

Työpaperiä  
Working Papers

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DOES OUTWARD  
FOREIGN DIRECT  
INVESTMENT  
REDUCE  
DOMESTIC  
INVESTMENT?  
MACRO-EVIDENCE  
FROM FINLAND

Pekka Sauramo



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Does outward  
foreign direct  
investment reduce  
domestic  
investment?  
Macro-evidence  
from Finland\*

Pekka Sauramo\*\*

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## TIIVISTELMÄ

Raportissa tarkastellaan ulkomaille suuntautuneiden suorien sijoitusten vaikutuksia kotimaisiin investointeihin Suomessa erityisesti 1990-luvun alun laman jälkeen, jolloin investointitoiminta on ollut laimeata. Vaikutuksia analysoidaan hyödyntämällä makrotaloudellista aineistoa ajanjaksolta 1965-2006 ja estimoimalla Feldsteinin (1994) käyttämään makrotaloudelliseen kehikkoon perustuvia dynaamisia investointiyhtälöitä. Tulosten mukaan suorat sijoitukset ulkomaille ovat vähentäneet investointeja kotimaassa. Riippuvuus on samankaltainen yksi-yhteen -riippuvuus, jonka myös Feldstein sai hyödyntäessään tietoja 15-18 OECD-maan kehityksestä: yksi euro ulkomaille suorana sijoituksen alentaa investointeja kotimaassa yhdellä eurolla pitkällä aikavälillä. Ulkomaille suuntautuneiden suorien sijoitusten rajua kasvua voidaankin pitää keskeisenä laimean investointitoiminnan syynä.

## ABSTRACT

The paper is concerned with the relationship between outward foreign direct investment (FDI) and domestic investment in Finland during the post-depression years of low domestic investment activity. The relationship is analysed by the use of macroeconomic data on the period from 1965 till 2006 and through the estimation of dynamic investment equations which are based on the macroeconomic framework employed by Feldstein (1994). According to the results, outward FDI decreased domestic investment activity. The relationship is a one-to-one -trade-off: one euro abroad decreases domestic investment by one euro in the long run. This result is in conformity with the results which Feldstein obtained by utilizing data on 15-18 OECD countries. The strong growth of outward FDI can therefore be regarded as the major cause of low investment activity in Finland.

JEL classification: E22, F21, F23

Key words: outward foreign direct investment, domestic investment, domestic saving

## 1. INTRODUCTION

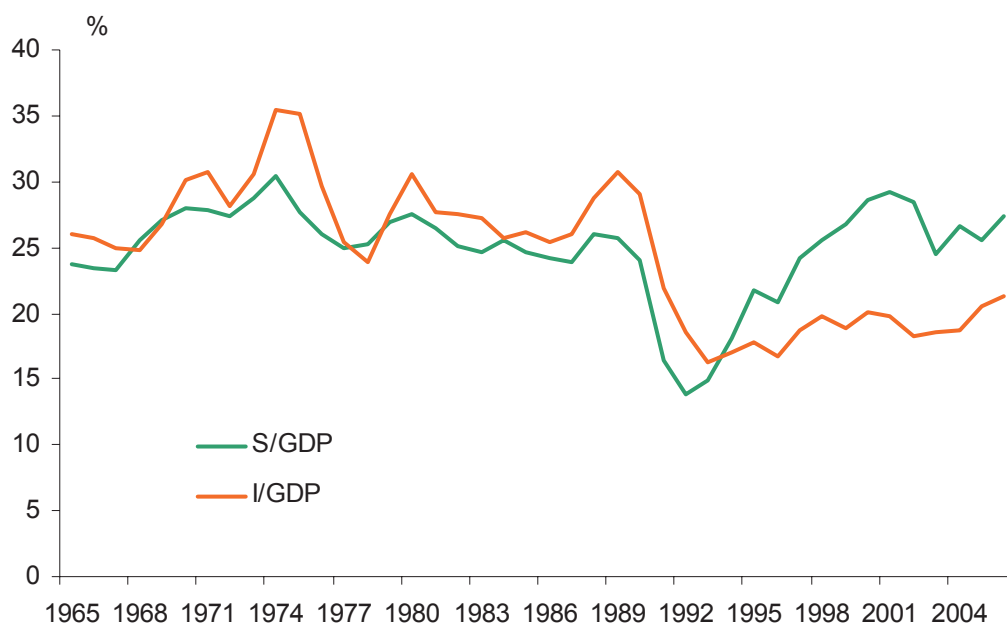
Finland is one of those industrialized countries which has been heavily influenced by globalisation, and economic integration in general. During the past fifteen years, this has been reflected in a very rapid internationalisation of Finnish firms, of which the Nokia Company may be the best example. While membership of the European Union in 1995 strengthened the already strong economic relations to European countries, the expansion of Finnish firms to North America and to Asia has marked a new phase in the economic history of Finnish multinational enterprises.

As part of the process, the Finnish economy has transformed from a capital-importing into a capital-exporting country. The change has been drastic, because traditionally a chronic current account deficit was one of the main concerns for Finnish policymakers. The question about the relationship between outward foreign direct investment (FDI) and domestic investment is of particular interest in Finland, because the process of the internationalisation of Finnish firms has been associated with historically low domestic investment activity during the post-depression years (Figure 1). Deficient domestic saving cannot be blamed for the decline because after the depression the saving-GDP ratio has returned to the average pre-depression level or even higher. This has been due mainly to the very good average profitability of Finnish firms.

In this paper the relationship between outward FDI and domestic investment is analysed by the use of macroeconomic data. The paper employs the framework which was originally used by Feldstein (1994). That framework is an extension of the well-known approach which Feldstein and Horioka (1980) utilised in their study of the relationship between saving and investment among OECD countries during the 1960s and 1970s. The main result of that study has been summarized as the Feldstein-Horioka puzzle.

Feldstein and Horioka (1980) found that even in the presence of high international mobility of capital domestic investment and domestic saving were highly positively correlated. Saving that originates in a country tends to remain in that country. This contrasts with the view that with perfect capital mobility there is little (or no) relation between domestic investment and domestic saving. The authors rationalized their finding by arguing that even in the world of high capital mobility the international capital market is *de facto* segmented. Investors have home bias, which is reflected in a close association between domestic investment and domestic saving.

**Figure 1. Domestic investment and saving in Finland 1965-2006.**



Source: Statistics Finland, National Accounts.

Note: The series depicts domestic investment and saving as a share of GDP (in percentages).

Feldstein and Horioka's analysis gave birth to a vast number of further analyses of the relationship between investment and saving. Not surprisingly, it also caused criticism, because a close relationship between domestic investment and domestic saving can be explained in many other ways, not only by the segmented capital market. For example, it can reflect the fact that governments react to current account imbalances with policies that reduce imbalances. Some authors have maintained that the relationship is due to a country's intertemporal budget constraint, which implies current account stationarity (for further discussion, see, for example, Obstfeld 1995).

Feldstein (1994) is a straightforward extension of Feldstein and Horioka (1980), which did not analyse whether domestic investment is influenced by outward, or inward, FDI. Even though portfolio funds are likely to be segmented into national capital markets, foreign direct investment can achieve, by definition, cross-border capital flows. The main finding of Feldstein's (1994) analysis was that there is a one-to-one trade-off between outward FDI and domestic investment. A dollar outflow of outward FDI reduces domestic investment by the same amount in the long run. Furthermore, this reduction is not offset by a change in international portfolio investment, which is consistent with the segmented capital market.

Feldstein obtained this result by utilising average data across 15-18 OECD countries from the 1970s and 1980 and by estimating regression equations which typically were of the form

$$(1) \quad I/GDP = \alpha + \beta S/GDP + \gamma FDI_{out}/GDP + \theta FDI_{in}/GDP + \varphi Z + \varepsilon,$$

where  $I/GDP$  is domestic investment – GDP ratio,  $S/GDP$  domestic saving – GDP ratio,  $FDI_{out}/GDP$  outward FDI – GDP ratio,  $FDI_{in}/GDP$  inward FDI – GDP ratio,  $Z$  other variables and  $\varepsilon$  a random error. For Feldstein, the basic reason for the introduction of other variables ( $Z$ ) is the attempt to deal with the simultaneity problem which is inherent when equations like equation (1) are estimated. The use of other variables is a kind of second-best option in a situation where it is very difficult to find good instruments for the FDI variables. Vector  $Z$  includes, for example, a dummy variable indicating whether the country is situated in Europe, the size of the country, its average inflation, its average growth rate, and its average real interest rate.

In the estimations, the estimate of  $\gamma$  was normally statistically significant and near unity, whereas  $\theta$ , the coefficient on inflows, was non-significant. The saving retention coefficient,  $\beta$ , was always significant and somewhat smaller than unity.

Feldstein's result is in conformity with the assumption which Hufbauer and Adler (1968) described as the *classical* assumption in their taxonomy on the alternative effects of outward FDI on domestic and foreign investment. According to the classical substitution assumption, outward FDI completely replaces home investment and completely supplements host country investment (see Hufbauer and Adler 1968, 6; see also Caves 1996, 116-118). According to Caves (1996), the evidence accumulated till the mid-1990s tended to support the classical assumption (see Caves 1996, 122-123).

Since then, Feldstein's (1994) analysis has been updated by the use of more recent data on a larger set of countries. More recent findings are in line with his results. For example, Desai et al. (2005) cover a sample of 20 (for the 1980s) or 26 (in the case of the 1990s) OECD countries for which estimations are based on decade-long average values. The authors conclude that Feldstein's (1994) results also persist when the more recent data set is utilised. García and Domonte (2006) also replicate, update and extend Feldstein's study in an analogous manner. Their results and interpretations are consistent with Feldstein's findings. However, the most recent data from the 1990s and the early 2000s seem to indicate that, even though outward FDI reduces domestic investment, the reduction may be smaller than the one suggested by the one-to-one trade-off.

Feldstein did not apply his framework to individual countries. However, as in Feldstein and Horioka's case (1980), the framework has also been utilized when the relationship between outward FDI and domestic investment has been analysed by the use of data on individual countries. The

findings have differed. One reason for this has been the use of different models when the data for individual countries have been analysed.

Andersen and Hainaut (1998) focused on the United States, Japan, Germany and the United Kingdom. They estimated a dynamic error-correction model for each country, utilising annual time-series data covering the years from the 1960s until the 1990s. Their results were similar to Feldstein's. In each country, outward FDI tends to reduce domestic investment although the relation could differ from the one-to-one trade-off.

Herzer and Schrooten (2007) conducted a similar analysis for the United States and Germany. The error-correction models they estimated were, however, simpler. (For example, the equations did not include domestic saving.) Their main finding was that, in Germany, outward FDI has a negative long-run effect on domestic investment while the short-run effect is positive. For the United States their conclusion differs from the one obtained by Andersen and Hainaut (1998). According to their analysis, outward FDI has a positive long-run effect on domestic investment.

García and Domonte (2006) complete their analysis by investigating the relationship between FDI and domestic investment in Japan, Switzerland, Canada and Spain. Their main result was that outward FDI did not influence domestic investment in those countries. The authors did not attempt to model dynamic models but estimated models which were similar to equation (1). It is highly likely that the statistical properties of their models could have been improved by the estimation of dynamic models. Obviously, the differing results the authors obtained may be due to differing methods in the estimation of models.

The main purpose of this paper is to investigate the relationship between outward FDI and domestic investment in Finland. The analysis is performed by using Feldstein's (1994) framework. As in some other studies, the considerations are based on the estimation of dynamic models by the use of annual data from the 1960s till 2006. Two aggregative data sets are employed. The first one consists of the data on the whole economy, and the second one the data on the non-financial corporations. (In addition to these data sets, quarterly data from the period 1975:1-2006:4 was utilized when the robustness of the results for the whole economy was analysed.)

The next section discusses the most important features of the data. The main results are presented in the third and fourth section. The final section summarizes the results, and points to areas in need of further investigation.



## 2. INVESTMENT, SAVING AND FDI IN FINLAND

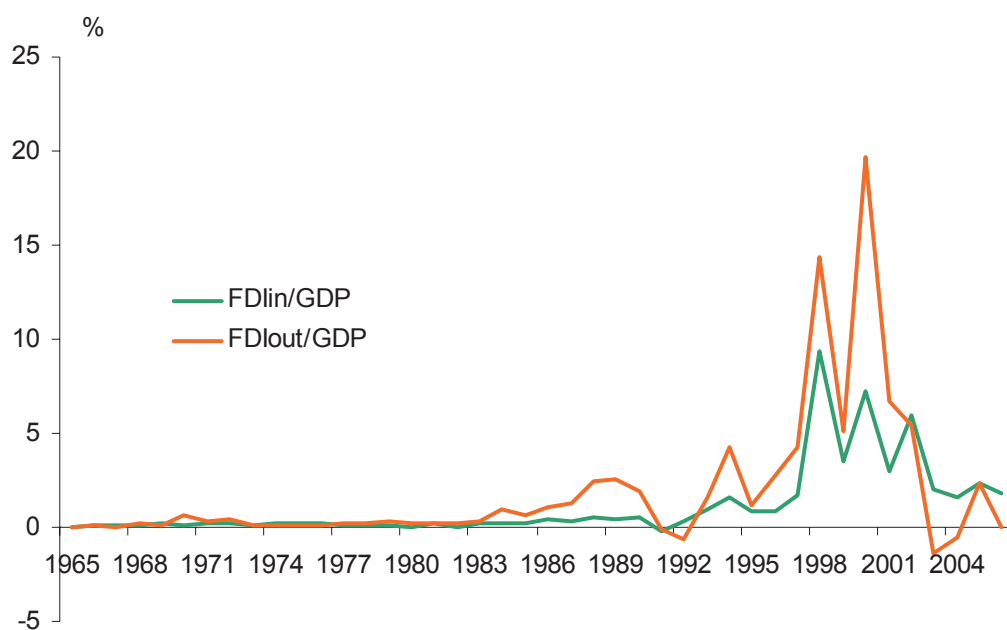
The Finnish economy experienced a very deep depression at the start of the 1990s. During the years of depression (1991-1993) GDP decreased by 11 per cent, and both the investment – GDP ratio and the saving – GDP ratio collapsed (Figure 1). It is natural to expect that both ratios would have risen to their previous levels after the depression. As regards the investment ratio, this has not taken place. It has increased somewhat from the lowest level it achieved in 1993 but the level has remained clearly below the level of the 1970s and 1980s.

Can this feature be explained by outward FDI? This is the question which I shall attempt to answer by means of the subsequent analysis. As already noted in the introduction, internationalisation of the Finnish economy has been very rapid. Both outward and inward FDI have increased strongly (Figure 2). Table 1 summarises the data for two periods. (The years of the depression have been omitted).

During 1994-2006, the investment rate was almost ten percentage points lower than during 1965-1990. This drop is emphasized by the fact that the saving rate remained unchanged, and, consequently, the current account surplus was very big. The very fast internationalisation is reflected in the FDI – GDP –ratios. Figure 2 illustrates that the patterns of outward and inward FDI are similar even though the rate of growth of outward FDI was higher.

Figure 2 also shows that, as in many other countries, FDI activity was very high at the turn of the century. The lion's share of outward FDI activity can be attributed to cross-border mergers and acquisitions (M&As), and not to greenfield investments undertaken by Finnish multinational enterprises (MNEs). The global boost in FDI activity during the late 1990s is, however, somewhat artificial because the equity price bubble also inflated the value of FDI transactions recorded in the balance of payments. The burst of the bubble is reflected as a strong consolidation of FDI activity. It should be noted that, in the case of Finland, some M&As can be reflected simultaneously both in outward and inward FDI flows. This is due to the manner in which these M&As were financed.

**Figure 2. Outward and inward FDI flows 1965-2006.**



Source: Statistics Finland, National Accounts; Bank of Finland, Balance of Payments.

**Table 1. Investment, saving and FDI in Finland 1965-1990 and 1994-2006.**

|            | 1965-1990 | 1994-2006 |
|------------|-----------|-----------|
| I/GDP      | 28.1      | 18.9      |
| S/GDP      | 25.9      | 25.2      |
| CA/GDP     | -2.2      | +6.3      |
| FDIout/GDP | 0.6       | 4.9       |
| FDIin/GDP  | 0.2       | 3.2       |

Source: Statistics Finland, National Accounts; Bank of Finland, Balance of Payments.

Note: CA/GDP = (S-I)/GDP denotes current account surplus as a share of GDP (in percentages).

### **3. THE RELATIONSHIP BETWEEN OUTWARD FDI AND DOMESTIC INVESTMENT: THE WHOLE ECONOMY**

The best way of interpreting Feldstein's (1994) main result, i.e. there is a one-to-one trade-off between outward FDI and domestic investment, is to regard the relationship as a long-run relation. It should be remembered that equations of the type (1) have normally been estimated by the use of average country data over a certain, normally ten-year period. Accordingly, when the relationship has been analysed by the use of data on individual countries, analyses have typically been based on the estimation of dynamic equations by which one can analyse whether there exists a long-run relationship between outward FDI and domestic investment in an individual country.

I also follow that way and estimate dynamic equations while paying special attention to a possible long-run relationship between outward FDI and domestic investment. Estimations are based on the use of annual data on outward FDI, domestic investment, domestic saving and GDP over the period from 1965 until 2006. The relevant data is depicted in Figures 1 and 2. The data on inward FDI is omitted, however. The reason is not only that this paper mainly focuses on the relationship between outward FDI and domestic investment. As mentioned earlier, some M&As are financed through such equity exchanges that induce simultaneous changes in the data on both outward and inward FDI flows. These exchanges cause such co-movements between outward and inward FDI flows that are very hard to interpret. This remark especially concerns the years 1998 and 2000, which were the years of very high FDI activity.

In what follows, the dynamic relationship between the variables  $I/GDP$ ,  $S/GDP$  and  $FDI_{out}/GDP$  is examined. Even though I am mainly interested in analysing the existence of a long-run relationship between these variables, the estimation of a dynamic model allows me to consider some aspects of the dynamic relationship which are mainly relevant in the short run.

According to standard Augmented Dickey-Fuller tests, the three variables are non-stationary  $I(1)$  variables. When one looks at Figures 1 and 2, this should not come as a surprise. The co-integration properties of the variables were examined in two alternative ways, i.e. by the use of both the traditional single equation framework, and by the estimation of a three-equation VAR model.

The use of both frameworks produced the same result. The variables are cointegrated. When the traditional single equation framework was utilized, the analysis proceeded in two stages. First an autoregressive distributed lag equation (AD(2,2) equation) was estimated and the properties of the resulting long-run relationship were analysed. Thereafter, an error-correction model, which contains the long-run equation as the error-correction mechanism, was estimated.

The resulting long-run equation is of the form

$$(2) \quad I/GDP = 1.07S/GDP - 1.18FDIout/GDP$$

(23.7)            (-3.73)

$$\text{Wald's } \chi^2(2) = 662.4 **.$$

According to the standard tests, there is a statistically significant long-run relationship between domestic investment, domestic saving and outward FDI. (Values of t-statistics are in parentheses. The Wald  $\chi^2$  test statistics for the long-run equation are also reported; \*\* indicates significant at the 1% level). Furthermore, equation (2) is the cointegrating relation between I/GDP, S/GDP and FDIout/GDP.

The error-correction model associated with equation (2) is as follows.

$$(3) \quad \Delta(I/GDP)_t = 0.147\Delta(I/GDP)_{t-1} + 0.318\Delta(S/GDP)_{t-1} + 0.19\Delta(FDIout/GDP)_{t-1} -$$

(0.906)                      (1.62)                      (1.93)

$$-0.33(I/GDP - 1.07S/GDP + 1.18FDIout/GDP)_{t-1}$$

(-3.59)

$$T = 40 (1967-2006), \quad \sigma = 1.9, \quad D-W = 1.87$$

$$\chi^2_{\text{NORM}}(2) = 0.55, \quad F_{\text{AR}}(2,34) = 3.25, \quad F_{\text{HET}}(8,27) = 0.60, \quad F_{\text{ARCH}}(1,34) = 0.01$$

where  $\Delta$  is the first difference operator. The error-correction term is the most important explanatory variable in the equation. (Values of t-statistics are in parentheses.) The equation also passes the standard diagnostic tests.

In equation (2) the coefficient of FDIout/GDP is very near unity, but the restriction that the coefficient is equal to unity is rejected. Nevertheless, equation (2) is in conformity with Feldstein's (1994) basic result. In Finland, too, outward FDI flows reduce domestic investment, and the relationship is very near the one-to-one trade-off obtained by Feldstein.

It should be remembered that the relationship is a long-run relationship. According to equation (3), there seems to be a positive short-run relationship between changes in investment and outward FDI. However, the relationship is not statistically significant at the 5% level.

The detailed results from the VAR analysis are not presented here but are available upon request. They can be summarized as follows. Overall, the results support the use of the single-equation framework. According to the Granger causality tests, outward FDI and domestic saving Granger-cause domestic investment. (Furthermore, domestic saving Granger-causes outward FDI). According to the Johansen cointegration tests (trace tests) there is a cointegrating relation between domestic investment, domestic saving, and outward FDI. The cointegrating relation is similar to (2). (There also exists a cointegrating relation between outward FDI and domestic saving). According to the long-run exogeneity tests, S/GDP and FDIout/GDP are weakly exogenous in the equation corresponding to equation (3). In the estimation of the unrestricted reduced form of the VAR(2) model, two dummy variables were used (unrestricted) in controlling the special years 1998 and 2000, when FDI outflows increased exceptionally strongly.

The long-run equation (2) can be utilised in the explanation of the movements of the investment ratio. In the equation the saving retention coefficient is very near unity, and the restriction that it equals unity is, according to the standard Wald test, accepted. If we assume that the saving retention coefficient equals unity in equation (2) and use the sample averages of S/GDP and FDIout/GDP for the period 1994-2006, we obtain  $25.2 - 1.18 * 4.9 = 19.4$ . This is very close to the sample average of the investment ratio.

Essentially the same results were obtained when quarterly data over the period 1975:1-2006:4 was used.

The analysis utilising data on the whole economy therefore provides support for the interpretation that the large outward FDI flows are the main reason for the historically weak investment activity in Finland after the depression. Furthermore, this interpretation is consistent with Feldstein's findings (1994).

## **4. THE RELATIONSHIP BETWEEN OUTWARD FDI AND DOMESTIC INVESTMENT: THE CORPORATE SECTOR**

Within Feldstein's (1994) framework the basic reason for the one-to-one trade-off between outward FDI and domestic investment is that FDI outflows reduce financial resources which would otherwise be available for domestic investment. Within the framework it is not necessary to assume that financial resources which are generated in one sector of the economy are used mainly in that sector. However, it is natural to think that, because multinational firms undertake most of outward FDI, FDI outflows, by reducing financial resources available for investment in their home country, affect investment particularly in the business sector of the economy. This interpretation is consistent with the view that the economy-level relationship between outward FDI and domestic investment may mainly reflect the corporate sector-level, or firm-level, relationship between outward FDI and domestic investment.

Feldstein also discusses the relationship between investing abroad and domestic investment within a firm-level framework and points out that sticking to a certain type of corporate capital budgeting may lead to the outcome that a firm's decision to invest abroad reduces its domestic investment (Feldstein 1994, 11-13). Within a firm that has a desired debt-to-capital ratio, retained earnings will largely determine the amount of total funds which are available for capital investments. Obviously, this case is not consistent with the simplest textbook versions of investment decision, or with the assumptions on which, for example, the Modigliani-Miller theorem is based.

In what follows, I repeat the analysis conducted above by using aggregate data on the business sector from the period 1975-2006. (Lack of data was the reason for the use of the shorter period.) The main motivation for the considerations is that the analysis may give a more detailed picture of the macro relationship between outward FDI and domestic investment in Finland.

The business sector includes all corporations except financial corporations, however. This means that data on FDI outflows, investment, saving and value added concern this sector only. Figures 3 and 4 depict the data, and Table 2 summarises it. The data on FDI outflows differs somewhat from the data for the whole economy, because observations for the financial sector have been dropped from the FDI outflow series.

Figure 3 shows that the major factor behind the change in the current account balance in the mid 1990s was the drastic change in the financial balance of the non-financial corporations. Traditionally, Finnish firms were accumulating debt but everything changed after the depression. Both the decrease in domestic investment and the rise in saving contributed to the transformation.

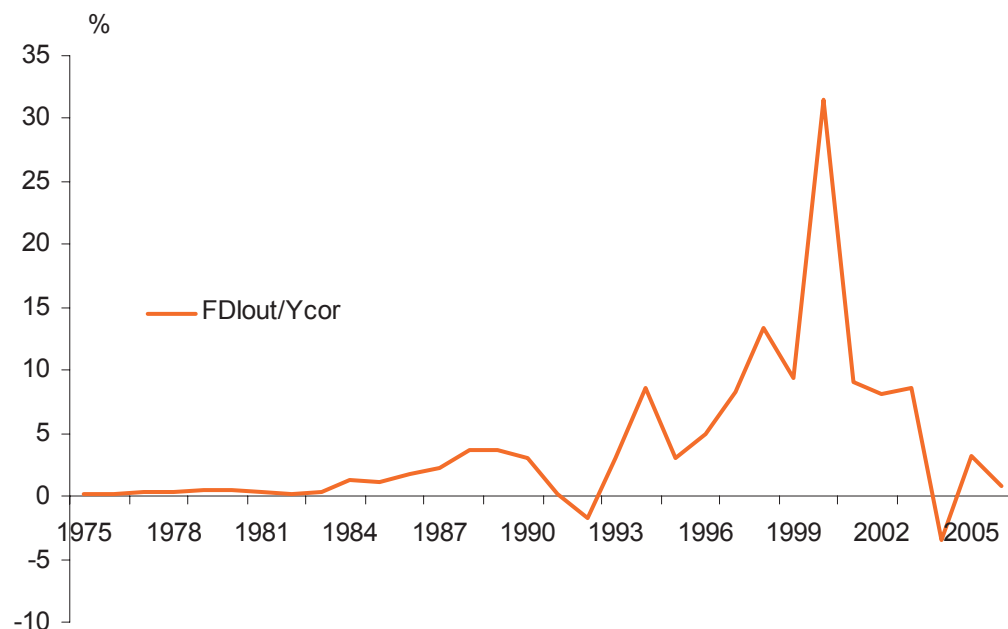
**Figure 3. Investment and saving in non-financial corporations 1975-2006.**



Source: Statistics Finland, National Accounts.

Note: The series depict saving – value added and investment –value added –ratios (in percentages) in non-financial corporations.

**Figure 4. Outward FDI 1975-2006: non-financial corporations.**



Source: Statistics Finland, National Accounts; Bank of Finland, Balance of Payments.

The rise in the saving ratio reflects the drastic change in the functional distribution of income. Without the tax-change-induced alteration in the dividend policy, which led to a substantial increase in the dividend yields, the rise in the saving rate would have been even larger.

**Table 2. Investment, saving and outward FDI: the corporate sector.**

|             | 1975-1990 | 1994-2006 |
|-------------|-----------|-----------|
| I/Ycor      | 25.9      | 19.1      |
| S/Ycor      | 20.3      | 28.6      |
| (S-I)/Ycor  | -5.6      | +9.5      |
| FDIout/Ycor | 1.2       | 8.1       |

Source: Statistics Finland, National Accounts; Bank of Finland, Balance of Payments.

The results from the replication of the econometric analysis by the use the data on the business sector are in accordance with the results reported above. Outward FDI, investment and saving are cointegrated. The co-integrating relationship which is obtained when the single-equation approach is used is as follows.

$$(4) \quad I/Y_{cor} = 1.12S/Y_{cor} - 1.12FDIout/Y_{cor}$$

$$(6.81) \quad (-1.93)$$

$$\text{Wald's } \chi^2(2) = 63.4^{**}$$

The error-correction model which is associated with equation (4) can be written as

$$(5) \quad \Delta(I/Y_{cor})_t = -0.04\Delta(I/Y_{cor})_{t-1} + 0.27\Delta(S/Y_{cor})_{t-1} + 0.17\Delta(FDIout/Y_{cor})_{t-1} -$$

$$(-0.31) \quad (1.72) \quad (2.05)$$

$$-0.18(I/Y_{cor} - 1.12S/Y_{cor} + 1.12FDIout/Y_{cor})_{t-1}$$

$$(-2.55)$$

$$T = 30 \text{ (1977-2006)}, \quad \sigma = 2.6, \quad D-W = 1.95$$

$$\chi^2_{NORM}(2) = 1.67, \quad F_{AR}(2,24) = 0.14, \quad F_{HET}(8,17) = 0.68, \quad F_{ARCH}(1,24) = 0.54.$$

The model passes the normal diagnostic tests. In the long-run equation (4), the coefficients do not differ statistically significantly from unity. Interestingly, there seems to be a statistically significant (at the 5% level) positive short-run relationship between changes in domestic investment and outward FDI.

The existence of the one-to-one trade-off is therefore confirmed when data on the corporation sector is used. Furthermore, most of the decline in the investment rate in the corporate sector can be

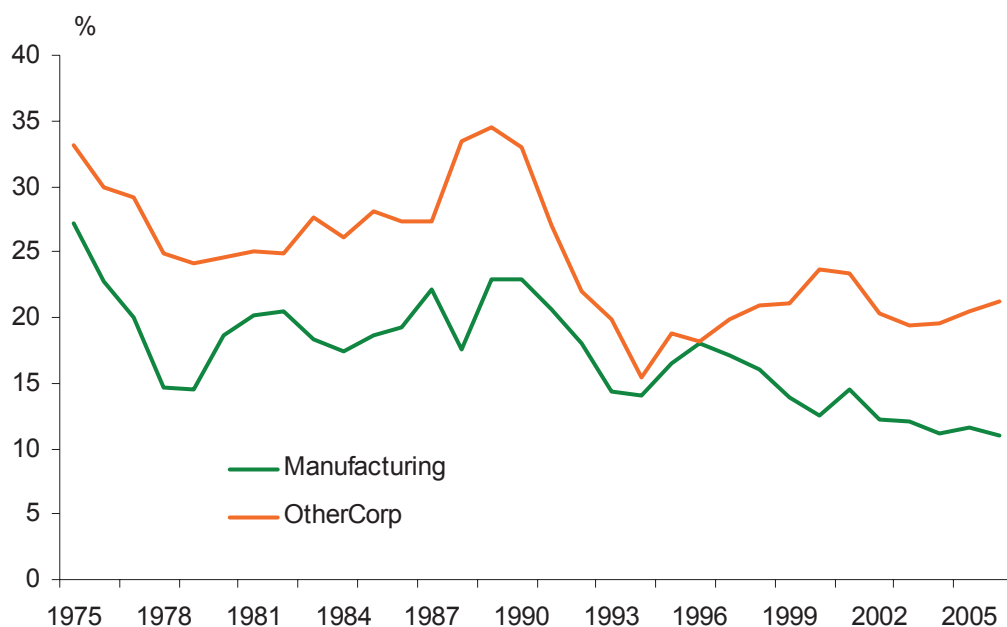


explained by the rise of outward FDI flows. If we assume that the coefficients in equation (4) equal unity, we obtain, by using the averages for the period 1994-2006 in Table 2,  $28.6 - 8.1 = 20.5$ , which is not much higher than the sample average of the investment rate.

Because most of the FDI outflows are directed to the manufacturing industry, the decrease in investment activity should be more pronounced in manufacturing. Figure 5 shows that this is the case.

Still, the interpretation of the causes of the drastic and permanent decrease in domestic investment activity may be richer in nuances. The Finnish corporate income tax system was altered in the early 1990s, which most probably affected investment incentives among Finnish corporations. For example, the incentives to use depreciation allowances as a means of relieving profit taxes were weakened. The previous corporate income tax system was one reason for the internationally high investment rates in Finland during the 1960s, 1970s and 1980s. However, it should be remembered that changes in taxation should have similar effects on firms operating in various industries. The diverging patterns depicted by Figure 5 cannot be explained by changes in tax laws. The decline in investment activity in manufacturing has been drastic.

**Figure 5. Investment rate in manufacturing and in the rest of the corporate sector 1975-2006.**



Source: Statistics Finland, National Accounts.

## 5. CONCLUSIONS

This paper has shown that the decline in investment activity in Finland after the depression can be explained by a strong rise in outward FDI flows. The analysis was based on the use of macroeconomic data and the framework which was utilised by Feldstein (1994). Within that framework outward FDI reduces domestic investment because it decreases financial resources which are available for domestic investment. Feldstein's main finding (1994) was that there is a one-to-one trade-off between outward FDI and domestic investment. A dollar outflow of outward FDI decreases domestic investment by the same amount in the long run.

Essentially the same result could be obtained by the use of Finnish macroeconomic data from the mid-1960s till 2006 and by the estimation of dynamic investment equations which explain changes in domestic investment as a function of changes in domestic saving and outward FDI. Furthermore, domestic investment, domestic saving, and outward FDI are cointegrated with domestic saving and outward FDI shaping the fluctuations of domestic investment activity. The result was robust in the sense that it could be obtained by the use of both annual and quarterly data on the whole economy and annual data on the corporate sector of the economy.

There is, however, need for further analysis. Further checks of robustness could be done by the use of other data sets, for example, microdata. This kind of attempt is worth undertaking although the analysis would be more partial than a macro analysis. Even though one would obtain, by using firm data, the result that investing abroad reduces domestic investment, it is possible that on the level of the whole economy that kind of relationship does not hold because some other firms operating at home may make use of the investment possibilities which those firms investing abroad neglect.

Overall, Finland is an interesting case because, despite the decline in domestic investment activity, economic growth has been one of the most rapid among the old EU countries. This means that the accumulation of fixed capital has played a substantially smaller role in the growth process than in the past. Furthermore, the relatively strong growth has been accompanied by a historically, and comparatively, big surplus on the current account.

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