

**REFORMING BUSINESS TAXATION:  
LESSONS FROM ITALY**

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# Reforming Business Taxation: Lessons from Italy?\*

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**Abstract** - We carefully review the recent Italian reform of business taxation, compare it with other international experiences and theoretical proposals and compute its effects on the cost of capital. We argue that the Italian reform is an original attempt to find a compromise between two conflicting aims, both unavoidable in an open economy: to reduce the average rate of taxation on profits and to increase the financial and real neutrality of corporate taxation. In assessing the preliminary evidence for the Italian case, we argue that too much weight has been given to the former objective and that further reductions in the average taxation on profits are needed.

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## 1. Introduction

In the 1980s and the early 1990s, most Western countries introduced wide ranging reforms aimed to increase the fairness and efficiency of their tax system. Italy was a latecomer to this process. After the wide reform of the beginning of the 1970s, there were continuous small changes in the tax legislation, but their major scope was to increase government's revenue. Never were they undertaken following a coherent and comprehensive reform program. Only the tax reform package presented by the newly elected centre-left wing government in 1996, and enforced since 1998, constitutes a sweeping change comparable to those of the other countries. This reform affected all the main aspects of the Italian tax system, ranging from tax administration and tax compliance to local taxation. But the most important innovations certainly concerned business and capital income taxation. And although these innovations shared some common grounds with other international experiences and theoretical proposals, they were combined in an original system of taxation which was regarded better able to cope with the increasing international fiscal competition.

In particular, the new system attempts to face two conflicting aims. On the one hand, the perceived need of reducing the cost for an equity financed investment led to the adoption of a dual system for business income taxation, somewhat intermediate between the Dual Income Tax (DIT) system adopted in the Nordic countries in the 1990s (Sørensen 1998) and the Allowance for Corporate Equity (ACE) proposed in the UK by the IFS (1991). On the other hand, the attainment of full financial and real neutrality was sacrificed in order to reduce further the statutory and the average rate of taxation on profits, which was thought to be a more important determinant of capital movements in an international context, in particular concerning the choice of investment and location made by multinational companies (Bond, 1997, Devereux and Griffith, 1998).

Moreover, this reduction in the average rate of corporate taxation was not achieved with the usual policies of "tax rate cuts cum base broadening" which characterised most other countries reforms in the 1980s. Rather, it was achieved by shifting the burden of taxation from profits to a broader definition of (both corporate and non-corporate) business income, including interest payments and labour costs. This was done by introducing a new, and on several grounds, entirely original tax on all business activities (IRAP). Since the tax base of IRAP is very large, roughly coinciding with the total economy's net value-added, the new tax raised considerable revenue with a low tax rate, so allowing for a significant reduction in the statutory rate of taxation on corporate profits.

In this paper, we carefully review the characteristics of the Italian reform of business income taxation, by describing in details and commenting upon each of the constituting blocks of the reform. We also compare the Italian reform with other international experiences and theoretical proposals, stressing the need for any sensible reform of corporate income taxation in a open economy to trade-off the conflicting aims discussed above. We finally attempt to offer a preliminary assessment of the reform by calculating its effects on the cost of capital under alternative hypotheses and by collecting some preliminary evidence on firms' behaviour following the reform. In particular, the computations of the cost of capital discussed here are based on the more formal analysis developed in a companion paper (Bordignon et al., 2000), which we refer to for more details. In assessing the very preliminary evidence on the effects of the reform, we stress the fact that contrary to the marginal rate of taxation --which has been, according to our and other's estimations, reduced by the reform in Italy well below that of most competing countries-- the average rate of taxation on capital has remained too high with respect to both those prevailing in other countries and to the overall, not only tax -determined, competitiveness of the Italian economy.

The rest of the paper is organised as follows. Section 2 provides the reader with some essential background on the characteristics of the Italian economy and the tax system in force before 1998, thus underlining the need for a reform. Section 3 offers an overall introduction to the main features of the 1998 reform. Sections 4 to 6 describe in more details each of the single block of the reform, discussing separately the new tax on value added (IRAP), the tax allowance for equity financed capital (DIT) and the reform of personal capital income taxation. Section 7 inquires on the effects of reform, by comparing the marginal and the statutory rate of taxation on capital before and after the reform. Section 8 discusses implementation issues and some preliminary evidence. Section 9 concludes.

## **2. Background: the need for a reform**

In the 1980s and the early 1990s, while most other countries were reducing their corporate tax rates, Italy moved in the opposite direction. The statutory tax burden on corporate income was progressively raised from 36.25 per cent at the beginning of the 1980s up to 53.2 per cent since 1995. This was the sum of the “corporation tax” (IRPEG), levied at a rate of 37 per cent, and of a so-called “local income tax” (ILOR), which was in fact another tax on profits levied at a uniform national rate of 16.2 per cent, and non deductible from the corporate tax base. This increase over time of the statutory tax burden was not compensated by greater allowances from the tax base. On the contrary, the so-called “anticipated” depreciation, which is a mechanism allowing to accelerate depreciation in the first three years, was made less favourable to firms since the end of the 1980s. In addition, in 1992, a special “temporary” tax on business net worth was introduced, with a rate of 0.75 per cent. The only scope of this tax was to increase revenue in the very short run; but for the same reason, its application was continually renewed over time.

Not surprisingly, this evolution in the taxation of corporate income raised increasing criticisms, and was considered as an important factor in explaining several distortions and drawbacks of the Italian system.

Firstly, it was widely recognised that the high statutory rate, together with the tax on business net worth, gave debt-financing an excessively high advantage over equity-financing. Under the former, no tax was due at the corporate level, whereas under the latter, corporations were subjected to the 53.2 per cent tax rate on profits and had to pay the Net worth tax as well. To ease the pressure on equity financing, since 1995 new subscriptions of capital were made deductible from the net wealth tax base, but the latter still discriminated against retained earnings, which is a far more important source of equity capital. Light taxation of dividends and capital gains at the personal level was not enough to compensate for the high tax advantage of debt at the corporate level. For these reasons the tax system was seen as an obstacle to the development of capital markets and especially as an important factor in explaining the high debt-equity ratio of Italian firms<sup>1</sup>, the central role of the banking system in their financing, and the thin capitalisation of the Italian Stock Market (whose total value only covered about 2 per cent of the equity value in the

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<sup>1</sup> For further details, see Bonato et al. (1993). See also De Andres Alonso and Lopez Iturriaga (1997), who use the B.A.C.H. (1991) dataset and offer a comparison among the G/7 countries (with the exception of Canada) and De Bond (1998), who compares financial structures in six EU countries, including Italy.

world)<sup>2</sup>.

Secondly, the high statutory rate made tax avoidance and tax evasion particularly attractive. Evasion was more concentrated among small companies (Bordignon and Zanardi, 1997). For big companies, and especially large multinationals, a more frequent behaviour was to engage in tax - planning activities (e.g. transfer pricing) in order to shift profits to other jurisdictions, with lower tax rates. This behaviour became more rewarding over time because of the increasing gap between the statutory rate in Italy and those of other EU countries, up to 17 percentage point in 1997 (see section 7). Tax planning operations, tax evasion and the use of debt tax shields were seen, in turn, as an explanation for the constantly high percentage of companies declaring losses (around 50 per cent), or a very low taxable income.

Thirdly, the tax system was always listed as one of the main obstacles to domestic and foreign investment in the country, to the growth of new business activities and the increase in size of the existing ones. In turn, the small size of business activities in Italy<sup>3</sup> and the weakness of their financial structure, were considered as a major impediment to innovation, growth and competitiveness.

Finally, corporate taxation also induced a distortion in the choice of the organisational form. As in most other countries, in Italy too profits in the non corporate sector are taxed, independently of their distribution, according to the personal progressive income tax. But differently from most other countries, this sector accounts in Italy for the greatest bulk of business activities<sup>4</sup>. Most of them are of a very small size and they usually had allowances or were exempt altogether from the 16.2 per cent local income tax.. As an effect, taxable income was on average very low, within the first tax brackets of the personal income tax, and therefore the overall effective tax burden turned out to be usually much lower than it would have been if the activity were incorporated. Thus, the tax system in practice discriminated against the corporate legal status. Again, this was considered as an another obstacle to the development and growth of firms.

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<sup>2</sup> Note also that the Italian entrepreneurial system is characterised by a high concentration of direct ownership. As argued by Bianco and Casavola (1999) this leads to a preference of internal finance over external finance.

<sup>3</sup> In 1996, 95% of all business activities had less than 10 employees and absorbed 47% of employed labour, whereas companies with more than 250 employees had only 20% of employment (Bank of Italy, 1999).

<sup>4</sup> Partnerships and individual firms are almost 4.5 millions, whereas the corporate sector accounts for 826.243 companies (December 1999).

### 3. The reform

The 1998 tax reform attempts to cope with these problems by focusing on two primary objectives: to reduce the statutory rate on profits and close the wide gap between debt and equity finance. To provide an immediate picture of the tools which were used, Table 1 compares the most important taxes on profits levied before and after the reform, in both the corporate and the non corporate sector.

**Table 1. The 1998 profit tax reform in Italy**

	Pre reform	Post reform
Corporate Sector	<ul style="list-style-type: none"> <li>• Local income tax (ILOR): 16.2% on profits</li> <li>• Wealth tax: 0.75% on net worth</li> <li>• Corporate profit tax (IRPEG): 37%</li> </ul>	<ul style="list-style-type: none"> <li>• Regional tax (IRAP): 4.25% on value added of the net income type</li> <li>• Dual income tax (DIT):               <ul style="list-style-type: none"> <li>a) 19% on “ordinary income”</li> <li>b) 37% on residual profits</li> </ul> </li> </ul>
Non corporate sector	<ul style="list-style-type: none"> <li>• Local income tax (ILOR): 16.2% on profits, with many exemptions and rebates</li> <li>• Wealth tax: 0,75% on total assets</li> <li>• Personal income tax rates: from 10% to 51%</li> </ul>	<ul style="list-style-type: none"> <li>• Regional tax (IRAP): 4,25% on value added of the net income type</li> <li>• Dual income tax (DIT):               <ul style="list-style-type: none"> <li>a) 19% on “ordinary income”</li> <li>b) personal income tax rates (from 19% to 46%) on residual profits</li> </ul> </li> </ul>

As can be seen from the Table, in the corporate sector the first notable change introduced by the reform was the abolition of two taxes that highly favoured debt financing: the Local income tax (ILOR) and the Net worth tax. To compensate for the resulting revenue loss, a new regional tax on value added of the net income type (IRAP) was introduced, at a normal rate of 4.25 per cent (see section 3). As a result, the statutory rate on profits immediately fell from 53.2 to 41.25 per cent: 37 per cent for the corporation tax, plus 4.25 per cent for the part of the new regional tax falling on profits, one of the components of value added.

Second, to further reduce the tax cost of equity finance and the corporate tax rate, a “dual” system of profit taxation (called DIT) was also introduced. According to this dual system, profits are now split in two components. A first component, called “ordinary income” is computed so as to approximate the opportunity cost of a new financing with equity capital, in the form of both new subscriptions of capital and retained earnings (see section 4). This component is taxed at the preferential rate of 19 per cent. The second component (“extra-profits”) is residual and is taxed with

the normal corporate tax rate of 37 per cent. However, in order to avoid discriminating too much in favour of the new born firms and for the fear of losing too much revenue, a limit was imposed on the resulting average tax rate, which cannot fall below 27 per cent. Hence, after the reform, the average corporate tax rate ranges between 27 and 37 per cent.

Similar changes interested the non corporate sector. But there were some major differences. First, the abolition of ILOR benefited more the corporate than the non corporate sector, since the latter was generally exempted from ILOR, whereas it is subjected to IRAP. Secondly, under the DIT system - which is extended to all partnerships and individual firms, as long as they do not keep simplified accounting- “residual” profits are taxed according to the personal progressive income tax, with rates (also changed by the reform) ranging from 19 to 46 per cent, and that therefore might be higher than the corporate tax rate.

Even from this brief description, it clearly emerges that the Italian reform of business taxation is not just a belated replica of the reforms enacted in other countries. Indeed, at a first look, the new Italian system does not seem to stick to any particular proposal or experience in corporate income reforms, and one may wonder about its rationale and how it relates to other experiences. In the following sections we will discuss these issues by looking in more details at the two main blocks of the reform, IRAP and DIT.

#### **4. The new regional tax on business activity (IRAP)**

The new regional tax (IRAP) is certainly one of the most innovative aspects of the Italian reform. Indeed, although the idea of a tax on value added levied at the business level has illustrious precedents in the academic literature<sup>5</sup>, there are very few other examples of real world applications. As far as we know, the closer experiences are the Single Business Tax (SBT) applied in Michigan (US) since 1976 and the Business Enterprise Tax (BET) introduced in New Hampshire (US) in 1993 (Kenyon, 1996). However, IRAP has a much larger tax base than either SBT or BET and is levied at a higher tax rate.

IRAP is a flat-rate tax levied on the value added generated by all types of business and self-employed activities. The tax base is computed annually from taxpayers’ accounts according to a direct subtraction method. Value added is specifically defined for the different categories of taxpayers, depending on the type of business activity carried out. Specific rules, for example, are



established for the banking system, financial intermediaries and insurance companies<sup>6</sup>. Apart from these exceptions, for most business activities the tax base is computed as the accounting difference between revenue from sales and the costs of intermediate goods and services. Neither labour costs, nor interest payments are deductible from the tax base. Thus, the IRAP base basically equals the sum of wages, profits, rents and interest payments at the business level. Outlays for capital goods are not immediately expensed, but taxpayers may deduct from the tax base fiscal depreciation allowances, which include “anticipated” depreciation in the first three years. IRAP may thus be defined as a tax on value added of the net income type. Moreover, IRAP is a source tax: it is levied according to the origin principle, on all value added produced within the domestic boundaries. Therefore, it does not provide for any border tax adjustments: it is neither remitted on exports nor levied on imports<sup>7</sup>.

In addition to ILOR and the Net worth tax, the new IRAP substituted other minor taxes and a large social contributions on wages and earnings earmarked to health expenditure. On the whole, the tax reform implied a substitution of taxes amounting to about 25 billions Euro, that is around 6 per cent of total revenue (including social security contributions), and was a major change for more than 4 million taxpayers. Since the most important abolished taxes, notably ILOR and the Net worth tax, were collected by the State, while the revenue from IRAP goes to Regions, the introduction of the new tax implied a significant move towards fiscal decentralisation. Indeed, IRAP was originally proposed with the major aim to provide Regions with an autonomous source of revenue<sup>8</sup> by a Commission on Fiscal Decentralisation set up in 1995 by the Ministry of Finance. However, the choice of IRAP was largely motivated by other reasons, in addition to fiscal decentralisation, also largely anticipated in the final report of the Commission.

First, the new tax has a very broad tax base, which means that to collect a given revenue it requires a low statutory rate, thus reducing the excess burden of taxation. In 1998, with a 4.25 per cent normal

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<sup>5</sup> Among these, the Income Type Value Added Tax (ITVAT) examined in the Meade Report (1978, p.171) is presumably the most widely known. See also the pioneering works of Adams (1921), Colm (1939), Studenski (1940) and, in Italy, Saraceno (1945).

<sup>6</sup> Basically, banks and financial institutions are taxed on the difference between interest receipts and payments. For these sectors a higher rate was also set for a transition period ending in 2004. Agriculture, instead, benefits from a transitory regime with lower rates.

<sup>7</sup> In passing, this also explains why IRAP differs from the European VAT. The latter immediately exempts all capital outlays, and is therefore a consumption-based value added tax; it is based on the destination principle; it is applied according to an indirect subtraction method, i.e. by deducting taxes on purchases from taxes on sales.

<sup>8</sup> The tax revenue is attributed to the Region where the productive activity is undertaken. Starting from January 2001 these sub-national authorities will also have the possibility of varying the tax rate up to 1% above or below the normal rate, discriminating the change at will among sectors and activities. We will not discuss here further the IRAP as a

rate, IRAP ranked third as source of tax receipts , after the personal income tax and the VAT.

Second, it can have, and indeed has in Italy, a widespread application to all types of productive activities, including self employed. Therefore, it is neutral with respect to different forms of organising businesses.

Third, IRAP guarantees an equal fiscal treatment of equity and debt financing; profits and interest payments are taxed, at the business level, with the same tax rate. The tax does not discriminate between different sources of equity capital (retained earnings and new subscriptions) either. All profits, independently of whether they are retained or distributed, are included in the tax base. No tax credit is given at the shareholder level for the tax paid by the company.

Fourth, the tax is also in principle neutral with respect to the use of different productive factors, namely capital and labour, since profits, interests and wages are all included in the same tax base and taxed with the same rate<sup>9</sup>.

Finally, and mostly important for our aims here, the new tax allowed for a significant reduction in the rate of profit taxation. Indeed, in Italy the decrease was substantial (more than ten percentage points in a single fiscal year), and brought the country closer to the EU partners, after a long period of diverging patterns (see section 7).

As we remarked already, it is worth stressing that this move towards a lower rate on profits did not follow the traditional route implemented by other countries in the 1980s. In the latter, the corporate tax base was broadened because a number of allowances from the profit tax base, like accelerated depreciation, were repealed. In Italy, instead, the reduction of the tax rate on profits was obtained by extending taxation at the business level to other types of income, different from profits, rather than by widening the definition of profit to be used as tax base. Broadly speaking, what mainly allowed the reduction of the overall tax rate on corporation profits (i.e. the abolition of ILOR) was the taxation of interest payments at the business level. In fact, interest payments were completely untaxed before the reform, whereas for labour income, which is the other important component of value added, IRAP was a substantially neutral substitution for the previously levied health contributions.

The idea of taxing interest payments at the business level is not new in the literature, even though it is not implemented anywhere (excluding specific restrictions aimed to prevent tax

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regional tax, as this discussion would take us too far from the objectives of this paper, except to note that IRAP is gaining consensus as a local tax even elsewhere: see Bird and Mintz, 1999 .

avoidance practices, like thin capitalisation). Indeed, a similar proposal was advocated, at the beginning of the 1990s, by the US Treasury Department (1992). Their Comprehensive Business Income Tax (CBIT) extends the tax base by disallowing interest payments deductibility. Both profits, as traditionally computed, and interests paid on debt would be taxed with a common rate at the business level. The rate suggested under this proposal is the top rate for the personal progressive income tax (31 per cent at that time in the US); but no other taxes should be paid at the personal level. The US proposal is clearly much more radical than the Italian reform, and in fact the proponents of CBIT suggested a ten year transition period. But the underlying rationale does not differ much.

IRAP shares with CBIT the idea of taxing interest payments and goes even further in widening the tax base, in so far as labour costs are also included. Notice that by disallowing interest payments deductibility IRAP, like CBIT, introduces a positive tax wedge between gross and net returns on a debt-financed marginal investment. Therefore, both taxes are neutral with respect to financing decisions, but they are not neutral with respect to the cost of capital. For such a neutrality to hold, investment outlays should be made fully deductible under both taxes. This would transform the CBIT in a Cash Flow Tax and IRAP in a consumption - based value added tax. In both cases, however, to obtain the same revenue a higher rate would be required on profits.

IRAP as well as CBIT may therefore be considered as an attempt to balance competing objectives: to attain neutrality with respect to the cost of capital across real and financial assets, on the one hand, and to reduce the statutory rate of profit taxation, on the other. As we shall see, a similar trade-off explains the choices made in Italy with respect to DIT.

## **5. Reforming business profits taxation: the Dual Income Tax (DIT)**

The name “Dual Income Tax” (as well as the acronym DIT) used by the government to label the new “dual” system of profit taxation clearly refers to the reforms introduced in the Nordic countries at the beginning of the 1990s (Sørensen, 1998). Undoubtedly, the Nordic DIT as well as other tax reform schemes discussed at the international level, notably the Allowance for Corporate Equity (ACE) suggested by the IFS (1991)<sup>10</sup>, were taken into consideration in shaping the reform. But the Italian DIT differs from both these other two systems. Table 2 illustrates these differences.

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<sup>9</sup> As it is applied in Italy, however, it slightly favours capital with respect to labour in so far as depreciation deductions are extended to anticipated depreciation allowances, whereas all labour costs, including contributions to pension schemes, are included in the tax base.

<sup>10</sup> This proposal was originally suggested by Boadway and Bruce (1984).

Note that for the Italian DIT two situations are considered: the one immediately after the 1998 tax reform and the one that will prevail in the future, accounting for some changes introduced or announced after the reform. This “final regime” better illustrates the underlying rationale of the reform.

**Table 2. Comparison between different tax reform schemes**

<b>Tax reform scheme</b>	<b>Corporate sector</b>	<b>Non corporate sector</b>
Nordic DIT	$t\Pi$	$t_p (\Pi - r^*E) + t r^*E$
ACE	$\tau (\Pi - rE)$	$\tau (\Pi - rE)$
Italian DIT: 1998 tax reform	$\text{Max} [\tau (\Pi - r^*\Delta E_{96}) + t^* r^*\Delta E_{96}; \tau^{\text{min}} \Pi]$	$t_p (\Pi - r^*\Delta E_{96}) + t^* r^* \Delta E_{96}$
Italian DIT: “final regime”	$\tau (\Pi - r^*E) + t r^*E$	$t_p (\Pi - r^*E) + t r^* E$ $\tau (\Pi - r^*E) + t r^*E$

Legenda:  $\Pi$  profits,  $E$  equity,  $\tau$  corporate income tax rate,  $t$  capital income tax rate,  $t_p$  personal income tax rate,  $r$  market interest rate,  $r^*$  imputed return on equity (risk adjusted interest rate).  $\Delta$  indicates a change.

### 5.1 Nordic DIT and ACE

To explain the Table, it is useful to start by briefly describing the major properties of the Nordic DIT and the ACE system. Despite the many differences in the various Nordic countries (; Sørensen, 1998; Cnossen, 1998), the basic idea of the Nordic DIT is simple: to abandon the comprehensive approach to income taxation by imposing on all types of capital income a relatively low proportional rate ( $t$ ), equal to the lowest rate on labour income. Labour income is instead taxed according to the personal progressive income tax rates ( $t_p$ ). Corporate profits ( $\Pi$ ) are considered capital income and are consequently taxed with the same proportional tax rate  $t$  applied, for example, to interests income. For partnerships, individual firms, and self-employed, a “division” system is in place. Here, in fact, capital and labour income accrue jointly and there is a need to distinguish between the two. To do so, capital income is usually calculated as the first component, by applying an imputed return on business assets. The imputed return is generally a market interest rate corrected to take into account for the higher risk of equity capital ( $r^*$ ). Business assets are usually net of debt, thus representing the equity capital invested by the owners into the business ( $E$ ).

Only “imputed” capital income is taxed with the lower rate applied to corporate income. Labour income is a residual item  $(\Pi - r^*E)$  and is taxed with the personal tax rate  $(t_p)$ .

Note that the Nordic DIT does not exempt, at the firm level, the opportunity costs of equity, whereas interest costs remain fully deductible. Hence, neutrality with respect to financial choices could be reached if dividends and capital gains were exempted from personal taxation, whilst interest income were taxed with the same uniform rate used for capital and corporate income. Indeed, this should be the case under a "pure" DIT system. However, none of the Nordic countries actually applies this “pure” system. The reason has to do with a particular problem raised by this system, which has come to be known as its “Achille’s heel” (Sørensen, 1994). Under the Nordic system, business activities are in fact taxed differently depending on their organisational form. This encourages tax avoidance and particularly the transformation of more taxed labour income into less taxed capital income through the incorporation of business activities. To prevent this practice, many different solutions have been adopted by the Nordic countries<sup>11</sup>; none of them, however, is completely satisfactory.

The basic idea of the ACE proposal differs substantially from the Nordic DIT. Under this system a company would be entitled to deduct an allowance (ACE) for equity. This allowance is computed by applying the market interest rate on government bonds ( $r$ ) to a measure of the equity invested into the company ( $E$ )<sup>12</sup>. This imputed component of profits, which approximates “normal profits”, goes completely untaxed at the corporate level. It was also suggested to fully exempt dividends, interests and capital gains at the personal level and to tax extra profits at a rate equal to the top rate of the personal progressive income tax. The ACE corporate tax system, if accompanied by an expenditure tax at the personal level, has well known neutrality properties (see Devereux and Freeman, 1991). The cost of capital is unaffected by taxation even when taking into account personal taxation; it is neutral with respect to inflation; and if extended to the non corporate sector, is neutral with respect to the choice of organisational form too.

However, the ACE system has a major drawback (Bond, 1997). To be revenue neutral, it requires a large increase in the statutory rate on extra-profits (or rents). Whereas in a closed economy the taxation of economic rents may be an efficient way of collecting revenue, these effects might be dramatically different in an open economy. First, companies would be stimulated to shift

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<sup>11</sup> Norway extends the division method to closely-held companies with active shareholders, Finland to all companies not listed on the stock exchange, Denmark maintains a certain degree of double taxation for dividends and capital gains.

<sup>12</sup> Note that in the ACE system the return on equity should simply be the market interest rate with no correction for the higher risk of equity capital (Bond and Devereux, 1995).

profits to less taxed jurisdictions. Secondly, and even more worryingly, in a world where product and capital markets are not perfectly competitive, high statutory and average tax rates may significantly affect the investment and location decisions of the firms. As underlined by an increasing theoretical and empirical literature (Feldstein et al., 1995, Bond 1997, Hubbard, 1997, Devereux and Griffith 1998, and Desai and Hines, 1999), for highly mobile multinational companies, the statutory and average tax rates on profits might even be more important for investment and location decisions than the effective marginal tax rate. This may help explaining why a radical proposal like the ACE, despite its attractive neutrality properties, did not have much success in the real world<sup>13</sup>.

### *5.2 The Italian DIT: 1998 reform and final “regime”*

The Italian DIT shares with the two previously mentioned reform schemes the idea of dividing profits into two components, of which “normal profit” (“ordinary income” in the Italian legislation) is computed first. The division of income is extended to both the corporate and non corporate sector, as in the ACE proposal; this is a crucial difference with the Nordic DIT. “Normal profits” are computed by applying a nominal rate of return to a measure of the equity invested into the firm. This rate is set yearly by the Government with reference to the market interest rate on public and private bonds and may be increased up to three percentage point. The need for this correction arises mainly because of the imperfect system of loss reporting<sup>14</sup>: if the ordinary return is higher than total profits or if the firm incurs in operating losses, the amount of profits which cannot benefit from the 19 per cent preferential tax rate may be carried forward for four years. Neither interest rate adjustment of carried forward losses, nor carry back are allowed for by the tax law

Table 2 shows one of the most important differences between the computation of “normal profits” under either the ACE proposal or the Nordic DIT, and the Italian DIT as introduced in 1998. In the latter case only new subscriptions of capital and retained earnings ( $\Delta E$ ), rather than the whole equity capital ( $E$ ), were used as a base to compute the new allowance. The starting point is 1996, when the reform was originally presented by the government. Thus the “ordinary income” is

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<sup>13</sup> As far as we know, the closest experience is the interest-adjusted income tax introduced in Croatia in 1994 (Rose and Wiswesser, 1998). And it is interesting to note that in this case the decision concerning the tax rate was surrounded by a lively debate. The Ministry of Finance had proposed a 35% rate, but the Croatian Parliament lowered it to 25%: “The main reason was that - from an international point of view- a low profit tax rate would be an appropriate signal to attract foreign investors” (Rose and Winwesser, 1998, p. 272).

<sup>14</sup> For a general discussion, see Hagen and Sørensen (1998). Even under full loss-offset, however, the imputation rate should be appropriately adjusted so as to take into account the nature of the investment. Under interest rate uncertainty,

zero at the beginning and increases over time as the “new” equity capital, i.e. new subscriptions and retained earnings from 1996 onwards ( $\Delta E_{96}$ ), progressively substitutes the “old capital”.

The decision to restrict the computation of the ordinary return to “new” capital has one major explanation: to limit short-term revenue losses, while giving firms the desired incentives to equity finance<sup>15</sup>. From the point of view of a *new* investment, incentives are in fact the same, independently of whether only the new equity, or the whole stock of equity, is taken into account in computing the ordinary return. What is different, of course, is the effect of the two mechanisms on the *average* tax rate on profits (both normal and extra-profits). The incremental solution adopted in Italy favours new or young companies, which need high injections of equity capital. For these activities the reform brings about a very significant reduction in the average rate of profit taxation, that could become as low as 27 per cent for new firms. On the contrary, highly capitalised companies did not benefit much from the reform in the short run.

As a result of an intense debate upon these issues, the Ministry of Finance announced amendments to the original reform. Partnerships and individual firms are now allowed to compute the “ordinary return” on the whole stock of equity. For corporations, a just passed new legislation allows them to count any increase in new equity and retained earnings for a multiple of its value in computing the ordinary return. This reduces further the cost of capital on a new equity financed investment and accelerates the transition towards a system in which the ordinary return will be computed with respect to all (new and old) equity capital. This will also increase the number of companies hitting the floor of the minimum average tax rate of 27 per cent. But the government’s expressed intention is to abolish this minimum tax as well, thus allowing for a further reduction in average taxation.

The last row in Table 2 illustrates the tax system towards which Italy seems to be moving, considering these legislative changes and expressed intentions. The “final regime” is one in which the imputed normal return on all equity capital is taxed with a rate of 19 per cent, which is in fact equal to the basic tax rate of the personal progressive income tax, as in the Nordic division system. Residual profits in both the corporate and non corporate sector are taxed with higher rates. Once the 27 per cent minimum average tax rate is removed, the Italian system will be very similar to the

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Panteghini (2000) shows that the imputed rate of return ensuring neutrality must be higher than the interest rate on default-free long-term bonds, if the investment is not fully reversible.

<sup>15</sup> One of the most important problems which can arise by limiting the allowance to “new” capital is the incentive it gives to turn “old” assets into “new” assets. This problem has been dealt with in Italy by rather complicated anti-avoidance provisions.

Nordic DIT, with the important difference that in Italy the division system is applied to all types of business activities.

More generally, what seems to characterise most the Italian DIT is the idea of taxing both normal and extra-profits, although with two different rates. In this respect, the Italian solution lies in between the Nordic DIT and the English ACE. Since the basic idea is to tax extra-profits with a higher rate, one may then wonder why the government did not go all the way for a neat solution like ACE exempting altogether normal profits from taxation. The answer lies again in the attempt to balance conflicting needs. By totally exempting normal profits, the tax rate on extra-profits would have been higher to provide enough revenue. But a higher tax rate could have been interpreted as a negative signal by foreign investors. And not giving this signal was considered more important than violating the neutrality properties concerning the cost of capital, as it is done, for the reasons explained, by both IRAP and DIT. Putting it differently, the traditional efficiency argument which guided the tax reform debate in the 1980s, recommending a zero effective tax rate on marginal profits, had to be weighted against the need to reduce the statutory tax rate on profits to cope with the increasing international tax competition of the 1990s. In section 7, we provide some quantitative evidence of how far the reform goes in balancing these two competing objectives.

## **6. Personal taxation of capital income.**

The illustration of the Italian reform would not be complete if we did not briefly account for the changes in capital income personal taxation. Although the impact of personal taxation in an open economy is quite controversial (see section 7.1), it is nevertheless important to provide a full picture of the new system. Very briefly, two main objectives were pursued by the reform on these grounds: to widen the tax base to all types of capital income (including capital gains and derivatives income) and to restrict taxation to two final rates only, 12.5 per cent and 27 per cent, with the aim of a future convergence towards a unique, intermediate, value. In practise, after the reform, most interest income, dividends and “accrued” capital gains are taxed at the lower rate of 12.5 per cent. The most important exceptions are interest income from short-term bank deposits, capital gains on “qualified” sales (both taxed at the higher rate of 27 per cent), and dividends received by a “qualified” shareholder, which must be included in the personal tax base and receive a full tax credit



for corporate taxation (but not for the regional IRAP)<sup>16</sup>. A quite complex system was introduced to avoid that this inclusion cancelled out some preferential treatment of profits at the corporate level, such as the same DIT allowance.

One of the most important innovations of the reform clearly concerns the taxation of capital gains at accrual. This has several and well known merits: it eliminates the “lock-in” effects usually associated with taxation at realisations, reduces arbitrage opportunities and does not discriminate between retention and distribution of profits at the company level. In reality, and for obvious reasons, taxation at accrual is complete only in the case of managed portfolios through approved intermediaries. In that case, what is really taxed is the difference between the market value of the managed portfolio at the end and at the beginning of the period. In all other cases, capital gains (losses) are instead taxed (deducted) at realisation, but an adjustment mechanism is envisaged with the purpose to equalise, with some degree of approximation, the tax treatment of realised and accrued capital gains.

## **7. Marginal and statutory tax rates after the reform**

### *7.1 The user cost of capital*

Table 3, which is taken by our companion paper (2000), presents the results of our estimations for the cost of capital before and after the reform. In the Table, we consider three different assets with different life spans and different degree of discrepancy between economic and (Italian) fiscally allowed depreciation. “Machinery 1” is the case where the discrepancy between “true” economic depreciation and fiscally allowed depreciation is the larger; “Machinery 2 and Buildings” is an intermediate case where this discrepancy is smaller<sup>17</sup>; and finally, the last column represents the extreme case of an asset with infinite life or where true and fiscally allowed depreciation perfectly coincides.  $\sigma$  is a parameter measuring the degree on which the company is constrained on the credit market. More precisely,  $0 \leq \sigma \leq 1$  measures the maximum proportion of debt financing allowed to the firm on the marginal investment; with  $\sigma=0$  indicating the case where the firm has no access to the credit market at all, and  $\sigma=1$  the opposite case of full debt financing. In the table, the cost of capital is computed for the three cases which are possible under both tax

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<sup>16</sup> The term “qualified” refers to a minimum share-holdings level or voting rights. For those companies listed on the stock exchange, share-holdings and sales are “qualified” if they represent at least 2% of the voting rights or 5% of the equity capital. For companies not listed on the stock exchange the percentage are 20% and 25% respectively.

<sup>17</sup> More precisely, Machinery 2 refers to a case where economic and fiscal depreciation coefficients coincide but firms have the opportunity to anticipate depreciation during the first three years. Buildings are longer life assets, for which anticipated depreciation allowances have a lower impact.

regimes depending on the interplay between personal and corporate taxation (see again Bordignon et al (2000)). In case 1 the credit market constraint is not binding at the margin, as the implicit constraint imposed in Italy by the so called “Uniform Reporting Convention” on the distribution of dividends (see Kannianien and Söderstern, 1995) reduces even further the amount of the marginal investment which can be financed with debt. The other two cases represent the alternative situation where the debt constraint is binding, and therefore the firm must either use new issue of shares (case 2) or retention (case 3) to finance the residual investment, depending on which of the two source of finance turns out to be cheaper.

**Table 3**  
**The cost of capital under the pre- and post-reform tax regime**  
(In percentage points. Fixed-r case;  $r=r^*=5$  per cent)

Source of finance	Machinery 1		Machinery 2 And Buildings		Non-depreciable assets	
	Pre-reform	Post-reform	Pre-reform	Post-reform	Pre-reform	Post-reform
<b>Case 1 (UR)</b>	4.6	5.1	4.8	5.3	5.0	5.4
<b>Case 2*</b>						
• $\sigma = 0$	6.4	5.5	8.4	6.0	10.1	6.4
• $\sigma = 0.2$	5.3	5.3	7.3	5.8	9.1	6.2
• $\sigma = 0.4$	4.6 <sup>(1)</sup>	5.1 <sup>(1)</sup>	6.3	5.6	8.1	6.0
• $\sigma = 0.6$	4.6 <sup>(1)</sup>	5.1 <sup>(1)</sup>	5.3	5.4	7.1	5.8
• $\sigma = 0.8$	4.6 <sup>(1)</sup>	5.1 <sup>(1)</sup>	4.8 <sup>(1)</sup>	5.3 <sup>(1)</sup>	6.0	5.6
• $\sigma = 1.0$	4.6 <sup>(1)</sup>	5.1 <sup>(1)</sup>	4.8 <sup>(1)</sup>	5.3 <sup>(1)</sup>	5.0	5.4
<b>Case 3**</b>						
• $\sigma = 0$	6.6	5.7	8.9	6.4	10.9	7.0
• $\sigma = 0.2$	5.4	5.4	7.7	6.1	9.8	6.7
• $\sigma = 0.4$	4.6 <sup>(1)</sup>	5.1 <sup>(1)</sup>	6.5	5.7	8.6	6.3
• $\sigma = 0.6$	4.6 <sup>(1)</sup>	5.1 <sup>(1)</sup>	5.4	5.4	7.4	6.0
• $\sigma = 0.8$	4.6 <sup>(1)</sup>	5.1 <sup>(1)</sup>	4.8 <sup>(1)</sup>	5.3 <sup>(1)</sup>	6.2	5.7
• $\sigma = 1.0$	4.6 <sup>(1)</sup>	5.1 <sup>(1)</sup>	4.8 <sup>(1)</sup>	5.3 <sup>(1)</sup>	5.0	5.4

(1) The cost of capital cannot be less than that in case 1, because of the Uniform Reporting constraint.\* Case 2: New issue of shares is preferred to retention.\*\* Case 3: Retention is preferred to new issue of shares. Source: Bordignon et al., 2000.

The Table suggests that the reform has been indeed successful in levelling the playing field between different sources of finance and assets of different life. Although debt is still slightly tax advantaged after the reform, and in no case the reform achieves full real neutrality (i.e. in no case

the number reported into the table equals the 5 per cent market interest rate), it also clearly reduces the pre-existing distortions. Because debt interests are now taxed with IRAP, the cost of capital turns out to be slightly higher after the reform in case 1, when the company is not constrained on the credit market. However, in the surely more realistic case where the firm is either constrained on the debt market or for some other reasons must at least in part use equity to finance the investment, the cost of capital is lower and closer to 5 per cent market interest rate. The reduction in the cost of capital is particularly robust for firms which need large injections of new equity (say, new firms) or for investments in assets with longer life and lower fiscal allowances for capital depreciation. In these cases, the cut in the cost of capital induced by the reform may be as large as 40 per cent.

The results of Table 3 are based on a model which implicitly assumes a closed economy, so much that they include the personal taxation of a representative domestic saver investing into the company. As is well known, in an open economy the role of personal taxation on investment incentives is more controversial, as it depends on the assumptions one makes on the type of arbitrage taking place in the international market, the identity of the marginal shareholder, the tax treatment of foreign income and the size of the economy. The results of Table 3 could still be appropriate for a small open economy, if we assumed (as in Sinn, 1987, 1988) that the representative shareholder is a domestic resident, arbitrage occurs at the international level on the debt market and the resident principle is in force. Under these assumptions, and leaving aside the possibility of exchange rates variations, an investor would be indifferent between domestic and foreign assets when all national pre-tax returns are the same and equal to the uniform world interest rate. In this case, what is relevant for investment incentives is the tax wedge between the marginal product of capital, as computed in Table 3, and the pre-tax international market interest rate (5 per cent in the Table).<sup>18</sup>

However, other assumptions could be made, which completely ruled out personal taxation from the computation of the cost of capital in a small open economy. This would happen, for instance, if the representative investor was a tax exempt institutional investor, such as a pension fund (De La Fuente and Gardner, 1992; Chennel and Griffith, 1997) or if both debt and equity were fully traded on the international market and the residence principle prevailed (Boadway, Bruce and Mintz, 1984; Boadway and Bruce, 1992)<sup>19</sup>. For these reasons, it may be interesting to analyse the effect of the reform on the cost of capital without considering any personal taxation of dividends,

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<sup>18</sup> See Boveneberg et al. (1990) for an alternative approach.

<sup>19</sup> See also Apel and Södersten (1999) for the analysis of an intermediate case with international trade in bonds and shares of large domestic firms, but with exclusively domestic ownership of small firms.

interests and capital gains. Table 4 performs this exercise, excluding from the computation the tax credit on dividends too, which is rarely extended to non residents.

**Table 4**  
**The cost of capital without personal taxes and tax credit on dividends**  
(In percentage points. Fixed-r case;  $r=r^*=5$  per cent)

Source of finance	Machinery 1		Machinery 2 And Buildings		Non-depreciable assets	
	Pre-reform	Post-reform	Pre-reform	Post-reform	Pre-reform	Post-reform
<b>Case 1 (UR)</b>	5.0	5.1	5.0	5.3	5.0	5.4
<b>Case 2*</b>						
• $\sigma = 0$	7.0	5.7	9.0	6.4	10.7	7.0
• $\sigma = 0.2$	5.9	5.4	7.8	6.1	9.6	6.7
• $\sigma = 0.4$	5.0 <sup>(1)</sup>	5.1 <sup>(1)</sup>	6.7	5.7	8.4	6.3
• $\sigma = 0.6$	5.0 <sup>(1)</sup>	5.1 <sup>(1)</sup>	5.5	5.4	7.3	6.0
• $\sigma = 0.8$	5.0 <sup>(1)</sup>	5.1 <sup>(1)</sup>	5.0 <sup>(1)</sup>	5.3 <sup>(1)</sup>	6.0	5.7
• $\sigma = 1.0$	5.0 <sup>(1)</sup>	5.1 <sup>(1)</sup>	5.0 <sup>(1)</sup>	5.3 <sup>(1)</sup>	5.0	5.4
<b>Case 3**</b>						
• $\sigma = 0$	7.6	5.7	10.1	6.4	12.3	7.0
• $\sigma = 0.2$	6.1	5.4	8.6	6.1	10.8	6.7
• $\sigma = 0.4$	5.0 <sup>(1)</sup>	5.1 <sup>(1)</sup>	7.2	5.7	9.4	6.3
• $\sigma = 0.6$	5.0 <sup>(1)</sup>	5.1 <sup>(1)</sup>	5.5	5.4	7.3	6.0
• $\sigma = 0.8$	5.0 <sup>(1)</sup>	5.1 <sup>(1)</sup>	5.0 <sup>(1)</sup>	5.3 <sup>(1)</sup>	6.1	5.7
• $\sigma = 1.0$	5.0 <sup>(1)</sup>	5.1 <sup>(1)</sup>	5.0 <sup>(1)</sup>	5.3 <sup>(1)</sup>	5.0	5.4

(1) The cost of capital cannot be less than in case 1, because of the Uniform Reporting constraint.\* Case 2: New issue of shares is preferred to retention.\*\* Case 3: Retention is preferred to new issue of shares. Source: Bordignon et al., 2000.

As can be seen by comparing Table 4 and 3, when only corporate taxes are taken into account the reform appears even more beneficial for investment incentives: the cost of capital is now always lower after the reform. This is so because of the more uniform treatment of capital income at the personal level induced by reform, which makes the cost of capital less affected by personal taxation.

The true question, however, is not how much the cost of capital was reduced in Italy by the reform, but how much it was reduced with respect to international competitors. A proper additional study would be necessary to undertake such a comparison; but we may mention the results of a recent comparative studies which explicitly took into account the effects of the Italian reform (Baker

& McKenzie, 1999). The results, obtained by using a King and Fullerton (1984)'s methodology, are quite striking. Once that the DIT allowance is taken into account, Italy ranks third among the EU countries with the lower effective marginal tax rate, well below countries which are traditionally considered as more attractive for foreign investment.

## 7.2 *Statutory rate of taxation*

This favourable ranking is not equally observable when one moves from effective marginal tax rate to the statutory and average effective tax rates. Focusing only on the former for simplicity<sup>20</sup>, Table 5 reports the evolution of these rates for the EU countries in the most recent years. As can be seen from the Table, despite the sharp fall in the statutory rate brought about by the reform, the distance with the other EU countries was not entirely removed. As for the most profitable companies the average statutory rate is certainly closer to the upper bound of the 31-41 per cent interval, corporate profits and rents are still on average more taxed in Italy than in most other EU countries. Furthermore, the distance between Italy and the other EU countries may be widening again, following the continuing policy of tax reduction followed by these countries<sup>21</sup>.

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<sup>20</sup> Strictly speaking, in assessing the relative tax competitiveness of a country for a mobile multinational firm one should refer to the average effective tax rates (i.e. the proportion of economic rents taken by the government in taxation) rather than to the statutory tax rates (i.e. Devereux and Griffith, 1998,). However: 1) statutory tax rates are certainly more relevant for pure profits shifting behaviour; 2) they may provide an easy assessable signal to international investors; 3) without personal taxation and tax credit on dividends, average effective tax rates increase with profitability and tend towards the statutory rate. The latter may therefore represent an acceptable approximation of the incentive to locate in the country by very profitable multinational companies.

<sup>21</sup> Just to mention a few examples, Austria introduced a DIT system very similar to the Italian one, with a tax rate on "normal profits" of 25 per cent, Germany is passing a reform which reduces the corporate tax rate to a uniform flat rate of 25 per cent and Ireland is suggesting to decrease the normal tax rate up to 12.5 per cent since 2003.

**Table 5 Statutory tax rates on Corporations (including local taxes); in percentage terms.**

<b>Countries</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Austria	34	34	34
Belgium	40,17	40,17	40,17
Denmark	34	34	32
Finland	28	28	28
France	36,66	36,66	36,66
Germany	55,08	54,3	49,7
	(41,05) (1)	(40,54) (1)	(40,54) (1)
Greece	35	35	35
Ireland	36 (10) (2)	32 (10) (2)	28 (10) (2)
<b>Italy</b>	<b>53,2</b>	<b>41,25 - 31,25</b>	<b>41,25 - 31,25</b>
Luxembourg	39	37,45	37,45
Netherlands	35	35	35
Portugal	37,6	37,6	37,6
Spain	35	35	35
Sweden	28	28	28
United Kingdom	31	31	30
<b>UE Average (excluding Italy)</b>	<b>36,0</b>	<b>35,6</b>	<b>34,8</b>

(1) The rate in brackets refers to distributed profits.

(2) The figure in brackets is the tax rate on manufacturing industries and qualified companies located in certain areas of the countries.

Sources: Ruding Report (1992), Osservatorio Fiscale IRS n.13/14 Nov. 1997, n.16 July 1998, n. 18 March 1999.

This may partly explain the somewhat disappointing evidence regarding the effect of the reform on foreign investment (see the next section). Indeed, Italy has very few specific “location rents” which can compensate for a higher rate of taxation, and on the contrary taxation may well have to compensate for other “non tax wedges” which strongly affects the overall competitiveness of the country. In a recent overall index of competitiveness computed by Business International-Economist (1999), for example, Italy ranked at the 13<sup>th</sup> place, just above Greece, in a list of the 15 EU countries. Lack of infrastructures, heavy bureaucracy, and a rigid labour market, rather than corporate taxation, were singled out by the Report as the main reasons for this very poor performance of the country. Faced with this evidence and the numbers shown in Table 5, one is then tempted to conclude that in spite of the reform, overall business taxation in Italy may still be too high.

## **8. Behavioural responses and implementation issues**

It is clearly too early to assess the behavioural responses to the reform. The immediate reaction by the business community was not positive, however. IRAP, in particular, raised considerable criticisms. Some of the most innovative features of the reform, such as for example the taxation of interests at the firm level and the fact that IRAP is not deductible from the tax base of either IRPEF or IRPEG, were perceived as a way to increase taxation, rather than a way to finance the removal of several other taxes on business. This perception is still widespread today, although in 1998 the revenue from IRAP turned out to be much lower than envisaged, and the government decided nevertheless not to compensate for the lower revenue by raising the IRAP tax rate. To understand this scepticism, one has also to consider the distributive effects of the reform. While on the whole the reform certainly benefited corporations<sup>22</sup> shifting some of the burden of taxation to the non corporate sector and professionals, not all firms gained by the reform. In particular, corporations with low profitability and high debt equity ratios were penalised by it. According to estimates by Bontempi et al. (1998) on a sample of companies, around 50 per cent of them saw an increase in their overall tax burden following the reform.

DIT gained more support, because it was perceived as an incentive: that is, companies knew that some of them would gain, and none would lose, from it. However, for the reasons explained in section 5, it was not considered a big thing either. Indeed, pressure mounted for having more immediate and visible incentives to investment, such as preferential treatment of reinvested profits. And, in fact, in addition to strengthening the DIT mechanism, a temporary incentive of this type was introduced by the Government for investment undertaken in 1999 and 2000.

On this background, one should not expect strong short terms effects of the reform.. Taxation is only one of the factor affecting companies' behaviour and economic agents, especially foreign investors, take time to adjust. This may even be truer in the Italian case, because of the above mentioned attitude towards the reform, the complexity of the legislative changes, and some uncertainty on the part of the government itself in defining important details and advertising the reform. Still, by looking at some recent figures on companies' behaviour, one can see some signals which may be indicating that the reform is beginning to bite

For example, as the reform is particularly beneficial to new firms (see section 5), one would have expected an increase in the birth of new firms in the years following the reform. This is indeed what happened. Despite the very low growth rates of GDP in the 1998-1999 period (1.5 per

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<sup>22</sup> A recent survey by Confindustria (1999), the Confederation of Italian Industries, for example, show that on a sample of 1000 manufacturing firms, the overall tax burden decreased by 2.4 percentage points in 1998.

cent and 1.4 per cent, respectively), the number of new firms (net of ceased firms) raised by 1.5 and 2.0 per cent respectively. Furthermore, a larger share of these new firms belonged to the corporate sector than in the past, so much that the ratio of corporations on total firms raised slightly during the period, from 45.4 to 46 per cent (Infocamere, 2000 and Istat, 2000). Again, this was as expected since the reform benefited more the corporate than the non corporate sector.

Domestic and foreign investments certainly did not boost in 1998, because of the depressed economic conditions, but the figures for 1999 look less dim. For example, although Italy is still receiving a smaller quota of foreign direct investments than most other EU countries of comparable size, they doubled in 1999 with respect to 1998, moving from 4,500 to 9,000 billions lira. On the contrary, Italian direct investment abroad halved, from 21,000 to 10,400 billions lira (Bank of Italy, March 2000). It is of course hard to say how much of this effect was due to the reform<sup>23</sup> and how much to other factors, and this should be the task of future serious empirical research, but the reform certainly helped.

Similarly, one of the most important effect of the reform was to reduce the tax discrimination against equity financing. As it takes time to change firms' financial structures, the effects of the reform on this issue will likely be apparent only in a few years time (see Cascone et al. 1999). However, it is interesting to note that the reduction of the tax burden on new equity was accompanied by a rather sharp increase in the number of companies listed on the Stock Markets, from 215 to 245 since January 1998, and by a substantial increase in the capitalisation of the Italian Stock Market, from 30.8 per cent of GDP in 1997 to 65.1 per cent in 1999. Several different factors may be at the root of this process (mainly, the ensuing process of privatisation in Italy), but again the reform certainly helped. In particular, for the new listed companies, the tax rate on the "ordinary income" for the first three years after the admission on the official stock exchange market is lowered from 19 to 7 per cent and the minimum average rate to 20%.

## **9. Concluding remarks**

Reforming business taxation in an open economy is a complex issue. Traditional efficiency arguments would lead reformers to suggest to eliminate taxation at the margin and to tax instead

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<sup>23</sup> In passing it should also be noted that not all foreign investments were stimulated by the reform. A debt financed investment was completely untaxed before the reform, whereas it is subject, at present, to a source tax (IRAP). The existing international tax treaties do not straightforwardly and automatically apply to the new tax. In some cases, for



economic rents. But in non competitive markets with highly mobile firms, infra-marginal taxation may be at least as important as marginal taxation in affecting investment and location decisions. Faced with these conflicting evidence and with severe budget constraints, Italian politicians attempted a mid-way solution; they reduced the cost of capital for an equity financed investment, but they did not go as far as to eliminate altogether the tax wedge on the marginal investment, because this would have implied an excessive increase in the rate of average taxation to raise enough revenue. And while it could be argued that the Italian reform was not radical enough to compensate for the several other “non tax wedges” which strongly reduce the overall competitiveness of the country, it should also be recognised that it represents an interesting and original compromise between competing needs. By taxing interests at the business level with IRAP, the reform allowed for a sharp reduction on the average rate of taxation on profits, while at the same time reducing the advantage for debt financing at firm level. By enforcing a dual tax system with different but positive tax rates on both normal and extra-profits, the reform further reduced the advantage for debt financing of investments, while avoiding raising average taxation on extra-profits at prohibitively high levels. Finally, by extending the dual tax system to both the corporate and the non-corporate sector (including self -employed and professionals), the Italian reform avoided the "Achille's heel" of the Nordic DIT and helped reducing the traditional tax discrimination against corporations. Although the reform was tailored to address some specific weaknesses of the Italian economy, there may then be lessons to be learned for other countries as well.

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example with the US and France, the international tax treaties have already been amended. In other cases, revisions are still under course.

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