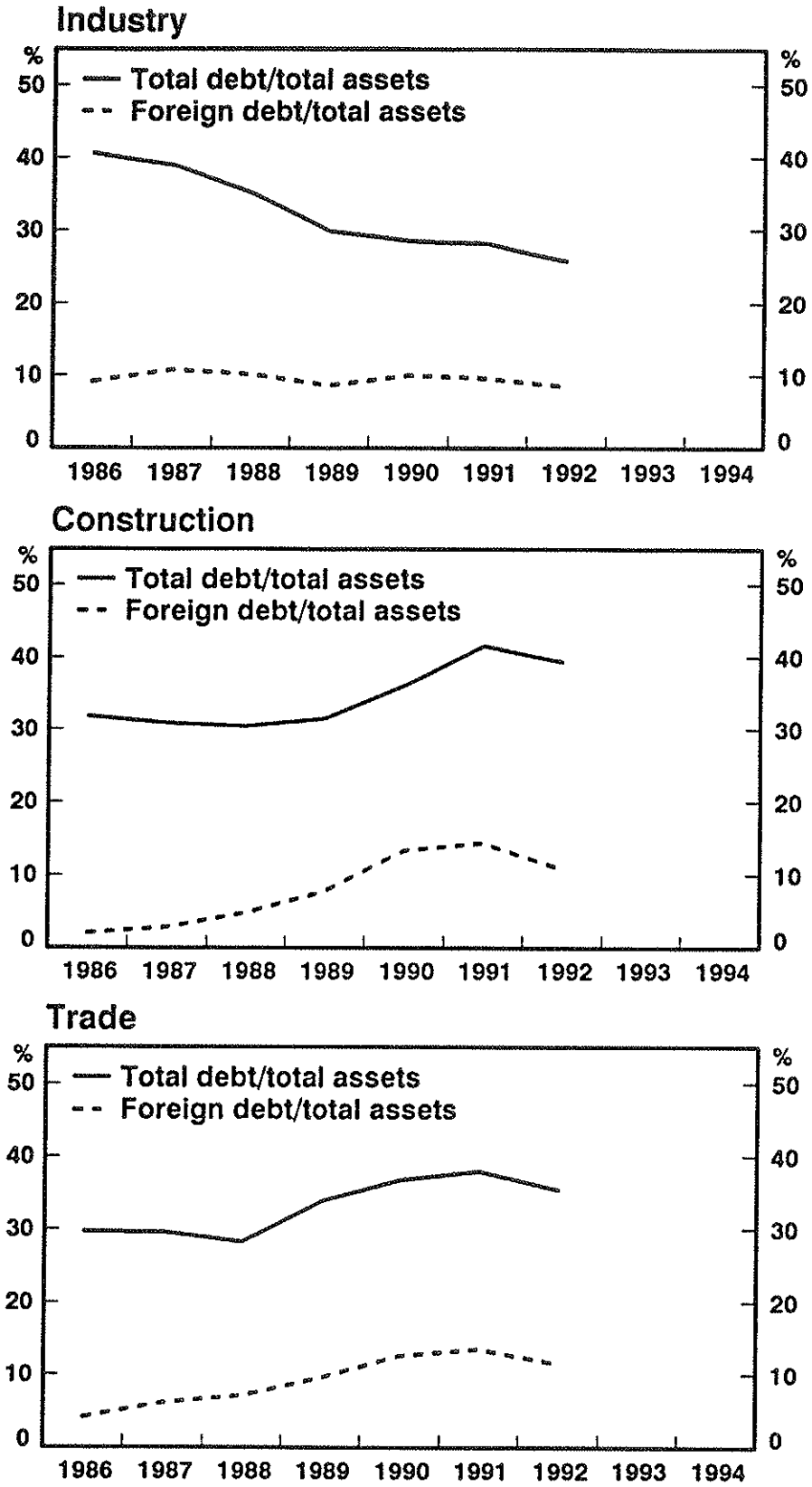
In the 30s the debt deflation was caused by a combination of falling producer and consumer prices and positive nominal interest rates. The real interest rates for producers were over 20 percent and the values of collateral shrank, causing many problems for borrowers and their creditors. In the beginning of the 90s there was no deflation if it is measured by consumer prices and only minor deflation in producer prices. However, high nominal interest rates, falling asset prices and the rapidly increasing markka-value of foreign currency denominated debt resulted in real interest rates of 20 percent or more for many investors. At the same time the savings rates of firms and households rose to record levels. Borrowers tried to reduce their indebtedness by high saving, but at the same time they saw the value of their wealth melting away faster than their debts.<sup>16</sup>

A special problem related to the debt deflation in an indebted small open economy, has been the effects of devaluations on the markka-value of foreign currency-denominated debt. Devaluations were an essential part in spurring the export-led recovery: even if the markka value of the debt increased in the manufacturing sector, so did the export earnings. However, many firms in the sheltered sector had also taken foreign currency loans: the depreciation of markka increased their debts and squeezed their sales. Consequently, most firms made record losses in 1992. This has aggravated the deflation in many sectors, e.g., in construction and the wholesale and retail trade. The number of bankruptcies peaked in 1993.

---

<sup>16</sup> This process is very well described in Fisher (1932). See also Tobin (1980).

Figure 14. Indebtedness of industry, construction and trade

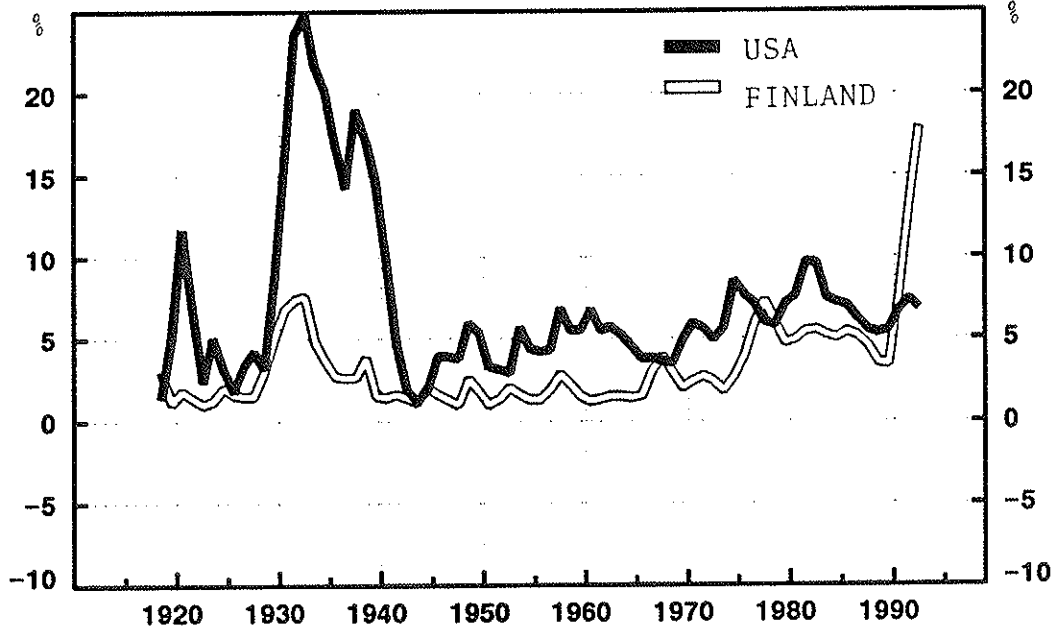


It should not be a surprise that such a combination of excessively high real interest rates and decreasing asset prices with low demand produces first payment difficulties, then bankruptcies and finally credit losses for the banks. As a result Finland entered a fullscale banking crisis in 1992, at the same time with Sweden and a couple of years later than Norway. In these three countries as well as in the US the crisis was most severe within the savings banks. It is worth noting that in the GD I the banking crisis was milder in Finland than elsewhere (e.g. in the US where thousands of banks fell in the early 30s); small banks fell but they were merged to big banks which survived without large losses. In the 1990s even the best banks have had to be supported by the state.<sup>17</sup>

## 2.6. Labour market adjustment

Unemployment has soared in GD II to levels never seen before in Finland. Its peak reached 19 percent in 1994. The increase of unemployment has been 15 percentage units within 4 years - a record rise in the post-WW II world in the industrialized countries. In the 30s the rise of unemployment was much smaller yet it was considered as a national disaster in those days. The number of registered unemployment was at worst 90,000 (or 7 percent of the labour force) in 1931. However, it is almost sure that the lower unemployment in the 1930s meant at the individual level more destitution and suffering than the record high unemployment of the 1990s. The obvious reason for this was the absence of unemployment insurance 60 years ago.

Figure 15. Unemployment rate in Finland and US



According to almost all theories wages should decrease as a response to increasing unemployment. In the 30s, the nominal wages decreased significantly. Due to falling prices the change of real wages was not so clear. In some sectors - agriculture and forestry - the real wages

<sup>17</sup> For the forms of the bank support see, e.g., the various publications of the Government Guarantee Fund.



decreased and finally were close to subsistence level. Real wages of public sector employees rose somewhat although their nominal wages were cut by 10 percent.

During GD II there has been a significant wage moderation. Three consecutive annual wage settlements have yielded zero increases in contract wages in 1992-94. In fact, in 1991 a 5 percent general wage cut was almost accepted. In October 1991 the central organizations of employers and employees accepted an agreement which would have cut nominal wages by 5 percent. The purpose of the wage cut was to avoid a devaluation. However, the trade unions of the export industries did not accept the proposal, which then collapsed. Soon after this the Bank of Finland was forced to devalue the markka. There has later been a lot of discussion about whether such a wage cut would really have helped the maintenance of a fixed exchange rate.

The continuation of small but positive wage drift and the slowdown of inflation have kept real wages more or less unchanged in 1992-1994. However, due to many increases of taxes and tariffs, the real disposable income of households has shrunk considerably. There has been much discussion on the role of wage flexibility and the non-wage labour costs. Of course, these are general European problems and also in the Finnish debate the international arguments have been repeated.<sup>18</sup>

## 2.7. Consequences of institutional changes

An important lesson from both of the great depressions is that institutional changes like deregulation of foreign trade or of financial markets or tax reforms may have serious consequences for the functioning of the economy. Even if resources are devoted to investigating these behavioural changes already beforehand, great uncertainties remain as to the magnitude of the consequences. The liberalization of trade contributed to the current account deficit before GD I and the deregulation of financial markets did the same before GD II. We have in figure 13 sketched the consequences of institutional changes related to the GD II.<sup>19</sup>

The post-war financial markets (before 1985) were characterized by regulation and attempts to stimulate investments by low interest rates. Interest rates on credits were administered, low-interest deposits were not taxed and capital movements regulated. The Bank of Finland controlled the volume and allocation of investments by controlling availability of credit from the banks. The banks were indebted to the central bank and it could control the banks' behaviour by controlling their profitability. Bank-intermediated debt-financing was favoured further by high tax rates, possibilities to deduct interest payments from taxable income and generous depreciation and provision allowances.

In this kind of environment deregulation led to rapid credit expansion and contributed to the overheating of the economy: the debt ratios of firms and households increased. High corporate tax rates and tax planning directed the profits to risky businesses. At the same time the risks related to cost of financing increased: rates were market determined and a part of the credits was denominated in foreign currencies.

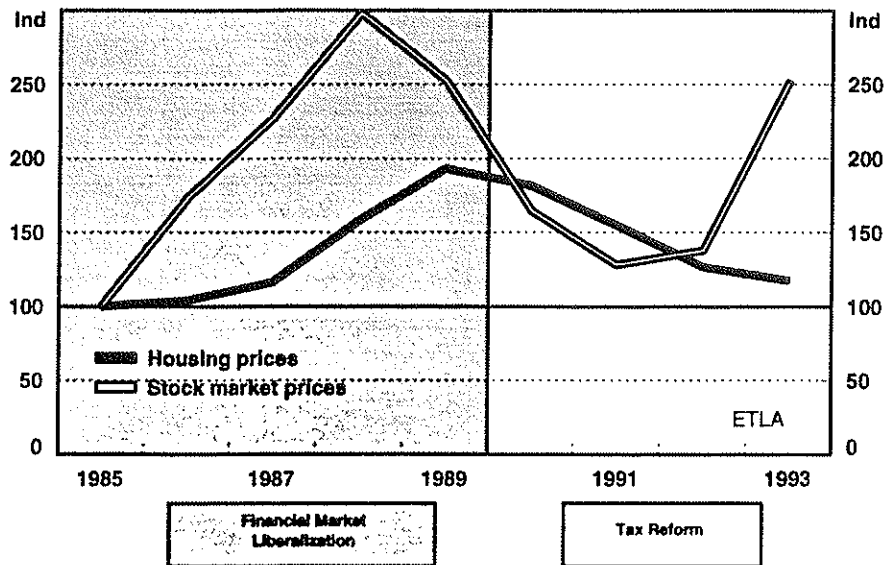
---

<sup>18</sup> For a recent contribution to this discussion see Dréze, Malinvaud (1994).

<sup>19</sup> We are grateful to Tarmo Valkonen for this figure.

The aim of the tax reform carried out in the late 1980s was to broaden the tax base and lower tax rates. Introduction of a low tax on interest from deposits increased the required return on real estate and equity. The early version of the *avoir fiscal* system tightened taxation of firm income and dividends. Debt-financing simply became less attractive than it had been. It is an interesting research task to try to investigate how these institutional changes contributed to the decline in share and real estate prices.

Figure 16. Asset prices and timing of the institutional changes



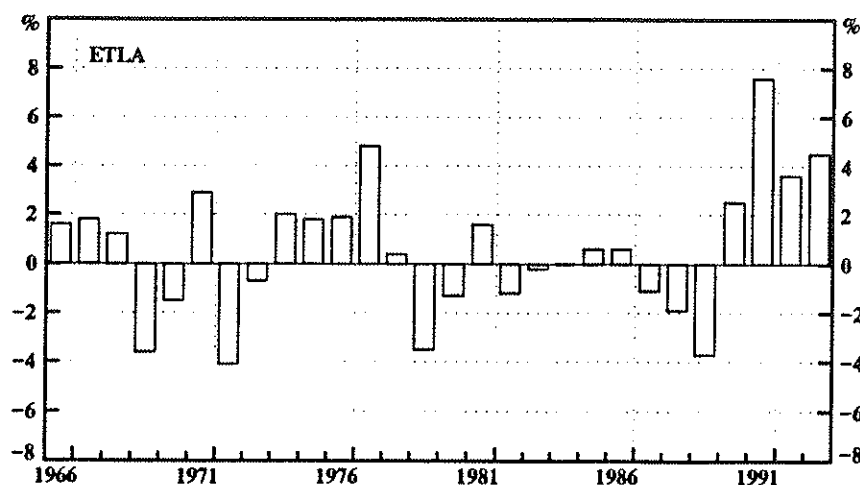
## 2.8. Forecasting and great depressions

Economic decision making under uncertainty requires some view of the future and it is important that the users of forecasts understand the risks related to various forecasts. During normal times there is a tendency to overestimate the ability to accurately forecast future events: conditional point forecasts are taken too seriously, no alternative scenarios are investigated, and not enough precautionary measures are taken. One lesson from the great depressions is that big surprises do happen every now and then. These surprises are related to events that are (often falsely) considered to be outside economics: international politics, wars, earthquakes, weather, strikes, availability of raw materials, epidemic diseases, technological or institutional changes, social innovations, etc. Few of us know how high the probability of dying in a meteor impact is, few firms are prepared for the big Japanese earthquake, and few governments are prepared for large systemic risks which lead to banking crisis and unsustainable public deficits.

It is not possible to discuss these problems and their role in recent developments in detail here. However, it is clear that large forecasting errors were made in Finland before and during the GD II. Underestimation of the growth rates during the latter half of the 80s was one reason why economic policies were not tightened enough. On the other hand, underestimation of the severity of the recession certainly postponed the solving of the problems because of lacking realism. If, e.g., unemployment had been forecast - and the public had believed it - to

increase to 20 % a couple of years earlier than it actually was, this would have contributed to, wage moderation in the overheated economy. In hindsight, many firms overinvested and became overindebted, which led to bankruptcies, credit losses and banking crises. Households based their plans on unrealistic asset prices and had to correct their financial position by increased saving, which led to a further fall in domestic demand. The public institutions were not prepared for systemic risks related to an unusually deep recession. The banking crisis became rapidly acute and the rules of the game related to risk sharing between banks and the public sector were not clear.

**Figure 17. Errors made in forecasting the GDP for the next year's budget in the previous fall**



The banking crises is not even today generally understood to be a systemic problem: according to the popular view only the banks are to blame. The banks' role in the unhappy developments has been overestimation of the importance of the market shares and underestimation of the credit risks. However, the major reason for banking crises has been the unexpected recession and the resulting very high level of credit losses. Banks cannot avoid interest rate risks and credit losses even if they invested only in government bonds or state guaranteed loans. A cautious banking system would not be good for the economy. Having a banking crisis once in a century may be a sign of the fact that the system is functioning well rather than a sign to the contrary. This is why we need continuous discussion of the institutions related to banking inspection and to banking crises.

### 3. Where do the economists disagree?

There seem to be the same basic divisions of opinion on economic policies during the both depressions, GD I and GD II. The question of the exchange rate is the most important issue. In GD I the mainstream view did not see any feasible alternatives to the gold standard until its very collapse (that was of course a common pattern of thinking throughout the world in those days). Sixty years later the majority of economists still saw the regime of fixed exchange rates as the best way to cope with the crisis, although the number of those proposing a

discretionary devaluation increased as the recession proved more severe than expected. In the following we point out also to main disagreements as to fiscal policies and as to the nature of structural problems.

### 3.1. Yrjö Jahnsson against the establishment in the 30s

The community of economists was small in Finland in the 1930s. The economics professors of the Helsinki University as well as the economists and other officials of the Bank of Finland and the Ministry of Finance were great believers of classical economics. It was no surprise that they did not see any alternatives to deflationary policies and the gold standard, which was seen as a force of nature. The market forces were given the task of liquidating the least efficient firms. An interesting exception to this rule was Yrjö Jahnsson, professor of economics of the Helsinki University of Technology. He was almost the only public figure who argued seriously against the gold standard and deflation, which he saw as the main reason for the economic misery of the early 1930s.<sup>20</sup> His ideas seem to have developed independently during the 1920s. During the GD I he became accustomed with the writings of Gustav Cassel, John Maynard Keynes and the members of the Stockholm school (Bertil Ohlin, Dag Hammarskjöld, Gunnar Myrdal). He shared their view that activist economic policy can be used to affect economic activity. However, the ideas of Jahnsson were too radical in the Finland of the 1930s; he was isolated and his writings were not published in major Finnish journals or newspapers.<sup>21</sup> The official stance was that the recession was an unavoidable consequence of the booming 1920s.

Yrjö Jahnsson wrote a large number of papers on the depression in the early 1930s. Most of them are well written and clear in their reasoning and logic. Jahnsson was invited to give a talk in the Finnish Economic Society. He argued against tight policies. The Society did not publish the paper as it was considered too controversial. Jahnsson was conscious of the effects of reflation on the current account. As a remedy he proposed that an increase in the money supply should be accompanied by higher import duties. In that case the higher domestic demand could be maintained without a deterioration of the external balance and/or a collapse of the exchange rate. The gold standard was strongly defended by the mainstream economists of the time. Yrjö Jahnsson mildly criticized the gold standard, but when other countries gave it up he strongly argued that also Finland should do so.

### 3.2. Public debate of the 1990's

Sixty years later the scene of the discussion on economic policy is richer but still the same lines remain. During the 80s it gradually became a mainstream view of Finnish economists that the past history with inflationary periods and devaluations should be ended by adopting a truly fixed exchange rate. However, as the foreign debt started to accumulate during the latter half of the decade there were warnings that the deregulation of capital movements and credit controls had led to a loss of autonomy on the side of monetary policies, and that the fiscal

---

<sup>20</sup> Autio (1992) gives a good description of the discussion on the abolishment of gold standard.

<sup>21</sup> It is worth mentioning that Yrjö Jahnsson's wife, Mrs. Hilma Jahnsson, was also active in the economic policy discussions, and probably contributed a lot to her husband's thinking.

policies were not tight enough. Moreover the hard currency line had not been reflected in the centralized wage negotiations. With fixed exchange rates this development was seen to lead to problems with interest rate and exchange rate risks, see e.g. Vartia (1988).

When it became obvious in 1991 that the exchange rate was not sustainable, the willingness to accept a corrective devaluation began to increase. After the first devaluation in November 1991 turned out to be insufficient it was easier to demand a second in 1992. One of the major areas of discussion has been whether the Bank of Finland defended the exchange rate too long and whether it should have been more active in lowering interest rates after the markka was allowed to float.

In summer 1992 the discussion on the exchange rate and monetary policy intensified. A group of economics professors (Honkapohja, Koskela, Paunio, Holmström) argued publicly for a major devaluation. Rudiger Dornbusch took part also to the debate by saying in a TV interview just few days before the floating of the markka that a 40 percent devaluation would be a proper solution to the Finnish crisis. An interesting feature of the Finnish debate was that the President of the Republic, Mauno Koivisto (himself a former governor of the Bank of Finland) took an active part in it. He defended the policy of fixed exchange rates and criticized the aforementioned professors (including Dornbusch) for not remembering the costs of devaluations and the role of liquidity constraints in international finance.

After the markka was allowed to float in September 1992, the tensions in the exchange rate policy discussions have decreased. In the months after the floating, most economists demanded lower interest rates. After hesitation and a building up of reserves for about half a year the Bank of Finland began to increase the money supply and the interest rates decreased significantly in the early 1993.

The importance of debt deflation as the main source of the sharp decline of demand has been gradually recognized by most economists. Especially this view was emphasized in the reports of three foreign experts whom the Bank of Finland invited in 1993 to stimulate the discussion and evaluate the policies (C. Bordes, D. Currie and H. Tson Söderström, 1993). All three agreed that the severity of the depression was mainly caused by the over-indebtedness of the late 1980s. As a solution to the crisis, they agreed on the importance of lower interest rates while the opinions were divided on fiscal policy. Söderström favoured a more expansive fiscal stance, Bordes and Currie considered the budget deficit already excessive and urged for rapid balancing of the budget.

Discussions over the reasons for the current recession and on the right conduct of fiscal policy have been controversial.<sup>22</sup> In the beginning of the recession public debt was small and some economists, e.g., Koskela, Paunio (1991) and Kiander (1993) and Ahtiala (1993) recommended fiscal expansion. Some others, e.g., Valkonen, Vartia (1992) and Kukkonen (1992) pointed out to the connection between fiscal stimulus and current account deficit, which they saw as the main problem. By 1994 the current account has been balanced, but the outlook for the public debt is such that most economists now see little possibilities for fiscal expansion.

---

<sup>22</sup> The official policy line has been rather well documented, e.g., in the regular economic surveys of the Ministry of Finance and the publications of the Bank of Finland. However, as there was a lot of disagreement also within, e.g., the government ministers the future research would benefit much from a documentation of the unofficial material that prepared for the decisions. A project started recently by SITRA aims at a documentation on the recession.

Many, e.g., Kukkonen (1994) have also pointed that the crowding out effects of the interest rates may already more than offset the positive income effect. Budget cuts have given rise to much debate on their depressing effects in a period of falling output, on sustainability of the large budget deficits and finally to more ideological debate on the problems of the welfare state. In the last connection, particularly the role of safety nets on the flexibility of the labour market has been discussed. Some, e.g., Paunio (1994) see that the Finnish discussion reflects the world wide ideological fight on the future of the welfare state. Whether the budget deficits have been sustainable or not depends naturally on the expectations of the future growth of the Finnish economy. It is still an open question whether to what extent the experienced fall in output is permanent or cyclical. Recently some have again emphasized the export shocks as the main source of disturbances (Tarkka 1994).

**Table 3. Stance on economic policy during GD II**

	<i>Government</i>	<i>Business</i>	<i>Labour</i>	<i>Academics</i>
<i>Exchange rate pol. (before floating)</i>	fixed	devalue	fixed	devalue (fixed)
<i>Monetary policy (after floating)</i>	loose	loose	loose	loose
<i>Fiscal policy</i>	tight	tight	loose	tight (loose)
<i>Labour market</i>	more flexibility needed		flexibility not the answer	various opinions

A recurrent topic of discussion has been the proper stance of fiscal policies: public deficits have been large but so has unemployment. Majority of discussants have favored tight fiscal policy. Those opposing this view have been a minority defending the idea of extensive welfare state and questioning (Kiander 1993, Iilmakunnas 1993, Santamäki-Vuori 1993, Willner 1992, 1993, Berglund 1993) the reasonability of pro-cyclical fiscal policy. The Finnish corporatist wage bargaining system has also been under attack: central bank, government and employers' organisations have suggested wage cuts and local bargaining.

The above table summarizes the main lines of the opinions but does not tell the whole truth. On devaluations the opinions were divided; export industries and their workers favored it as well as many academics (Honkapohja, Paunio, Tanskanen, Holmström) while the majority of trade unions, government economists, firms operating in the closed sector and a few academics (Haaparanta, Virén) were against it. In the time of high devaluation expectations preceding the float, some of the discussion on the exchange rate policies was damped by the negative effects of the devaluation demands on the interest rates: the devaluation should have come as a surprise. For example, all the forecasts published by the research institutes were based on the assumption of more or less fixed rates. It was particularly the academics and some business leaders that kept up the open discussion at that time.

There was very little discussion of the alternative exchange rate regimes in connection with both depressions. Fixed exchange rates and the ECU-peg were seen as a part of the integration to Western Europe. When Finland aimed at the membership in the EU it could not at the same time start to float, contrary to what the others were doing.

There has been a lot of discussion and disagreement on the structural nature of the depression. Here it is perhaps useful to distinguish two types of situations which can lead to so-called structural problems: 1) say, the capacity to earn exports has not grown in line with the imports or public sector has grown out of line (whatever that means) in the years preceeding the crisis, 2) the economy is initially in equilibrium, but the exogenous shock is so large and permanent that a structural problem is created. In case 1) the economy gradually develops a structural problem, in case 2) it has an unexpected structural problem. In the GD I and GD II both types of structural problems were probably present, even if a disagreement of their relative size exists. In very severe depressions the type 2) problem is very likely to emerge, even if it is not preceeded by type 1) structural problem. Thus if a healthy economy with a "proper" size of public sector is hit by a large enough negative shock, there will be problems with financing the public expenditure. Even the functioning of automatic stabilizers may lead to unsustainable accumulation of public debt.

**Table 4. Contributions of various demand components to changes in the GDP**

Year	1990	1991	1992	1993
GDP change	+0.0	-7.1	-3.8	-2.0
Exports	+0.3	-1.5	+2.7	+5.4
Public demand	+1.2	+0.6	-0.7	-1.7
Private demand	-1.5	-6.1	-5.8	-5.7

Last but not least, there is still major disagreement on the reasons that led to the Great Depression II. How much did the various factors contribute? Some economists stress the outside shocks, which a small country usually regards as given. Some point to bad policies (excessively expansionary policies during the 80s and bad timing of institutional changes) some stress the deflationary process. If we look at table 4, which gives the simple technical contributions to GDP of various demand components, we see that the decline in domestic demand contributed much more to the decline in output than in an average recession.<sup>23</sup> On the basis of this simple information it is likely that the endogenous debt deflation process contributed very much to the depression, even if it was set in motion by exogenous shocks and bad policies and supported by institutional changes. Econometric work on the effects of wealth on consumption and investments partly confirm this view, see Alho (1991), Takala (1994).

More sophisticated calculations with econometric models can shed light, e.g., on the relative magnitude of external shocks. It is clear that a decline in exports to the Soviet Union or a strong worsening of the terms of trade or the general Western European recession in the early

<sup>23</sup> This table deals with volume changes and it does not properly take into account the terms of trade deterioration.

1990s all produced serious consequences for the Finnish economy. However, the construction of credible counterfactual simulations is difficult. If Finland would not have experienced difficulties in exports in the beginning of the 1990s, the monetary and exchange rate policies, interest rates, budget deficits, credit losses, several political decisions and many other things would have been also different. To endogenize all these and thus to build credible counterfactuals is also an important research area. What are the effects of the collapse of the Soviet Union on the economic development in Finland? We have carried out some attempts in this area, but the results are too preliminary to be reported here, i.e., how does the world differ from the world where the Soviet Union would not have collapsed? The collapse not only had an effect on trade but also on unification of Germany and European monetary policies and thus to the timing of the Finnish devaluations, etc.

#### 4. Concluding remarks

The Great Depression II will be an important research area in Finland in the years to come. We have pointed out to the many similarities of the recent depression with the Great Depression of the 1930s and raised some questions that should be on this research agenda. As such the crisis also offers good material for testing various competing hypothesis. There is still wide disagreement on the origin of the crisis: What was the relative role of foreign and domestic shocks? Discussion on the role of economic policies has not yet come to any conclusions as to what could and should have been done otherwise.<sup>24</sup> The basic problem seems to be: Must all bubbles burst (like the real estate bubble in Finland, Sweden, Norway and the UK in the 1990s) or can we limit debt deflation by more expansive monetary policy?

We have stressed the view that the Finnish economy experienced a strong boom in the years preceding the depression: Financial markets were liberalized at the time when economy was growing fast, terms of trade improved, fiscal policies were expansive, credit expansion was very fast and asset prices doubled. The country was internally and externally overindebted before the depression. This made it very vulnerable to eventual shocks in the world economy. When bad luck in the international markets (collapse of Soviet trade, high real interest rates, worsening terms of trade, recession in Western Europe) was experienced and the acute crisis broke out there was no easy way out. The external constraint was so strong that it was difficult to overcome the problems by economic policies. The deflationary process that was set in motion was aggravated by the fixed exchange rate regime and the excessive level of asset prices preceding the crisis.<sup>25</sup>

We have also emphasized some problems typical to an over-indebted small open economy that make the deflationary process longer and exchange rate accommodation less effective. Part of the creditors which should contribute to the revival by increasing their expenditure are abroad. The devaluations increased the markka value of debt as it was mostly denominated in foreign currencies. In addition, the devaluations that were necessary for the reflation of the economy added particularly to the debt problems and deflation of the sheltered sectors.

---

<sup>24</sup> For two opposing views on the possibilities of economic policies see Reinikainen (1994) and Söderström (1994).

<sup>25</sup> Asset prices declined by half during a couple of years, even if wage and price inflation was only stopped.



The first lesson from the current and past great depressions - GD I and GD II - is that such things happen every now and then. It is likely that during the next hundred years many countries will experience serious depressions. Unexpected shocks may be either real or monetary. Bad crises occur if there are simultaneously various kinds of shocks as was the case throughout the world in the 1930s and in Finland in recent years. Institutions should be built so that they stand big surprises. Institutional changes in the environment should be followed and their implication studied. If you cannot forecast, you should be prepared for various alternatives. Research and general discussion of various policy options is important. It also seems that the severe peace-time economic crises are likely to lead to the debt deflation process which was observed in connection of the Finnish GD I and GD II.

## References:

- Ahtiala, Pekka** (1993): "Suomen talouden kestävä kasvun strategia" (A strategy for sustainable economic growth), *Kansantaloudellinen aikakauskirja, (The Finnish Economic Journal)* 3/1993.
- Akerlof, George A. and Paul M. Romer**, (1993): "Looting: The economic underworld of bankruptcy and profit", *Brookings Papers on Economic Activity*, 2/1993.
- Alho, Kari and Pentti Vartia** (1983): "Valuuttakurssit ja kotimainen inflaatio", *The Finnish Economic Journal* 1983:1, s. 123-126.
- Alho, Kari** (1991): "Financial Markets and Macroeconomic Policy in the Flow-of-Funds Framework", Avebury.
- Alho & al.** (1992): "Valtion velkaantuminen ja sen vaikutukset kansantaloudessa", ETLA B 79, Helsinki.
- Autio, Jaakko** (1992): "Lama ja raha - Suomen luopuminen kultakannasta vuonna 1931", Bank of Finland Discussion Papers 30/92.
- Autio, Jaakko, Vappu Ikonen and Heikki U. Elonen** (1991): "Liikepankkien vaikeudet ja Suomen Pankin tukitoimet 1928-1934", Bank of Finland Discussion Papers 25/91.
- Berglund, Magnus** (1993): "Om retoriken kring de offentliga budgetunderskotten" (On the rhetoric of the discussion on budget deficit), *Ekonomiska Samfundets Tidskrift* 4/1993 (The Journal of the Economic Society of Finland).
- Bordes, Christian, David Currie and Hans Tson Söderström** (1993): "Kolme arviota Suomen talouskriisistä ja talouspolitiikasta", Bank of Finland C:93.
- Corsetti, Giancarlo and Roubini, Nouriel** (1994): "Budget deficits, public sector solvency and political biases of fiscal policy: The case of Finland", mimeo.
- Dréze, Jacques and Edmond Malinvaud** (1994): "Growth and employment: the scope of a European initiative", *European Economic Review* 38.
- Eichengreen, Barry** (1992): "Golden Fetters", Oxford University Press, New York - Oxford.
- Fisher, Irving** (1932): "Booms and Depressions", Adelphi, New York.
- Haaparanta, Pertti, Bengt Holmström, Seppo Honkapohja, Erkki Koskela and Jouko Paunio** (1993): "Ehdotus talouspoliittiseksi ohjelmaksi", *The Finnish Economic Journal* 4/1992.
- Hjerppe, Riitta, Vappu Ikonen and Päivi Valkama** (1993): "1930-luvun lama ja Suomen velkaantuminen", *The Finnish Economic Journal* 1/1993.

**Honkapohja, Seppo** (1991): "Kaksitahoinen strategia talouspolitiikalle" (A double-strategy for economic policy), *Helsingin Sanomat* 15.10.1991.

**Ilmakunnas, Seija** (1993): "Julkisen sektorin suunta", *Talous ja yhteiskunta* 4/1993.

**Jahnsson, Yrjö** (1985/1931): "Suomessa vallitsevan rahapulan syistä", *The Finnish Economic Journal*.

**Kanniainen, Vesa** (1993): "Valtiontalous, rahapolitiikka ja työmarkkinat: Suomi vuonna 1992", A collection of writings, University of Helsinki, Department of Economics.

**Kiander, Jaakko** (1992a): "Palkkojen alentaminen lisää työttömyyttä ja syventää lamaa" (Wage cuts are harmful to employment), *Helsingin Sanomat* 14.7.1992.

**Kiander, Jaakko** (1992b): "Keskuspankkien vallankaappaus" (Coup d'etat by central banks), *Kanava* 6//1992.

**Kiander, Jaakko** (1993): "Valtion velka ja velkaelvytys" (Public debt and fiscal expansion) in Allen, T. - Heinonen, V. - Pantzar, M. (eds.): *Täyskäännös - Taloutemme valintojen edessä*, Gaudeamus, Helsinki.

**Kiander, Jaakko** (1994): "Devaluation cycle as an implicit contract" PT Discussion Papers No. 120.

**Kindleberger, Charles P.** (1978): "Panics, manias and crashes - A history of financial crises", Macmillan Press Ltd., London.

**King, Mervyn** (1994): "Debt deflation, Theory and Evidence", *European Economic Review* 38, p. 419-445.

**Koivisto, Mauno** (1994): "Kaksi kautta", Kirjayhtymä, Helsinki.

**Korkman, Sixten** (1992): *Työväen taloudellisen tutkimuslaitoksen katsaus* 1992:2.

**Korpinen, Pekka and Seppo Kykkänen** (1974): Suomen Pankin valuuttakurssipolitiikka 1945-1973, *Työväen taloudellisen tutkimuslaitoksen katsaus* 3/1974.

**Koskela, Erkki** (1991): "Miksi vahvan markan politiikka on kestämatön?" (Why the policy of strong currency is unsustainable?), *Kauppalehti* 15.11.1991.

**Koskela, Erkki and Jouko Paunio** (1991): "Budjetin alijäämä mahdollista kattaa myös setelirahoituksella" (Budget deficit can be financed by monetary expansion), *Helsingin Sanomat* 13.12.1991.

**Koskenkylä, Heikki and Christian Starck** (1992): "Finanspolitisk stimulans orätt medicin" (Fiscal expansion is incorrect policy), *Hufvudstadsbladet* 16.3.1992.

**Kukkonen, Pertti** (1993): "Puheenvuoro makrotaloudellisista ongelmista", *The Finnish Economic Journal* 3/1993.

**Kukkonen, Pertti** (1994): "Kamppailu talouspolitiikan linjasta - voiko finanssipolitiikalla elvyttää? *Pellervon Taloudellisen Tutkimuslaitoksen katsaus* 2/1994.

**Kuusterä, Antti** (1993): "Pankkikriisi ja 1930-luvun lama" (Banking crisis and the recession of the 1930s), in Allen, T. - Heinonen, V. - Pantzar, M. (eds.): *Täyskäännös - taloutemme valintojen edessä*, Gaudeamus, Helsinki.

**Leibfritz, W. - Roseveare, D. - van den Noord, P.** (1994): "Fiscal Policy, Government Debt and Economic Performance", OECD, Economic Department Working Papers No. 144, Paris.

**Leppänen, Seppo** (1975): "Turmiollinen devalvaatio" (Dismal devaluation), *The Finnish Economic Journal* 3/1975.

**Lindbeck et al.** (1993): "Nya villkor för Sverige", Allmänna Förlaget, Stockholm.

**Malinvaud, Edmond** (1977): "Theory of Unemployment Reconsidered", Oxford: Blackwell.

**Miles, David** (1992): "Housing markets, consumption and financial liberalization in the major economies", *European Economic Review*, Vol. 36, No.5.

**OECD** (1994): "Economic Outlook", Paris.

**Oksanen, Heikki** (1978): "Suomen devalvaatiosykli ennen ja nyt" (Devaluation cycles in Finland), *Työväen taloudellisen tutkimuslaitoksen katsaus* 4/1978.

**Paunio, Jouko** (1991a): "Liian vahvan markan politiikka voi järkyttää koko rahajärjestelmää" (The policy of too strong currency risks the stability of the financial system), *Helsingin Sanomat* 7.7.1991.

**Paunio, Jouko** (1991b): "Ecu-päätös luovutti riippumattomuuden liian varhain ja löyhän perusteen" (The decision to link FIM to Ecu led to the loss of independence in a too early phase), *Helsingin Sanomat* 30.9.1991.

**Paunio, Jouko** (1993): "Deflaatio yhtä paha peikko kuin korkea inflaatio" (Deflation is as bad as inflation), *Helsingin Sanomat* 21.3.1993.

**Paunio, Jouko** (1994): *Helsingin Sanomat* 21.5.1994.

**Pekkarinen, Jukka and Juhana Vartiainen** (1993): "Kuinka vakavia ovat taloutemme epätasapainot?", *The Finnish Economic Journal* 3/1993.

**Reinikainen, Veikko** (1994): "Finlands ekonomiska kris. Kritiska och konstruktiva reflektioner", *Ekonomiska Samfundets Tidskrift* 2/1994 (The Journal of the economic society of Finland).

**Santamäki-Vuori, Tuire** (1992): See VNK (1992).

**Sauramo, Pekka** (1993): "'Monetarismia, kameralismia vai jotain muuta?' (Monetarism, cameralism or something else?) in Allen, T. - Heinonen, V. - Pantzar, M. (eds.): *Täyskäännös - Taloutemme valintojen edessä*, Gaudeamus, Helsinki.

**Stiglitz** (1992): "Capital markets and economic fluctuations in capitalist economies", *European Economic Review*, 36.

**Söderström, Hans Tson** (1993): "Finlands ekonomiska kris" (The Finnish economic crisis), *Ekonomiska Samfundets Tidsskrift* 4/1993 (The Journal of the economic society of Finland).

**Söderström, Hans Tson** (1994): "Finlands ekonomiska kris". En kommentar., *Ekonomiska Samfundets Tidsskrift* 2/1994.

**Takala, Kari** (1994): Unpublished manuscript on wealth effects in consumption function, Bank of Finland.

**Tanskanen, Antti** (1991): "Mr. Churchillin oppi estää Suomen elpymisen", *Suomen Kuvalehti* 31/1991.

**Tarkka, Juha** (1993): "Onko suhdannepolitiikka vain tahdon asia?", *The Finnish Economic Journal* 2/93.

**Tarkka, Juha** (1994): "Ulkoisten tekijöiden merkitys Suomen talouskriisissä", *The Finnish Economic Journal* 1/1994.

**Tobin, James** (1980): "Asset Accumulation and Economic Activity"

**Valkonen, Tarmo and Pentti Vartia** (1992): "Current Outlook and Economic Policy", *The Finnish Economy* 1992/1.

**Vanhala, Matti** (1993): "Markkan kellutus olisi estänyt ylikuumentumisen" (Floating the markka in the 1980s would have prevented overheating), *Helsingin Sanomat* 22.8.1993.

**Vartia, Pentti** (1988): "Kommenttipuheenvuoro budjettiesitelmään", *The Finnish Economic Journal* 4/88.

**Vartia, Pentti** (1993): "Kuinka vakavia ovat taloutemme epätasapainot?", *The Finnish Economic Journal* 3/1993.

**Virén, Matti** (1993): "Suhdannepolitiikka uhkaa epäonnistua", *Helsingin Sanomat* 20.12.1993.

**VNK** (1992): "Kansantalouden ongelmat ja lähivuosien talouspolitiikka" (The problems of the economy and the economic policy of near future), *Valtioneuvoston kanslian julkaisuja* 5/1992.

**Willner, Johan** (1992): "Skall vi spara oss ur krisen?" (Shall we get out of crisis by savings?), *Hufvudstadsbladet* 9.3.1992.

**Willner, Johan** (1993): "Lama ja julkisen sektorin säästöt" (Recession and the cuts of public expenditure) in Allen, T. - Heinonen, V. - Pantzar, M. (eds.): *Täyskäännös - Taloutemme valintojen edessä*, Gaudeamus, Helsinki.



**ELINKEINOELÄMÄN TUTKIMUSLAITOS (ETLA)**  
THE RESEARCH INSTITUTE OF THE FINNISH ECONOMY  
LÖNNROTINKATU 4 B, FIN-00120 HELSINKI

---

Puh./Tel. (90) 609 900  
Int. 358-0-609 900

Telefax (90) 601753  
Int. 358-0-601 753

**KESKUSTELUAIHEITA - DISCUSSION PAPERS ISSN 0781-6847**

- No 495 JOUNI P. MÄKELÄ, Teleklusterin tutkimus- ja kehitystoiminta sekä koulutus ja konsultointi. 16.05.1994. 67 s.
- No 496 JYRKI RUUTU, Tuntipalkkojen ja työmäärän jousto teollisuudessa laman aikana. 18.05.1994. 68 s.
- No 497 MIKA MALIRANTA, Suomen työn tuottavuuden kansainvälinen taso ruoan, juomien ja tupakkatuotteiden valmistuksessa. Kahdenvälinen vertailu Ruotsiin ja Yhdysvaltoihin. 24.05.1994. 23 s.
- No 498 MAARIT SÄYNEVIRTA - PEKKA YLÄ-ANTTILA, Teknologiaintensiivisten yritysten kansainvälistyminen. 06.06.1994. 54 s.
- No 499 PETTERI KAUPPALA, Matkustajalaivaliikenteen kansallinen kilpailukyky. 06.06.1994. 65 s.
- No 500 KAAREL KILVITS, Current State of Estonian Industry. The basic material prepared in autumn 1993 for the joint Estonian-Finnish study project on "the Future of Estonian industry". 10.06.1994. 74 p.
- No 501 KALLE LAAKSONEN - RAIJA VOLK, Elintarvikeklusterin kilpailukyky - Väliraportti. 20.06.1994. 59 s.
- No 502 SYNNOVE VUORI, Teknologian tutkimuksen nykytila Suomessa. 21.06.1994. 23 s.
- No 503 PETRI ROUVINEN, Hyvinvointi- ja elintarvikeklusterin kilpailukyky - Väliraportti. 27.07.1994. 66 s.
- No 504 SYNNOVE VUORI, R&D, Technology Diffusion and Productivity in Finnish Manufacturing. 30.08.1994. 27 p.
- No 505 MINNA SALMI, The Rise of Kone Elevators to the top of the world. 05.09.1994. 29 p.
- No 506 JARI AALTO, Suomalaisten teräsrakenteiden toimittajien kilpailukyky. 05.09.1994. 31 s.
- No 507 PIA KORPINEN, Kilpailuetu kansainvälisessä kaupassa - suomalainen kuntovälineteollisuus. 05.09.1994. 78 s.
- No 508 RISTO PENTTINEN, Timanttimalin arvostelu. 05.09.1994. 32 s.
- No 509 GUSTAV VON HERTZEN - JULIANNA BORSOS, An Agro-food Industrial Strategy for the Baltic States. 21.09.1994. 75 p.



- No 510 JUHA VILJAKAINEN, Euroopan unionin teollisuuspolitiikka ja suomalainen terästeollisuus. Case: Rautaruukki. 26.09.1994. 30 s.
- No 511 NINA J. KONTULAINEN, Competitive Advantage of the Finnish Fiber Processing Machinery Industry. 10.10.1994. 60 p.
- No 512 HANNA VUORI, Betoniteollisuuden kilpailukyky. 18.10.1994. 39 s.
- No 513 PASI KUOPPAMÄKI, Ilmastonmuutos ja Suomen maatalous. 19.10.1994. 36 s.
- No 514 ESKO TORSTI, Profit Margins in Finnish Industry - a Panel Data Analysis. 26.10.1994. 24 p.
- No 515 JARKKO RANTALA, Suomalaisen rakennusteollisuuden kilpailukyky projektiviennissä, Case: Venäjän sotilaskylät. 26.10.1994. 25 s.
- No 516 ESKO TORSTI, The Scandinavian Inflation Model in Finland. 26.10.1994. 19 p.
- No 517 JAANA KOOTA, Hirsi- ja puutaloteollisuuden kilpailukyky. 01.11.1994. 19 s.
- No 518 MARKO TEIVAS, Talotekniikan kilpailukyky. 01.11.1994. 23 s.
- No 519 MARKKU SOININEN, Rakennuspuusepänteollisuuden kilpailukyky. 01.11.1994. 22 s.
- No 520 KRISTIINA SOLA, Rakennusalan suunnittelun ja konsultoinnin kilpailukyky. 07.11.1994. 32 s.
- No 521 JUHA JUNNONEN, Vesihuoltoon ja vedenkäsittelyyn liittyvän rakentamisen kilpailukyky. 07.11.1994. 30 s.
- No 522 JARI PELTOLA, Kojiman suhteellisten etujen hypoteesi suorille sijoituksille - kiista länsimaisen teorian universaalisuudesta. 14.11.1994. 76 s.
- No 523 HELENA LAIHOSOLA, Suomalaisen lääketeollisuuden kilpailuetu. 15.11.1994. 60 s.
- No 524 VELI-MATTI TÖRMÄLEHTO, Huomioita endogeenisen kasvuteorian ja Michael E. Porterin kilpailuetuteorian yhtäläisyyksistä. 16.11.1994. 33 s.
- No 525 RITA ASPLUND, Wage Differentials, Wage Mobility and Skills in Finnish Industry. An empirical analysis of the period 1980-1992. 28.11.1994. 67 p.
- No 526 JAAKKO KIANDER - PENTTI VARTIA, The Great Depression of the 1990s in Finland. 22.12.1994. 31 p.

Elinkeinoelämän Tutkimuslaitoksen julkaisemat "Keskusteluaiheet" ovat raportteja alustavista tutkimustuloksista ja väliraportteja tekeillä olevista tutkimuksista. Tässä sarjassa julkaistuja monisteita on mahdollista ostaa Taloustieto Oy:stä kopiointi- ja toimituskuluja vastaavaan hintaan.

Papers in this series are reports on preliminary research results and on studies in progress. They are sold by Taloustieto Oy for a nominal fee covering copying and postage costs.

d:\ratapalo\DP-julk.sam/04.01.1995