Fiscal consequences of greater openness: from tax avoidance and tax arbitrage to revenue growth *

Jouko Ylä-Liedenpohja
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Jouko Ylä-Liedenpohja
Independent analyst, Helsinki, and CESifo
jouko.yla-liedenpohja@kolumbus.fi

Valtion taloudellinen tutkimuskeskus
Government Institute for Economic Research
Arkadiankatu 7, 00100 Helsinki, Finland
Email: etunimi.sukunimi@vatt.fi

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Contents

1. Introduction 1

2. Major sources of inefficiencies 3

3. Tax avoidance in entrepreneurial compensations 5

4. Imputation system and tax arbitrage 7

5. Tax base reforms – dual income taxation 9

6. Towards double taxation of dividends 11

7. Conclusion 13

References 15
1. Introduction

Deeper and enlarged economic integration increases international mobility of factors of production and therefore - so the argument goes - constrains the taxing power of national states. In particular, capital is regarded as having a tax base that restlessly seeks lower tax rates. Source-based taxes on real capital were long ago doomed to a race to the bottom, with residence-based taxes on income from financial capital having some hope to remain, subject to national states competing for residencies of the wealthy. The core literature was surveyed by Keen (1996). The preservation of the Diamond-Mirrlees production efficiency requires the equalization of pre-corporation tax returns on investments across countries. That is attained by taxing investment returns in the investors’ residence countries, which (i) guarantees capital export neutrality – a resident of a particular jurisdiction faces the same pre-tax cost of capital on investment irrespective of the jurisdiction in which the funds ultimately will be invested – and (ii) implies efficiency: output cannot be increased by reallocating investments across jurisdictions.

Corporation tax is the major source-based tax on capital, having visible tax competition as regards the statutory rate. Among the EU-15 countries it declined from about 50 per cent in the beginning of the 1980s to about 31 per cent by 2003, ranging in 2008 still from 37 per cent in Italy to 12.5 per cent in Ireland. The 2008 average rate of corporation tax of all EU countries was about 24 per cent. The revenue from corporation tax is more stable in relation to the GDP, slightly increasing over the past decade. Clausing (2007) documented that it was a general trend in the OECD countries, from about 2 per cent in 1980 to 3 percent in 2000. Piotrowska and Vanborren (2008) base their results on newer data and suggest that corporatization is the driving factor behind the observed trend. Yet the experience of Finland is spectacular in the latter half of the 1990s as shown in Table 1. The statutory rate of corporation tax on undistributed profits was more than halved from the first half of the 1980s, but revenue from corporation tax more than doubled as a ratio to the GDP. Because of partial deductibility of dividends in the 1980s, the effective corporate tax rate on distributed profits did not decline; cf. numerical illustration in Ylä-Liedenpohja (1984).

Greater openness of economies itself improves efficiency via increased mobility of resources, both real and financial capital in particular, but also facilitates tax avoidance and tax arbitrage. To prevent loss of tax revenue, a more neutral system of taxing income from capital is required that further enhances efficiency of the existing capital stock and allocation of investment. Three major reforms concerning taxation of corporations and income from capital in Finland are surveyed with implications for tax revenue and how the opportunities for tax avoidance have been restricted or eliminated in the business sector in particular.
Table 1. Revenue from corporation tax, value added tax (VAT), tax on earned income, tax on income from capital and loss of tax revenue from deductibility of interest on housing and non-business loans as a percentage of GDP

<table>
<thead>
<tr>
<th>Year</th>
<th>Corporate</th>
<th>VAT</th>
<th>Earned</th>
<th>Capital</th>
<th>Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>1.5</td>
<td>8.7</td>
<td>17.4</td>
<td>0.9</td>
<td>1.0</td>
</tr>
<tr>
<td>1995</td>
<td>2.2</td>
<td>7.3</td>
<td>16.6</td>
<td>0.8</td>
<td>0.5</td>
</tr>
<tr>
<td>2000</td>
<td>5.9</td>
<td>8.4</td>
<td>14.4</td>
<td>1.3</td>
<td>0.3</td>
</tr>
<tr>
<td>2004</td>
<td>3.5</td>
<td>8.9</td>
<td>13.3</td>
<td>1.3</td>
<td>0.2</td>
</tr>
<tr>
<td>2005</td>
<td>3.3</td>
<td>9.1</td>
<td>13.4</td>
<td>1.3</td>
<td>0.2</td>
</tr>
<tr>
<td>2007</td>
<td>4.0</td>
<td>8.7</td>
<td>12.6</td>
<td>1.5</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: own calculations, Statistics on income and property and Statistical Yearbook of Statistics Finland; Tax Statistics of the National Board of Taxes.

Legend: The development of the tax burden of earned income vis-à-vis capital income is since 1987, the year the government announced its intention to reform direct taxation. In 1987 the VAT base included gross investments in non-manufacturing sectors and revenue from the VAT consists also of a levy on pharmacies and a tax on insurance premia. In 1995 interest deductibility was in a transitional phase, interest on the end-of-1992 housing debt being deducted at the tax rate on earned income. Tax on capital income includes wealth tax in 1987–2004, source tax on interest income in 1995–2007, and in the year of 1987 income tax of unincorporated companies to attain comparability with the DIT years.

The structure of the paper is as follows. The sources of pertinent inefficiencies of the Finnish economy during the 1980s, including its tax system, are briefly described in the next section. Tax avoidance in entrepreneurial compensations before the reforms is analysed in section 3. The measures brought by the 1990–2004 imputation system to broaden the tax base of capital income are explained in section 4 as well as why the system was initially sensitive to revenue loss from tax arbitrage. The adoption of Nordic dual income taxation (DIT) since 1993 and its tax base reforms are described in section 5, including taxation of entrepreneurial compensation in DIT. The replacement of imputation credits with partial double taxation of dividends since 2005 and the reform of the corporate tax base are shortly described in section 6. Section 7 concludes with a discussion of the resulting improved efficiency and contrasts the observed structure of increased tax revenue to remaining inefficiencies.
2. Major sources of inefficiencies

Finland has always been vitally dependent on imports and exports, an open economy in that sense, but many sectors of economic activity were regulated until the mid 1980s. Cartels, except bidding cartels, were allowed if they were registered with the authority. The Finnish Competition Authority was established only in 1988 to promote effective economic competition. A particular source of inefficiencies was the bilateral trade with the Soviet Union. Its share of Finland's foreign trade had approximately doubled from the 1960s to about a quarter in the 1980s. The Soviets exchanged their oil for finished goods. Therefore the oil price hikes of 1973 and 1979 were initially positive demand shocks in Finland, turning later on into internal cost crises. That of the 1980s was particularly fuelled by foreign borrowing. The bilateral trade was in huge difficulties already in 1990 and collapsed thereafter.

The bulk of lending took place at administratively set rates of interest that always did not even match the rate of inflation. The employers have a right to re-borrow their contributions to the mandatory employee-pension schemes. Because the pension funds are non-taxed, but interest was deductible in business income taxation at the rate of 60–62 per cent on undistributed corporate profits, the post-tax real cost of such credits was negative, creating huge incentives for overinvestment in the existing operations. Similar inefficiencies were associated with the regulated branch of bank-intermediated financing. The deposit rates of interest were set by the banking cartel, but subject to certain conditions interest income was tax-free to the households. Bank of Finland regulated the average level of interest rate on the loan books of the banks. Because of interest deductibility, there was chronic excess demand for borrowing at the regulated rate of interest, the banks allocating the funds to their favoured customers. The interest rate in the commercial paper market was market determined and interest income on the money market deposits was subject to ordinary income tax.

Financial markets were relatively rapidly opened to international actors in the 1980s. The market for debt finance of businesses was first totally liberalized during the course of 1986. In the equity market, listed companies were allowed to issue unrestricted share certificates that could also be owned by foreign investors. Record proceeds from new issues were raised in the years of 1985–88. All remaining ownership restrictions of companies were eliminated since 1993 as part of Finland’s entry process to the European Economic Area in 1994 and to the EU a year later.

Generous depreciation allowances, immediate expensing in development regions, transfers to investment funds, i.e., expensing an asset before its purchase, and write-downs of inventories in business income taxation and an allowance for capital income in personal taxation contributed to relatively modest average, but
high marginal tax rates on income from capital in the mid 1980s. Because such a tax base was combined with high statutory tax rates and high rates of inflation, the businesses were forced to invest in real estate and machinery to hedge against inflation and the taxman, called “tax pressure investments”. Ylä-Liedenpohja (1984) demonstrated that some projects could earn even a negative pre-corporation tax real rate of return, but yet a positive real rate of return to the owners. Inefficiencies were indispensable.
3. Tax avoidance in entrepreneurial compensations

The old-time game was to finance investment with borrowing and to transform any investment returns exceeding interest deductions into tax-free income, mostly into realized capital gains on either movable capital as shares owned at least five years or fixed capital as real estate owned at least ten years. Time deposits generating non-taxed interest income served as partial collateral to loans. The loopholes were the explanation for the acceptance of the steep progressivity in taxation of ordinary income, i.e., they were the air vents by which the tax system breathed. The process to close the loopholes had ebbs and flows. For example, amidst the period of abruptly tightening taxation of ordinary income in 1973, the politicians eliminated taxation of imputed income from owner-occupied housing, except from dwellings of the highest tax values, to realize the subsequent year that interest deductibility need to be restricted accordingly. Realized capital gains were gradually subjected to income tax since 1985. Since 1983, entrepreneurs operating unincorporated businesses faced a minimum of taxable earned income against which depreciation allowances, inventory write-downs and interest expenses on business borrowing could not be deducted. It was not until DIT that the loopholes were closed by a consistent system and by not allowing deductibility of debt interest in unincorporated businesses on the part of debt which accounts for negative net worth because it reflects personal borrowing from the business sphere.

Prior to the imputation system, introduced in 1990, distributions of profits were partially deductible from the corporation tax base, explained in Ylä-Liedenpohja (1984), and in personal income taxation dividends were added to the owner's ordinary income. Therefore the double-tax rate of dividend income rose considerably above the tax rate on labour income if the same amount were raised as waged or salaried income from the company. Thus the necessary income for an entrepreneur's family living was taken from the corporation in the form of wages and salaries. Even the marginal tax rate on wage income was less than the double-tax rate of dividends. Therefore wealth tax was paid by the entrepreneurs from taxable labour income and not from post-tax dividends as in case of passive portfolio investors. In a going concern, all tax incentives distorted the means of entrepreneurial compensation in favour of wages and salaries against dividends, i.e., economic income from capital was transformed into legal labour income.

The old tax system also distorted taxation of income from unincorporated companies in respect of dividends and discriminated against incorporations. Partnerships and limited liability partnerships were separate tax entities, but their income was divided in two. One half was allocated to the company and the other half to the partners, and both were taxed at the progressive rate schedule of ordinary income. DIT ended separate taxation of unincorporated companies as well as the set up of such companies.
But, the old tax system favoured realized capital gains both over dividends and over labour income as a means of entrepreneurial compensation. The taper relief of long-term realized capital gains on both real estate and corporate shares was made more stringent since 1989. Thus the total effective tax rate on such gains depended heavily on inflation. Because of liberal tax depreciations and write-downs, many businesses were in the state of permanent tax exhaustion, analysed in Ylä-Liedenpohja (1984). They could not claim all those deductions which they were entitled to, i.e., they were in a state equivalent to a permanent stock of tax losses carried forward; businesses could reinvest their profits in machinery and structures without paying any corporation tax. Therefore the total effective tax burden on entrepreneurial compensation was the lowest if one of the same entrepreneur's companies was sold.
4. Imputation system and tax arbitrage

Though the economy was booming at the end of the 1980s, corporation tax receipts were not, because companies increasingly allocated their non-taxable income to dividends to benefit from their partial deductibility from the corporate tax base. Another source that grew in importance was foreign-source dividends because Finland uses the exemption method to eliminate international double taxation. At the same time, pension insurance companies and other pension schemes were allowed to increase the portfolio share of equities, and foreign ownership emerged. The leaking corporation tax base together with the increasing prevalence of non-taxed ownership meant that income from corporate capital was less heavily taxed than once. The problem was solved in two phases. The imputation system was adopted from the beginning of 1990 and the Nordic DIT system from 1993. Both phases contained sizeable measures of tax-base broadening.

The imputation system was implemented with an equalization tax as its essential element and by not reimbursing the imputation credits on dividends to the non-taxed institutional owners. The equalization tax was determined by the distributed dividends to adjust the company-level taxes up to the imputation credits on the distributions if they fell short of it. The 1990 package also reduced the corporation tax rate. Real consequences of this phase were not really observed because the deep 1991–93 depression emerged with its disastrous effects on the profitability of enterprises.

Two kinds of revenue-eroding tax arbitrage emerged. Because non-taxed institutions and foreign owners were not entitled to the imputation credit, they sold their dividend right to another party for a substitute dividend as to the Finnish banks, short of taxable income during the crisis. The imputation credit was in principle shared by the two parties. Because the corporation tax rate was 40 per cent in 1990–92, the imputation credit was 66.67 for a dividend of 100. If the parties agreed on a substitute dividend of 130, the buyer’s net gain was 36.67 to shelter its losses. Erosion of tax revenue ended when the buyer could no longer deduct that part of the substitute dividend which represents the original dividend to the non-taxed party. The substitute dividend also was grossed up with the imputation credit if the seller was a taxpayer in Finland.

The other kind of tax erosion emerged in mergers. All companies were not loss making in the beginning of the 1990s. A profitable company sold its proper business assets so that the shell company held the cash and the undistributed profits on which corporation taxes had been paid since the imputation system became effective. Therefore it paid for a loss making company to buy the shell company, distribute its cash, deduct losses against the pre-tax dividend and ask the taxman to reimburse the imputation credit because the buyer’s taxable profit
was zero. With the imputation credit being two thirds of the dividend, a business loss of 100 could be set against a pre-tax dividend of 100, with the dividend of 60 paid out of the cash of the shell company and the tax administration sending the imputation credit of 40 to the buyer’s bank account.

Two major rulings ended tax motivated business transactions. If the majority ownership of a company changed, its tax surpluses were lost, i.e., previous corporation taxes on undistributed profits of the imputation period could no longer be used to match the imputation credits without equalization tax. And more importantly, the tax administration stopped sending money to the buyers of the shell companies so that the imputation credits could only be used against the corporation tax liability of business activity.

Why did the owners of the shell company not distribute the dividends to themselves? Full imputation of corporation tax on distributions implied a change in the relative tax ranking of entrepreneurial compensation from wages toward dividends, because both channels were taxed at the same progressive schedule of ordinary income in 1991–93, but dividends were not subject to an employer’s social security tax while long-term capital gains remained tax favoured over dividends. Thus the owners preferred to sell their companies. The owners of the loss-making companies could not pay themselves such high wages as the owners of the profit-making companies. Therefore, they faced a different tax rate even on their pre-tax dividends which contributed to the profitability of tax arbitrage.

The growing importance of international operations and foreign ownership of the listed companies during the 1990s meant that equalization tax penalized flow-through dividends, foreign-source dividends distributed to foreign-destination recipients who were not entitled to the imputation credit of Finland. That is why already since 1993, together with the lifting of the restrictions of foreign ownership, there was an attempt to exempt flow-through dividends from equalization tax though that was truly effectively achieved since 2001. But, equalization tax was effective for domestic destination dividends. Therefore its existence may have contributed to the revenue growth from corporation tax during the latter half of the 1990s, not directly, because revenue from equalization tax amounted only to about EUR 150 million, but indirectly. Kari and Ylä-Liedenpohja (2005) showed that, because of an equalization tax, the parent company may transfer price foreign profits to its country of residence, even from a country with a lower rate of corporation tax. Parent companies may also have repatriated foreign-source income, invested it in Finland and generated taxable income to avoid paying equalization tax on their domestic-destination dividends. The last year of equalization tax was 2004.
5. Tax base reforms – dual income taxation

DIT was introduced in the trough 1993 of depression, maintaining the imputation system. It replaced global income taxation, where taxable income is subject to a single progressive tax schedule, with taxation of capital and labour income separately. DIT divides personal income into capital income and earned income as labour income, pensions and social benefits. Earned income is taxed at a progressive schedule while income from capital is taxed at a proportional rate. Rental income, realization gains on real estate, realized capital gains and dividends from listed companies are always treated as income from capital. Dividends from non-listed companies and income from unincorporated businesses are split into capital income and earned income.

Reacting to the move of Sweden, DIT involved a cut of the corporation tax rate to 25 per cent which also was chosen to be the tax rate on personal capital income. Equally blunt measures broadened the tax base. In business taxation all schemes that offered accelerated write-downs of assets were eliminated, but there was a small, temporary investment tax credit during the years of crisis. Realized nominal holding gains of all assets, including controlled companies (CC), became fully taxable. Taxation of registered unincorporated companies as separate tax-paying entities ended. The previous system of corporate taxation was in fact progressive for smaller companies. Because the taxable income of each company was assessed separately, even groups were typically made up of tens of separate companies to attain a lower effective rate of corporation tax on group income.

The tax base of personal capital income was similarly broadened, eliminating opportunities for tax avoidance in the previous tax system. Nominal interest on bank deposits and publicly quoted bonds became subject to a final source tax at the rate on personal capital income, implying a high tax rate on real interest income, but tax neutrality of debt as a source of business finance. Also, interest expenses on owner-occupied housing became deductible only at the tax rate on capital income. Prior to DIT the maximum deduction could contain interest on pure consumption loans. Tax revenue loss from interest deductions has decreased remarkably in twenty years; cf. Table 1. The deductibility of life assurance premia was eliminated, too. Life assurance contracts with savings are taxed as other categories of income from capital and in certain cases as earned income when the employer pays the premia. Tax treatment of voluntary pension savings was changed not until 2005 so that their tax credit is earned at the tax rate on capital income.

The total tax rate on distributed profits by listed companies was consequently dramatically reduced in DIT. Because the imputation credit of dividends fully covered the underlying corporation tax, distributed profits were taxed once at a
rate that was below the marginal tax rate of wages for most shareholders. Nominal capital gains from corporations were now double taxed because they did not benefit from the imputation credits. Taper relief after ten years’ ownership remained that mitigated the taxation of purely inflation-induced gains. The rule also applies to real estate.

DIT introduced a differential tax treatment of distributions by non-listed companies from distributions by listed companies. Dividends from non-listed companies are split into income from capital and earned income, using a presumptive rate of return on net business assets. The split rule defines the maximum that is capital income for tax purposes. When DIT was legislated, the yields on long-term government bonds hovered around 14 per cent. Therefore the presumptive pre-tax rate of return was set to 15 per cent. Hence non-listed companies were no longer forced to invest their profits in their existing operations, but could distribute a post-corporation tax dividend of 11.25 per cent on their net assets as capital income. And, the freed funds could start seeking new profit prospects elsewhere. This was important for the owners of old established businesses which had net assets. The presumptive rate on net assets was lowered and the rate of corporation tax was raised in 1996.

Entrepreneurs without net assets in going concerns rewarded themselves in the form of dividends taxed as earned income in addition to a small wage up to the threshold at which the marginal tax rate on wage attains the tax rate on personal capital income. Nominal capital gains from dissolving or from a sale of a non-listed company were similarly double-taxed as in case of listed shares. If the sold company is treated as an integral part of a person’s professional practice, the realization gain will be split into capital income and earned income.
6. Towards double taxation of dividends

The 2005 changes to the system of taxing income from capital were motivated by international developments. The road chosen by Germany influenced policymakers. The imputation credits of dividends were lifted since 2005 and dividends from listed companies partially (70 per cent) subjected to personal tax. The tax rate on personal capital income was lowered to 28 per cent and the corporation tax rate to 26 per cent so that for the first time the two tax rates were not the same. The move was motivated by the tax systems of the EU enlargement countries.

Part of the package was to eliminate the rudimentary wealth tax, justified by its small revenue of 120 million because of easy tax evasion. But, at the margin its effect was formidable, reminiscent of the 1980s when every single tax in isolation was progressive and, due to specific allowances, each category of capital income was separately progressively taxed. The wealth tax burdened share ownership, but not financial assets subject to the source tax on interest income. Consider a portfolio of equities the post-corporation tax real rate of return of which corresponds to that in international financial markets, equal to 6.7 per cent by Dimson, Marsh and Staunton (2002). With a 26 per cent tax rate, the pre-corporation tax real rate of return on the physical assets is nine per cent. The market value of the shares is the equilibrium price-earnings-multiplier, the often quoted 15, times the post-tax return, i.e. $15 \times 0.067 = 1$, meaning Tobin's $q = 1$. When the effective rate of wealth tax was 0.9 per cent, it represented a ten per cent tax on the pre-corporation tax return on the Finnish assets, but implied a tax rate of $0.009/0.067 = 0.134$ on the post-corporation tax real return the investor earns. In that respect it was quite a sizeable tax on private domestic ownership in a world dominated by tax-exempt collective pension schemes.

The most important change concerning the tax base of corporations was no longer to tax realized holding gains of CC’s nor to deduct their losses against business income. Most likely, Finland was a dumping place of loss-making CC's, an indication of which may be that the stock of deductible tax losses carried forward started to decrease in 2004 when the reform was announced and made immediately an effective rule. The other important change was to include dividends on long-term investments of insurance companies and banks to the tax base because investing is regarded as a branch of their core business.

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1 Assets of family businesses were assessed in wealth taxation more leniently, justified that dividend tax has not been paid on undistributed corporate profits.

2 Tobin's $q$ is defined by the ratio of the market value of an asset to its replacement cost.

3 Because the alternative financial asset is not subject to wealth tax, the wealth tax rate must be multiplied with the double-tax rate of undistributed profits to get its effect on the pre-corporation tax cost of capital (Ylä-Liedenpohja 1978). Hence this kind of wealth tax represents tax upon tax.
The current presumptive rate of return is nine per cent for non-listed companies, applied to the year-opening value of net assets since 2006 while in 1993–2005 the split based on the year-end values. Because the presumptive rate is a nominal post-corporation tax concept, it corresponds to the Dimson-Marsh-Staunton average real rate of return on international equities plus the equilibrium rate of inflation and guarantees that, on average, the reward for an entrepreneur's risk-taking will be taxed similarly as households' passive investments in listed companies. 70 per cent of any dividends exceeding the nine per cent maximum of capital income are taxed as earned income. The tax rates on earned income have been reduced during recent years so that already in 2007 operating unincorporated businesses was tax favoured over entrepreneurial rewards as earned income dividends (Ylä-Liedenpohja 2007). However the top marginal tax rate on earned income exceeds the effective tax rate on double-taxed capital gains. Therefore the high opportunity wage professionals may benefit from transforming their labour rewards into taxable realized capital gains if the business of the dissolved or sold company was wide enough, as analysed by Ylä-Liedenpohja (2007).

The first EUR 90000 of capital income dividends from non-listed companies has since 2005 been non-taxed. This upper limit is individual specific. Any exceeding amount will be taxed as dividend income from listed companies. Therefore dividends from listed companies received by non-listed companies are partially taxed to effectuate an identical tax rate on dividends as if the shares were directly owned by individuals. Yet if the holding represents over ten per cent of the listed CC, the dividend is non-taxed as are all dividend receipts flowing within the non-listed sector.

The reduction of the corporation tax rate also decreased the pre-tax cost of capital for investments by all companies in Finland. Small portfolio investors experienced their tax rate on dividends to increase, but those previously subject to wealth tax were approximately compensated for by its elimination. In the aggregate, tax incentives for savings and share ownership were diminished, but the relative attractiveness of Finland as a residence of the wealthy did not change.

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4 In case of unincorporated businesses (sole proprietors and partnership members), the presumptive rate of return is 20 per cent (or 10 per cent if so demanded) and it has always been applied to the year-opening value of net business assets. In addition, 30 per cent of their employees’ wage bill being added to their net assets in the split.
7. Conclusion

This paper describes the tax revenue consequences of lifting the barriers to economic integration as part of Finland’s entry to the EU internal market and at the same time joining the international wave of tax reforms that broadened the tax base and reduced the tax rates on income from capital. The reforms restricted or totally eliminated opportunities for tax avoidance, but also initially caused two kinds of revenue eroding tax arbitrage to emerge in the imputation system, analysed in section 4. The relative tax preference for entrepreneurial compensations in going concerns has over the past two decades changed from salaried income toward dividends. Long-term realized capital gains are now double-taxed in contrast to almost nil two decades ago. Today companies report visible profits which are taxed. Funds flow freely from mature industries to newer enterprises via dividends and not via share repurchases or cash takeovers because dividend tax is lighter than capital gains tax. The state of Finland has sold stakes in the publicly quoted state-owned companies and its dividend receipts have grown almost double the rate of the households during the DIT era. Therefore the observed rise of the capital share of the GNP lies in the true opening up of the Finnish economy. Lifting all restrictions of foreign ownership since 1993 and joining the EU consequently eliminated inefficiencies because of the international required real rate of return in investment and divestment activities. A more neutral taxation of income from capital is part of the institutional innovations that contribute to a virtuous circle of a more rapid growth with a smaller investment ratio, down from about a quarter of the GDP at the end of the 1980s to one sixth of the GDP in the recent years.

Two other tax reforms were carried out during the crisis years of the 1990s. A municipal (local) tax on real estate was launched in 1992, raising revenue of 0.5 per cent of the GDP in 2007 and the VAT system was reformed in 1994 from a tax on real investments in non-manufacturing sectors to a consumption tax. Maliranta (2003) reports on increased rate of productivity growth in the manufacturing sector since 1986, i.e., since lifting the restrictions on international borrowing by businesses and since the first phase of loosening the foreign-ownership constraints of Finnish companies. Another surge of productivity growth is linked to the post 1993 years. Maliranta (2005) emphasizes that the phenomenon covers all manufacturing sectors, not only information technology and telecommunication.

A clear shift in the balance of direct taxation has occurred from labour income towards heavier taxation of corporations and capital income though greater openness of the economy would have predicted the opposite development. In reference to Table 1, tax revenue from corporations and capital income, net of revenue loss because of interest deductions, has quadrupled from 1.4 per cent of the GDP in 1987 to 5.6 per cent of the GDP in 2007, including revenue from the
local real estate tax. Revenue from the progressive tax on earned income has correspondingly declined five percentage points. By the *Tax Statistics* of the National Board of Taxes, the income tax burden of the lowest two quintiles with earned income has remained the same (less than one per cent) in proportion to the GDP in 1995–2007 while the earned income tax burden of both the two middle quintiles and the top quintile has decreased by about a quarter.

When labour is internationally a less mobile resource than capital, economics predicts the effective burden from heavier taxation of capital income to lie on labour in such a country in the form of lower wages or loss of jobs (Mintz 1996, for example). However the level of real wages has increased slightly faster in Finland than in Western Europe. Finland uses the additional tax revenue on corporations and capital income partly to maintain a broad poverty trap by paying income-tested social transfers to working-age people. Therefore labour pays such heavier taxes in the form of job destruction; unemployment in 2008 is still higher than in 1990; the fraction of aged 15–64 in labour force is lower, currently about 200000 people either outside it or effectively employed by the Ministry of Labour in its activities in contrast to the year of 1990; and, another 200000 were available if the labour force participation rates of the other Nordics and Switzerland were achieved. Hence there is much scope for improving economic performance in Finland.
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