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Taxation of Financial Claims in Finland

The taxation of income from capital has changed dramatically in Finland since 1985 due to a series of reforms covering corporate and mutual fund dividends, capital gains, interest income, the scope and measurement of taxable income and the level of the tax rates. Among the major goals of the reforms was to establish neutral taxation of the different sources of financing, that is, new share issues, retained earnings and borrowing.

The following surveys the current system¹ of taxing the returns on financial claims emphasizing their economic rather than statutory tax rates. The behavioural equilibrium is conjectured to imply tax indifference of financial and dividend policies in the case of both public and private corporations.

1. GENERAL PRINCIPLES

The most profound difference from the mainstream international practice of taxing income from capital arises from the *dual income tax system* which Finland adopted in 1993 after her Nordic neighbours. It taxes income from capital at a flat rate, currently 28 per cent, separately from earned income (labour, entrepreneurial, pension etc. income) which is taxed under a

* Without implicating, detailed comments from the referee are acknowledged.

1 This does not pretend to satisfy the requirements of a survey on the relevant tax legislation. Ylä-Liedenpohja (1990) gives a historical perspective of the relative taxation of dividends, interest income and capital gains.

progressive schedule of tax rates, ranging from zero to about 60 per cent when the municipal (local)² and state income taxes are added. Dividends, interest, capital gains, and rental income are regarded as income from capital. Special rules apply to how income from sole proprietorships and partnerships and dividends from private corporations are divided into capital income and earned income, studied in Sections 7 and 8 below.

The measurement of taxable income from capital is based totally on a nominal concept, uncorrected for any effects of inflation. Also, the opportunities for accelerated depreciation charges in excess of ordinary wear and tear and obsolescence are minimal today.³ Realized capital gains are taxed, realized losses being deductible from gains within the same source of income on the year of realization and during three subsequent years. No distinction is made between short-term and long-term capital gains except for assets acquired in 1989 and earlier (after) 50 (30) per cent of the realization revenue can be deducted as their acquisition cost.

The rate of the corporation income tax equals the flat tax rate on income from capital. The corporation tax paid by a domestic corporation is fully credited to the shareholders on the distributed part of profit. Call it the *tax credit system*⁴. Therefore dividends carry no additional tax at the individual investor level. The operation of the system, in case of the whole post-tax profit being declared as a dividend, is illustrated by a numerical example in Table 1. Indi-

TABLE 1. Operation of the corporation tax credit system

A corporation:	
pre-tax profit	100
corporation tax	28
post-tax profit	72
The shareholders are taxed on	
+ the declared dividend	72
+ tax credit on dividend	28
= total taxable income	100
Their tax liability is	
⇒ capital income tax	+28
- tax credit	-28
= additional personal tax	0

2 Among the municipalities the range of the tax rates is 4.75 percentage points in 1997.

3 In rare cases does the present value (PV) of the tax depreciation charges exceed the PV of the true economic depreciations. Even then it is well below the actual investment expenditure except for intangible investments as schooling, advertising and R&D, which are expensed immediately. Ylä-Liedenpohja (1984) contains a detailed analysis of the earlier system of investment incentives.

4 This is used internationally since the French *avoir fiscal* or the British imputation system says nothing to an American.

vidual investors may also be liable to the wealth tax, which in 1997 is 0.9 per cent on taxable wealth (financial assets, business property, owner-occupied housing and other real estate situated in Finland) exceeding 1.1 million markkas. The wealth tax applies also to the permanent Finnish establishments (branches) of the foreign companies.

2. INTEREST INCOME

The tax on nominal interest on bonds and bank deposits is a source tax for domestic households.⁵ They receive interest net of the source tax and need neither declare these assets in their tax returns nor pay the wealth tax. Domestic firms receive interest gross of tax. Foreign investors are taxed in their countries of residence and are not liable here for any tax on interest earned in Finland unless their debt claim is regarded as an equity stake for tax purposes.

Interest income channelled via mutual funds investing in interest bearing assets is taxed as regular capital income at the flat rate on the amount distributed by the fund and on the nominal realization gain when the final investor realizes his shares in the fund. The mutual fund itself is not taxed, but it must withhold the flat tax on its own distributions and report all share purchases and realizations to the tax authorities. This applies also to the international funds marketed in Finland. Hence shares in the bond and money market mutual funds are subject to the wealth tax above its tax threshold.

Since the flat tax on income from capital is levied on nominal interest income, the economic or effective tax rate on real interest income m_b differs from the statutory flat rate τ . Let

- i = rate of interest
- π^e = rate of expected inflation
- τ = statutory flat tax rate on income from capital
- r^e = expected pre-tax real rate of interest, and
- s^e = expected post-tax real rate of interest.

Using the definitions $i = r^e + \pi^e$ and $s^e + \pi^e = (1-\tau)i$, the formulae for the effective tax rate on interest income are

$$(1) \quad m_b = \frac{\tau i}{i - \pi^e} = \frac{\tau (r^e + \pi^e)}{r^e} = \frac{\tau (s^e + \pi^e)}{s^e + \tau \pi^e}$$

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The discrepancy of the economic tax rate from the statutory one is illustrated by the following example, representative of the June 1997 situation. Let one year's bank deposit offer a

⁵ Interest on most personal checking or similar purpose accounts is tax free.

3 per cent nominal interest rate and let one-year rate of expected inflation be 1.5 per cent, which is the average of the 1997 and 1998 inflation forecasts of ETLA, the biggest non-governmental economic forecasting institute. These give for $m_b = (0.28)/1.5 = 0.56$, that is, double the statutory tax rate. The measured consumer price inflation may overstate the true rate of price inflation.⁶

However, today's inflation is extremely low by historical standards. One may insert ones favourite parameter values, which are representative from a longer term perspective (borrowing is a long-term decision), into formula (1) and deduct 1.5 percentage points for the overstatement of true inflation rate and yet observe that the economic tax rate of real interest income is most likely in the range of 50 to 60 per cent.

3. VALUATION OF FIRMS

When valuing Finnish companies, the gains from leverage are zero because the companies deduct interest at the same rate ($= \tau_c$) as the individuals are taxed for it ($= \tau_p$). Table 2. presents the simplified income statement of a firm and the break-down of cash flows available to the investors.

TABLE 2. Value increment of debt under the tax credit system

Profit before interest and tax	X
Interest	B
Profit before tax	X - B
Corporation tax	$(X - B)\tau_c$
Profit after tax	$(X - B)(1 - \tau_c)$
Cash flows to the investors	
- debtholders	$B(1 - \tau_p)$
- shareholders	$(X - B)(1 - \tau_c)$
- total cash flow	$X(1 - \tau_c) + B(\tau_c - \tau_p)$
Capitalize X $(1 - \tau_c)$ @ k^* (the post-tax required rate of return)	
Capitalize B $(\tau_c - \tau_p)$ @ $k_d(1 - \tau_p)$ (the post-tax cost of debt)	
Value increment of perpetuity	$B(\tau_c - \tau_p)$
arising from debt	$k_d(1 - \tau_p)$
is zero because of $\tau_c = \tau_p = \tau$.	

⁶ This derives from the well-known problems of not taking properly into account (i) quality improvements and (ii) rapid initial price declines of new product innovations before their budget share is large enough to make them representative expenditure items in a consumer's budget for the calculation of price indices, the decision of which is based on expenditure surveys after too long intervals.

The post-corporation tax operating profit $X(1 - \tau_c)$ is also the net-of-personal-tax declared dividend in the tax credit system⁷ when the corporation tax is fully credited to the shareholders. Therefore the post-corporation tax risk-adjusted discount rate k^* , to capitalize the unlevered cash flows of the firm, is also the post-personal tax one. The cash flow available to the debtholders must be evaluated at the same post-personal tax stage. That is why $B(1 - \tau_p)$ is discounted at the post-personal tax rate of interest $k_d(1 - \tau_p)$.

As it appears from Table 2., the value of the firm under the system of full tax credit for the corporation tax is consequently obtained by capitalizing the net-of-corporation tax operating profit at k^* , the net-of-tax discount rate, without any correction for the tax shield of debt interest deductions.

4. MINIMUM CORPORATION TAX ON DISTRIBUTIONS

For good administrative reasons, the tax credit on dividends is granted to all the shareholders who are tax liable and have a domicile in Finland. It requires a minimum corporation tax equal to the tax credit in order not to create a money machine for tax arbitrage. As is obvious from Table 1., the minimum tax is

$$\frac{28}{72} \times \text{declared dividend} = \frac{7}{18} \times \text{declared dividend}.$$

If the actual corporation tax paid exceeds the minimum, a tax surplus is created. If the declared dividends exceed the post-tax accounting profit, the past tax surpluses can be used during a period of up to 10 tax years. Thereafter they are lost permanently, which also happens if the majority of the shares changes ownership during the tax year when the surpluses arose or any later year.⁸

An additional feature is that the tax-exempt institutions cannot claim the tax credit on their dividend receipts. Together with the minimum tax it ensures that all tax-exempt institutions face an effective tax rate of at least 28 per cent on the distributed corporate profits. The mutual funds being tax-exempt are not entitled to the tax credit, either. Dividends channelled via the mutual funds to the household sector or back to the corporate sector⁹ are therefore

⁷ This assumes crucially that the timing of the profit distributions does not matter for total tax liability, which will be relaxed in Section 6.

⁸ The same rules apply to the utilization of tax losses, i.e., to negative taxable income.

⁹ The corporation receives the tax credit on its dividend receipts from the rest of the domestic corporate sector, but not on those from abroad.

double-taxed in the classical sense since both the dividend and the nominal realization gain of the shares of the fund are taxed as income from capital at the individual investor level.

Foreigners investing in Finnish shares cannot claim the tax credit on dividends from the Finnish tax authorities, either.¹⁰ In addition, a source tax may be withheld on dividends distributed abroad. The source tax varies according to the bilateral tax treaties from 0 per cent (France) to 28 per cent, the most common being 15 per cent as for the US residents.¹¹ The source tax is also the reason why, according to the financial press, foreign tax-free institutions, mutual funds and pension funds, avoid Finnish dividends by selling cum and buying ex or by arranging a repo deal around the ex-dividend day¹² with a Finnish counterparty which is entitled to the tax credit. There is, however, no tax reason for the Finnish mutual funds herding the foreign institutions, because both dividends and capital gains channelled via the mutual funds are double-taxed at the same rate.¹³

The foreign recipients of dividends are taxed in the home countries on a residence basis. That is, they owe taxes to their Inland Revenue Service (IRS) on the basis of home and foreign dividends, but receive a foreign tax credit for the Finnish corporation tax on dividends from Finland and can deduct the Finnish source tax from their home country tax liability. Most countries grant a foreign tax credit only up to their domestic tax on foreign dividends and a deduction of the foreign source tax on any net tax liability left over. Let

- D^a = dividends from abroad
- τ^a = foreign income tax rate
- τ^h = income tax rate at home
- ω = foreign source tax on dividends

The home country considers dividend D to be paid out of pre-tax income $D^a/(1 - \tau^a)$ abroad. Hence the net home tax liability on foreign dividends is

10 This does not currently apply to the residents in the UK (and the Republic of Ireland) who receive the tax credit at the rate of the basic UK income tax rate which is the UK rate of the tax credit, but they will lose this status in 1998.

11 In case of foreign direct investments the source tax is not levied on dividends to an EU parent corporation which owns directly at least 25 per cent of its Finnish subsidiary if the parent company is liable for the corporation tax in its home country. The source tax is however collected both on the dividend and its associated tax credit if the EU parent is entitled to the tax credit in Finland as currently are the UK-and Ireland-based parent corporations.

12 The institution of short sales has been in operation for the past two years.

13 The fact that Finnish mutual funds have not collected dividends can be explained by the interests, not of their customers, but of the owners of their management companies. They are most typically banks, which have been notoriously short of taxable profit since the introduction of the tax credit system. Sorjonen (1995) studied the ex-dividend day behaviour of the Finnish stock market. He found that in 1991–1992 the average ex-dividend day price drop of shares was 1.02–1.06 times the amount of dividend while the theoretical ratio was 1.33 due to the then lower capital income tax rate of 25 per cent. Hence, the parent banks of the mutual funds have clearly benefited from the latters' dividend avoidance around the ex-dividend days.

$$(2) \quad T^{ha} = D^a \max \left\{ \frac{\tau^h - \tau^a}{1 - \tau^a} - \omega, 0 \right\}$$

If zero constrains in (2), the taxpayer is in a state of "excess credits" when its available foreign tax credits exceed domestic tax liability on foreign income. Foreign dividends are then effectively taxed more heavily than domestic dividends, which may be another reason for avoiding foreign dividends. The opposite case is a "deficit credit" position. Foreign and domestic dividends are then taxed equally at the same domestic rate τ^h .

5. CAPITAL GAINS

Consider Table 3., where the post-tax profit is retained and invested by the corporation, all quantities being per share. Competition is assumed to equalize real economic gains (added value) and losses over time in a well-diversified portfolio so that the post-tax profit represents a taxable capital gain.¹⁴ If shares are sold, the investor pays capital income tax and pockets post-tax 51.8 per cent of the pre-tax profit as the increment of his consumable wealth.

TABLE 3. Effective tax rate of realized capital gains

True profit before tax	100
./. corporation tax @ 28 %	-28
= retained profit	72
= investment expenditure	
= taxable capital gain	
./. tax @ 28% upon realization	-20.2
= the owners' wealth increment	51.8
⇒ total taxes are 48.2 % of pre-tax profit	

The taxes take 48.2 per cent of the pre-tax profit. The owner faces double-taxation of the returns of his investment when they are eventually channelled to consumption via capital gains. The effective tax rate on retained profit is further (i) reduced by deferring the realization, effectively an interest free loan from the state treasury, and (ii) increased by inflation. In the past the average rate of inflation has been higher than the average pre-tax real rate of interest. If the stylized fact continues to be that the inflation effect dominates, the economic tax rate of retained profit is easily 50 per cent or above¹⁵, in the same range as that of interest income.

¹⁴ That is, an investment financed from retained profits earns its cost of capital on the aggregate and, therefore, the average PV of growth opportunities over all stocks is zero over time.

¹⁵ There is an opportunity to reduce the economic tax rate on retained profit through tax arbitrage due to the asymmetry of the tax rates on capital losses, deductible from taxable gains at the capital income tax rate of 28

The conclusion applies directly to a public corporation. The selling of shares in a private corporation may entail the change of the ownership majority. The company loses its tax surpluses. Table 4 continues the example of Table 3. where the company has a distributable post-tax accounting profit of 72 units on its books. The prospective buyer does not pay 72 for it. If it is distributed as dividends, the company, having lost its tax surplus of 28, must now pay a minimum tax out of its cumulative accounting profit. Therefore the sum of the minimum tax and dividend cannot exceed 72. The buyer is willing to pay up to 51.8, the value of the maximum dividend, which is the same if the buyer is another corporation or an individual. The poor seller pockets 37.3 per cent of the original 100 units of pre-tax profit. Therefore his realization income is triple-taxed, the economic tax rate being 62.7 per cent. Inflation and deferral complicate the outcome as in Table 3.

TABLE 4. Effective tax rate on realized capital gains of a non-quoted company

Post-tax retained profit	72
./. Minimum tax @ 28%	-20.2
= Maximum dividend when tax surpluses are lost	51.8
= Value of the cumulative past accounting profit to the buyer	
./. the seller's tax upon realization	-14.5
= the seller's post-tax wealth	37.3
⇒ total taxes are 62.7% of the pre-tax profit of 100	

The lesson for any prospective seller of a private firm is to avoid triple-taxation when the firm has past tax surpluses. The sale of a minority of equity rights, in the initial public offering (IPO), for example, is one alternative.¹⁶ If the company has accumulated tax losses, then the best time to sell the majority in the IPO is to wait and, perhaps, dilute the ownership to a venture capitalist until the firm has produced positive taxable income so many years that all tax losses have been exhausted, but the firm has not yet created any tax surpluses.

per cent, and that on super gains, which fall into to the category of 70 per cent of the realization revenue regarded as taxable gain though the true realized nominal gain were larger. In this range, the nominal tax rate declines from 28 per cent gradually towards 19.6 per cent (when the true purchase price is negligible compared to the realization price). Realizing losses and super gains so that taxable gains equal tax deductible losses during a tax year, one can defer the payment of the capital income tax on the unrealized gains.

The strategy is a variation of the well-known tax minimization strategy: (i) hold gains until they are long and receive a favourable tax treatment, (ii) realize any short-term losses each tax year against long-term gains, (iii) if you have not enough long-term gains against short-term losses, realize short-term gains, and (iv) having satisfied your consumption needs, use the rest of the realization proceeds to buy back the same portfolio of shares, if you believe in their prospects. In Finland this strategy is constrained by the fact that realized losses are deductible from realized gains only within the same source of income. Kukkonen (1997) is an empirical study in this area.

¹⁶ Another is to utilize the exception clause of the law. It gives the authorities the right to grant permission to use the past tax surpluses even after the change of ownership if not doing so would threaten the viability of the firm.

In most cases a widely-held public corporation cannot control whether the majority of its shares changes hands during the tax year the tax surplus arose or in any later year. In such a case the tax minimizing way of using surplus cash is to redeem one's own shares rather than to distribute past post-tax profits. Because the tax surpluses are assumed to be lost, the latter would be subject to the minimum tax, which is not refunded to the tax-free investors or may not be fully recovered by foreign investors in the "excess deficits" state. The same argument applies to the source tax on dividends. The repurchasing of shares instead creates capital gains which are tax free income to the tax free investors. Only domestic households and corporations as a group would in this case be indifferent between additional dividends and capital gains. The others would favour share repurchases and capital gains.

6. TAX IRRELEVANCE OF FINANCING SOURCES

A growing firm must finance its growth. If debt is used, its effective tax rate m_b , given by (1), depends positively on the expected rate of inflation and negatively on the expected real rate of interest, shown by the plus and minus signs in (3) below. The benchmark value of m_b is 50 per cent under the expected low inflation in 1997. The same tax rate holds true for financing growth by retaining post-tax profit, which the owners can channel into consumption by realizing capital gains at their effective tax rate of m_{cg} in (3). The values of both m_{cg} and m_b are given by determinants which are exogenous to the firm.

Were debt and post-tax profits not used to finance growth, new shares must be issued continuously, because post-tax profits are distributed. It would be the tax minimizing policy, the effective tax rate on the pre-tax profit being the statutory τ . Yet, such a behaviour is not observed. Instead, the pay-out ratios (POR) of the public companies range typically from 30 to 50 per cent. The focus of this paper is to consider tax aspects of such behaviour. Some other models of corporate finance would offer perhaps a more plausible explanation.

Consider therefore an owner class which aims at an "eternal" ownership of the firm and relies only on dividends to satisfy its consumption needs. It is unanimous in the distribution and financing policy with the other owners and financiers if the pay-out ratio (POR) is set so that the total of the corporation tax is about 50 per cent of the pre-personal-tax dividends, the benchmark effective tax rate on interest and capital gains.

Therefore, POR should slightly exceed one half, because one half implies the total tax to be 56 per cent of the pre-tax dividend¹⁷: for each pre-tax markka distributed (tax rate 28%)

¹⁷ This is also close to the top tax rate on earned income. If the owner holds shares in private companies, too, the marginal dividends of which are taxed as earned income, he is tax indifferent to owning shares in public and private companies.

another pre-tax markka (tax rate 28%) is retained, the tax surplus being eventually lost after 10 years. The economic tax rate of dividends m depends then negatively on POR¹⁸

$$(3) \quad m_b(\tau, \pi^e, r^e) = m_d(\tau, \text{POR}) = m_{cg}(\tau, \pi^e, r^e)$$

Under double-taxation of retained profit, condition (3) is consequently the equilibrium condition determining a unanimous pay-out ratio, given the statutory tax rate τ and long-term expectations about the inflation and real interest rates. According to this conjecture, a company is tax indifferent to retaining and distributing its post-tax profit and to financing its investment programme by borrowing, retaining post-tax profits or by issuing new shares. Solving (3) for the equilibrium POR, one obtains

$$(4) \quad \text{POR}^* = f(\tau, \pi^e, r^e)$$

which in the benchmark case implies effective double-taxation of dividends, too.

Therefore, when valuing firms and making real investments in the firms it is not proper to regard 28 per cent as the corporate tax rate τ and apply well-known text-book formulae for the *post-tax* cost of capital k as in Section 3. I personally find it much easier to estimate the risk-adjusted, *pre-tax* cost of capital in real terms and value firms on the basis of their pre-tax operating profit forecasts, deducting any interest bearing debt net of financial assets to get the value of equity. The same approach is advisable for capital budgeting decisions as well.

7. DIVIDENDS AS EARNED INCOME

It is the nature of the unanimity equilibrium of the previous section that tax surpluses are lost. Consider now especially an owner-managed private corporation. Because the top marginal tax rate on earned income is about 58–60 per cent, there is an incentive for the owner to transform earned income (labour and entrepreneurial income) to more lightly taxed capital income. Therefore, an upper limit is set to the dividends from those corporations that are regarded as capital income. Any extra distributions are taxed as earned income. Kari (1997) studies the problem from the investment incentive point of view. The following pays attention to the problem of losing tax surpluses.

¹⁸ It would depend also on the rate of inflation if dividends are paid out of asset disposals. In countries such as the UK where the rate of imputation = u and the personal dividend tax rate = τ_d differ from the corporation tax rate = τ , the effective tax rate on dividends m_d depends, in addition, negatively on u and positively on τ_d .

Let DIV_t be the declared dividend in year t based on the accounts of year $t - 1$. Dividends from a non-listed company are taxed solely as income from capital if the pre-personal tax dividend = $DIV_t / (1 - \tau)$, i.e. dividend grossed up with the tax credit, is at most a fraction b on the end of year $t - 1$ book value of equity = BVE_{t-1} , deducting the declared dividend¹⁹

$$(5) \quad \frac{DIV_t}{1 - \tau} \leq b(BVE_{t-1} - DIV_t)$$

With the current values of $\tau = 0.28$ and $b = 0.15$, the maximum declared dividend taxed as income from capital is

$$(6) \quad DIV_t = \frac{(1 - \tau)b}{1 + (1 - \tau)b} BVE_{t-1} = (0.108/1.108) BVE_{t-1}$$

Consider the owner's incentive to transform labour income, evaluated at the wage of his outside opportunity, to capital income. If done, it boosts the taxable income of the corporation above its true economic measure. Whatever he consumes, including precautionary saving on his personal account, he takes as salary and as capital income taxed dividends determined by (6). The rest of the post-tax profits he saves in the corporation, investing the funds in financial markets and accumulating tax surpluses, which amounts to the assumption that the *average* pre-tax accounting rate of return on book equity exceeds $b = 0.15$ in formula (5).

Jump into year $t = 12$ when the owner is deciding how big a dividend he would declare on the basis of the year $t = 11$ accounting profit and balance sheet and when the corporation faces the reality of possibly losing the tax surplus from year $t = 1$. If he declares only such a dividend which by (6) is taxed as income from capital, the corporation loses the tax surplus from year $t = 1$. Depending on the size of the lost tax surplus, the effective tax rate on such a pre-tax dividend rises easily into the range of 56–60 per cent and higher, particularly, if one takes into account the cumulative loss of interest of not utilizing the tax surplus in year $t = 2$. If the owner continues his old policy in year $t = 12$ and onwards, dividends will effectively be taxed at the top tax rate on earned income plus a possible wealth tax.

If he wants to utilize the year $t = 1$ tax surplus in year $t = 12$, he must distribute the whole post-tax profit of year $t = 11$ and the retained post-tax profit from year $t = 1$. The higher dividend is taxed as earned income, but why not do so because he could increase his consumption in year $t = 12$. Because our tax planner finds it optimal to take dividends which are taxed as earned income in year $t = 12$, it is optimal to do so already in year $t = 11$, and so on, by

¹⁹ The rationale of having the capital income taxed dividend defined in terms of the end-of-year book equity is of course to mitigate the effect of inflation, but during periods of rapid inflation the book value of physical capital, being based on historical acquisition prices, lags the market value.

backward induction, every earlier year from the very start $t = 2$.²⁰ It pays him to cumulate tax surpluses, but not to lose them totally.

The "optimality" of marginal earned income taxed dividends from a corporation, where the average pre-tax rate of return on assets exceed the limit b , is but a conjecture, not formally derived by dynamic programming. If accepted, it implies that *the owner-manager has no incentive²¹ to transform labour income to capital income in the first instance since marginal dividends are taxed at the marginal tax rate on earned income and that the owner-manager is tax indifferent to investing his initial stake in a public and private corporation.*

8. WINDING UP

To illustrate the distribution problem, assume specifically about year $t = 12$ above that

- the share capital is the old minimum FIM 15000 (50000 since September 1997)
- $BVE_{11} = 1016620$ (= 15000 + 1001620) consisting of share capital and the undistributed past and year $t=11$ post-tax profits
- the owner retires from the start of year $t = 12$, contemplates buying a house in Southern Portugal and enjoying her mild winters. His savings are in the corporation in liquid form because its business needed no real assets.

If he declares the whole cumulative post-tax profit FIM 1001620 as a dividend, only 1620 of it is taxed as income from capital because now $BVE_{t=11} - DIV_{t=12}$ in (5) equals the nominal share capital 15000. Therefore, the pre-tax profit taxed as capital income is only 2250 (= 1620 dividends and 630 tax credits). The rest of the declared dividend is taxed as earned income in the following way:

+ the declared dividend	1000000
+ tax credit on dividend	388889
= total taxable income	1388889

²⁰ How much earned income taxed dividends he takes depends on numerous things as the timing of his consumption, the real rate of return on the corporate assets and in the financial markets as well as the difference in the two tax rates today and in the future. The decision to distribute earned income taxed dividends in any year reduces BVE and the maximum capital income taxed dividend next year. So the owner must weigh the benefits of receiving a higher dividend and more heavily taxed dividend today and the loss of the future stream of higher dividends taxed as capital income.

²¹ The other factor in favour of taking one's opportunity wage directly as earned income is that social insurance benefits (old age and disability pensions, sickness leave pay, etc.) are derived only from salary and not from capital income even though taxed as earned income.

Tax liability, dividend earned income	
⇒ earned income tax @ 58%	+805556
- tax credit	-388889
= additional personal tax	+416667
⇒ post-tax dividend	+583333

If the owner sells the corporation for its nominal share capital, he pockets $1620 + 583333 + 15000 = 599953$ in all.

The example entails a non-quoted corporation disinvesting and distributing the revenue from asset disposals as dividends. The lesson is that they are taxed as income from capital only if the pre-tax accounting rate of return on the *initial* share capital does not exceed 15 per cent. Anything earned above this limit is ultimately taxed as earned income. Even though the corporation does not grow and disinvest, but earns nominally less than 15 per cent on its book equity, inflation causes the effective tax rate of the real return on equity to exceed the statutory one.

However, by winding up the firm²², the owner reduces his tax liability and can afford a more expensive house. First, he declares the maximum capital income taxed dividend which is 99093 by (6). The remaining book value of equity BVE_{12} is 917527. Assuming that the firm has no unrealized gains on its assets, it faces no new taxes. The proceeds from dissolving the corporation are taxed as income from capital in the owner's taxation. Because the original acquisition cost of the corporation is 15000, 70 per cent of the gross proceeds are regarded as taxable income from capital. Therefore the tax liability is $(0.28)(0.7)917527 = 179835$. Together with the dividend the owner pockets FIM 836785, considerably more than by emptying the corporation through dividend distribution.

Yet, one must remember that, when winding up, income generated by the corporation is still double-taxed. The owner cannot utilize the tax surpluses 388889 which the corporation accumulated. In all, the taxes $(388889 + 630 + 179835)$ are 41 per cent of the pre-tax nominal income realized in the process of dissolving the corporation. The tax rate is 10 percentage points higher than the average one on earned income²³ without taking into account the effects of inflation.

²² It takes time so that the firm may earn an additional return on its assets during the process, but also costs as legal and auditing fees. These are not taken into consideration.

²³ According to recent press news, the Ministry of Finance plans (i) to make all realized gains taxable income to their full extent so that the effective tax rate is always at least 48.2 per cent as in Table 3 and (ii) to treat share repurchases and company dissolvings as distributions and to require either tax surpluses or charge a minimum tax on those, but not to grant tax credit to the recipients of the funds! The latter would institute triple-taxation, which would be a rule, if the undistributed profit is generated before the adoption of the tax credit system.

9. CONCLUSION

The article reviews and analyses the current Finnish system of taxing the return on financial claims. Finland has implemented a number of big reforms. A final source tax on interest income was adopted in 1990 and 1993 marked the implementation of the dual income tax system, where income from capital is taxed at a flat rate separate from earned income which is taxed according the ordinary progressive tax schedule. Finland also adopted in 1990 the tax credit system as to the dividend taxation whereby the corporation tax on the distributed profit is fully credited in the shareholders' taxation. Double-taxation of undistributed profit still remained as well as complete lack of inflation indexation of taxable income. These features together with the need to finance the growth of the firms, which means that the tax surpluses due to profit retentions are eventually lost, leads to double-taxation of the whole corporate income.

The conclusion is arrived at by examining the following ways to channel income from corporate capital into consumption:

- paying interest on debt when taxation of nominal interest income distorted by inflation is the mechanism of double-taxation
- realizing shares or by dissolving a corporation when double-taxation is enacted by law
- earning dividends and holding shares into the eternal future, when the eventual losing of the tax surpluses in a growing firm and inflation in a non-growing firm act as the mechanisms of double-taxation

Corporate income is therefore taxed more heavily than labour income, the effective *average* tax rate on the former approaching in most cases the top *marginal* tax rate on labour income.

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