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**The Role of Tax Incentives in Voluntary Pension
Schemes in Italy: What can other Countries learn from
this?**

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**THE ROLE OF TAX INCENTIVES IN VOLUNTARY PENSION SCHEMES IN ITALY:
WHAT CAN OTHER COUNTRIES LEARN FROM THIS?¹**

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Paolo Bosi and Maria Cecilia Guerra

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The companion paper on the effects of the pension system reforms in Italy tries to estimate the effect of such reforms on the accumulation of private wealth. This paper looks at a widely debated aspect of Italian fiscal policy: the role of tax incentives in voluntary pension schemes.

The development of funded pension schemes, designed to accompany or replace the existing PAYG system, is on the agenda of most developed countries. In Italy, tax incentives are frequently advocated to encourage this reform. However, it is difficult to find sound theoretical and empirical support for the proposal of tax incentives from the point of view of efficiency or equity. For this reason, our description and analysis of the Italian case is preceded by a section listing the economic and equity reasons for providing tax incentives to pension saving schemes, together with a short survey of empirical evidence for the effectiveness of this instrument in the most important industrial countries.

A second section then describes the evolution of voluntary pension schemes within the context of reform of the Italian pension system, including an evaluation of the tax incentives provided for by Italian law. One of the most important conclusions that emerge from our analysis is that, contrary to accepted opinion, tax incentives are only one, and not always the most correct, measure to be adopted by a policy designed to provide protection from the risks associated with old age.

A final section draws some policy conclusions and provides an insight into the possible lessons that a country like Japan can learn from the Italian experience.

1. Why do private pension plans enjoy preferential tax treatment?

The aim of pension systems in the more industrialised countries is not simply to ensure a universal minimum standard of living for the elderly. They are also designed to guarantee retired persons a living standard similar to the one they enjoyed during their working lives.

Most of the recent debate about pension reforms has focused on the extent to which benefits that exceed the required minimum should be provided via public PAYG schemes or privately funded pension schemes.

Public PAYG schemes are mandatory, whereas private ones may be either mandatory or voluntary. When faced with the choice of whether to subscribe or not to a pension plan, people may act in a short-sighted way, and fail to save enough for their retirement needs. The pension system as a whole (both public and private) may consequently fail to maintain incomes after retirement, and so mandatory saving may be necessary.

One alternative is to provide incentives to retirement savings. The most common incentive is the preferential tax treatment of pension plans compared to other forms of saving. This incentive

should encourage individuals to increase their retirement savings in a way that is *in the “public” interest*. The cost to the public budget of such tax expenditure is justifiable precisely because it finances behaviour that corresponds to a public interest.

In the pension systems of Continental Europe, a central role is still played by public PAYG schemes characterized by a high replacement rate, so that pension benefits represent a high percentage of average earnings during one’s working life. In the US and UK, on the contrary, PAYG systems guarantee a minimum income. Private pension plans, strongly supported by tax incentives, supplement this income by offering a pension that is more closely tailored the living standards of workers. The introduction of tax privileged pension plans or the reinforcement of existing ones are under investigation in many European countries, primarily as a consequence of the financial difficulties encountered by PAYG systems, as a result of the ageing of the population as a whole.

1.1. Characteristics of pension saving schemes

The purpose of providing tax incentives to pension plans is not that of encouraging saving *per se*, but of helping to establish the efficient size of *pension* savings. The exact definition of tax-favoured pension saving varies from one to another, but throughout the world qualified plans are accompanied by strict regulations designed to prevent tax avoidance and to enhance the efficiency of the incentive itself.

The most important characteristic is that deferred taxation has to be bound to certain specific features of the pension saving scheme, which, according to tax legislation, are as follows:

- the investment period: subscription to a pension plan is for a minimum period of time;
- access to pension benefits: access is only allowed when the beneficiary has reached a certain age, or after a suitable contribution period;
- the time pattern of benefit payment: annuities are generally preferred to lump sums upon retirement;
- the exclusion of assistance, such as the transfer of benefits to the spouse in case of premature death of the beneficiary during his/her working life;
- the prohibiting or limiting of the right to advance payment of accumulated savings.

All these provisions show that the essential aim of this kind of saving is to stimulate the accumulation of a suitable amount of funds for the retirement period, through the imposition of constraints on behaviour which could be affected by myopia or moral hazard.

1.2. Are tax incentives really effective?

Whatever their form, tax incentives should provide beneficiaries of pension saving with a higher return than that offered by other similar forms of saving.

Thus the incentive will only be effective if at least one of the following conditions is satisfied:

1) personal savings must be sufficiently elastic to the net rate of return. If this is so, the higher return provided by the tax-preferred pension plan can then produce a net flow of additional savings. The degree of savings elasticity is an empirical issue, since economic theory based on the traditional life-cycle hypothesis, cannot provide any insight into the size or the direction of this relation. The idea itself of a general interest elasticity of saving can hardly be conceived of in a behavioural context if the usual prerequisites of complete rationality in intertemporal decision-making, full information and the self-control of the individual in carrying out plans that mean foregoing short-term gratification, are removed.

A critical review of these arguments and of empirical research on saving interest elasticity can be found in Bernheim (2001), who shows that the results are contradictory or inconclusive.

2) Tax incentives should be capable of influencing the portfolio decisions of savers, inducing them to replace taxed with non-taxed assets. If there is perfect substitutability among different assets, then even a small spread between returns induced by a tax incentive will lead to the complete substitution of forms of saving. If tax advantages were circumscribed (e.g. by the existence of a ceiling to the tax deductibility of contributions to the saving plan), then the best thing to do would be to contribute up to the ceiling and then allocate the portfolio to other unprivileged assets.

Many empirical studies have tried to measure the impact of taxation on the structure of household portfolios. However, only a few of them have looked at countries other than the USA: we are now going to look at research conducted into the situation in the UK, the Netherlands and

Sweden. These studies broadly suggest that taxes do affect patterns of asset ownership (Poterba 2001), and that there is evidence of the possible impact of taxation on the choice of investment channel (asset selection). What emerges from all these studies, however, is the weak link between taxation and asset allocation (i.e. the amount invested in each of the selected forms of saving).

It should be pointed out that all these studies are affected by two orders of problem (Poterba 2001). Firstly, there is a lack of suitable data, in particular for the high net worth households, whose behaviour is of crucial importance for this kind of empirical validation. Secondly, there is a problem of portfolio incompleteness: in other words, individual portfolios do not include all available assets. Consequently, portfolio choices must be modelled according to a two-phase strategy. The first phase requires us to ascertain why investors hold incomplete portfolios. Asset demand must then be modelled according to the assets that a household owns.

Empirical studies of tax-deferred pension schemes have dealt with both problems by trying to decide how much of savings are “new” and how much are a consequence of the displacement of other forms of saving. Particular attention has been devoted to the study of Individual Retirement Accounts (IRAs) and 401(k)s in the USA. These studies, however, are blighted by a number of problems involving data availability and the weight of strong maintained hypotheses.

One of the most controversial problems is that in order to examine the impact of tax incentives, one should be able to compare the savings choices made by two different groups of individuals: those who are eligible for, and those who are excluded from, savings schemes. The higher savings of those individuals subscribing to saving plans could only be seen as a sign of the positive effect of tax incentives on additional saving if both groups were homogeneous from all points of view (identical initial assets, working conditions, age, wage and so on). This can only be achieved if eligibility for savings schemes is exogenous. This, however, raises certain difficulties (see Bernheim, 2001 and Scholtz, 2001): many empirical studies into IRAs relate to the 1982 –1986 period, when eligibility rules had not been changed. Research into 401(k) plans usually presupposes the exogenous nature of eligibility, as the decision to start a 401(k) plan is up to the employer. But it has been contested that the eligibility is significantly correlated with the underlying saving propensity: employers decision to install a 401(K)s plan may be a reaction to an employee demand. That means that eligibility is indeed endogenous. As a result, estimates of the entity of the savings components (new and reallocated saving) differ significantly. Moreover, as Scholtz (2001) has pointed out, the same empirical results can be interpreted differently. Engen, Dale and Scholtz (1996) examined many of the previous papers written on this subject and concluded that there was

little concrete evidence that tax incentives had led to any significant increase in saving; Poterba, Venti and Wise (1996) surveyed the same writings and reached the opposite conclusion.

On the whole, empirical research on saving motivation suggests that tax incentives have a positive effect, at least on the saving mix, but the importance of this effect requires further analysis.

1.3 Pension saving is not a perfect substitute for others forms of saving

Theory would suggest that the ability of a tax incentive to influence forms of saving is considerable if the alternatives offer a high degree of substitutability. This may not be the case with pensions saving, which is usually conditioned by numerous constraints.

In the theoretical case of the perfect financial market, where it is possible to save or dissave at will, at a given rate of interest, “constrained” pension savings satisfy the perfect substitutability condition. In this case, there are no liquidity constraints by definition. If pension savings offer a higher net return than other forms of savings, then it would be possible through arbitrage, to borrow funds at the market rate, subscribe to a pension plan and then repay debt with the pension benefits. However, we individuals live in an imperfect world, and are subject to liquidity constraints which hinder the transfer of purchasing power over time. It follows that pension savings becomes less easily substituted for other forms of savings in the case of those individuals more widely exposed to liquidity constraints.

The non-substitutability of pension savings increases if saving has not the only function to realize the intertemporal transfer resources over the course of time. The following example should help to illustrate this point more clearly.

Precautionary saving may be designed to cover the risk of unpredictable events (such as illness, unemployment and so on). This uncertainty may raise the preference for liquidity and reduce the interest rate elasticity of saving.

Usually pension saving, as we have said, does not allow for lump sum payments on accumulated savings, even in the case of the said unpredictable events. A pension saving scheme with tax incentives will not satisfy such needs.

Finally, the desire to bequeath can constitute an important reason for saving. Many nations’ tax laws provide that, upon death of the insured person, the latter’s pension benefits will not be completely transferred to the heirs, as the transfer would not be of a pension, but simply of assistance. This constitutes another case of imperfect substitutability and of the consequent minimal effectiveness of tax incentives for savings schemes. The problem could be met by policies aimed at

removing existing constraints, or by increasing the tax incentive. In the first case, policy effectiveness strongly depends on the particular institutional framework; in the second case, account must be taken of the cost to the state.

1.4 Tax incentives: their effectiveness and their distributive effects

Increasing tax incentives would seem the easiest option, but it is far from clear whether this would also be the most effective choice. Liquidity constraints which hinder access to pension plans differ in importance according to the age and economic condition of the individual: they are more stringent in the case of young people (with less purchasing power and more needs) than they are for old people; more so for the poor, less so for the rich. It is also likely that precautionary saving will be inversely related to the individual's economic situation. Raising tax incentives could have the unintentional effect of limiting pension saving mainly to older, richer individuals, who already display a greater propensity to saving and are more sensitive to return differentials, given that they are less affected by liquidity constraints. Such policies could not easily be justified on equity grounds. The problem becomes more complicated if one considers that the up-front deduction of contributions and tax-free accumulation in pension plans benefits people with higher marginal tax rates more than does others.

Empirical evidence seems to confirm such doubts.

1) Figures show that a high percentage of individuals subscribing to individual accounts do so at the contribution ceiling. Traditionally, in the case of IRA accounts this proportion stands at about 70% (Bernheim 2001). As we have said, the maximum contribution is typical of less constrained savers, while non-limit contributors are very likely to be individuals facing liquidity (or others) constraints.

2) Recent empirical studies of both the USA and the UK reveal a positive relationship between the marginal tax rate (and therefore the income level) of savers and their involvement in tax-sheltered activities.

Poterba and Samwick (1999) use tax rate changes as well as cross-sectional tax rate heterogeneity to identify the effects of taxation on asset demand in the 1983, 1989, 1992 and 1995 Surveys of Consumer Finances. They found that the probability of households owning tax-deferred accounts is a positive function of their marginal tax rate.

Banks and Tanner (2000) find a similar correlation between tax status and take up of tax-favoured saving schemes (their research does not look at pension plans, however, but other schemes with tax incentives, such as PEPs). They show that a higher rate tax-payer is more likely to be a

PEP holder than a basic rate tax payer by 6 percentage points. Their probit regressions for the ownership of tax-favoured assets compared to similar assets subject to tax (unit trusts and investment trusts) show that, taking into account other factors (such as wealth, age, education), marginal tax rates significantly affect asset choice.

3) Recent figures for the USA reveal a positive relationship between the pension plan subscription rate and the income and age of the taxpayer. G.R. Springstead and T.M. Wilson (2000) compared such rates in three existing USA voluntary individual account-type plans: (IRAs), 401(k)s and (TSP). They discovered that subscribers to these plans tend to be older, higher earners, as well as male, full-time workers, and either white or from a non-black ethnic minority, to a disproportionate degree compared with the population on the whole. The tax subsidisation of retirement savings in other countries is also gender biased, since women have fewer opportunities for full-time employment with pension benefits, they experience more frequent interruptions to their working lives due to care-giving responsibilities, and they earn less than men on average, thus accruing lower benefits.

4) As can be clearly seen from official reports and research, there is serious concern in both the USA and the UK over an insufficient level of pension coverage, in particular for poorer people, within an institutional framework where private pension saving is highly encouraged by tax incentives. In the UK, where high tax incentives are offered on personal savings, and not only for pension purposes, HM Treasury (2001) reports that, according to Inland Revenue statistics published in 2000, 94% of total personal sector wealth, including housing and pensions, is owned by the wealthiest half of the adult population, and 75% is owned by the wealthiest quarter. This inequality has increased over time. In 1997, one in ten households had no form of savings at all (including housing, pensions and life assurance and all liquid financial savings apart from current accounts). This figure had almost doubled since the beginning of the 1980's.

Scholtz (2001) investigates the adequacy of savings for retirement purposes in the USA, using estimates of the percentage of average consumption throughout a household's working life that could be financed by transforming all pension assets into annuities upon retirement. This consumption replacement percentage varies a lot from one income decile to the next. The median percentage of households in the bottom decile reaches 46,3% (which includes housing wealth). Scholtz also shows that for the typical household in the two bottom lifetime-income deciles, social security is in reality the only source of income for retirement consumption.

The above results suggests that tax incentives alone are not the most effective instrument with which to promote pension saving plans, particularly if policy target savers include poorer, younger people faced with stronger liquidity constraints.

1.5 Are there any alternatives?

Even though the effectiveness of tax incentives is somewhat limited, it does not follow that the only alternative is to reduce the voluntary content of the pension system in favour of forms of compulsory saving, as is sometimes suggested in official reports (see, for example, that of the U.S.A's Department of Labor (1998) Secretary of State for Social Security).

Among alternative answers to the problem of encouraging subscription to voluntary pension plans, we would like to give particular attention to two of them which seem more suitable for those in the lower-income bracket.

A first set of policy measures involves the control of the administrative cost of pension plans. As has been frequently claimed, both in regard to the USA, Europe and Latin America (often presented in the 90s as a testing ground for the privatisation of public pension systems), when the administrative costs of (individual) pension plans are correctly accounted, the gross rate of return is considerably reduced. The reduction is highly variable, and may reach 40% of the gross return. Such aspects deserve careful consideration, as the administrative costs can offset, and in some cases exceed, the tax benefit.

Moreover, administrative costs depend on the personal characteristics of those subscribing to the saving plans. Poorer people, who usually contribute less and for shorter periods, are penalized to a greater extent by fixed costs (like initial costs), which are independent of the length and entity of the contribution (Cook and Johnson, 2000, H.M Treasury, 2001). The institution of schemes like the Stakeholder plans introduced in the UK in 2001, which do not penalize irregular or shorter contribution periods, could be the right answer.

2) A second set of policy proposals regards the promotion of greater public information and financial education. Economic literature heavily underlines the usefulness of a full and clear explanation of the risks of short-sighted behaviour with regard to the needs of old age. It is also very important to give individuals all the information they need to choose the most suitable plan. These kinds of policies benefit less educated, less well-off people more, people who have more problems in getting and decoding economic information.

2. The role of taxation in the promotion of a “second pillar” in Italy

The evolution of policies such as those introduced during the last decade, designed to introduce a second pillar to the Italian pension system, can be seen as a useful case study in our evaluation of the effectiveness of tax incentives discussed in the previous section. All the reform proposals in this area were in fact based on the idea that the weakness of voluntary funded pensions was largely due to the insufficient tax incentive offered to this form of pension saving.

2.1. A brief history

This story began in 1993 with the introduction of the first pension fund regulations and the establishment of a tax regime for such funds. Until then, complementary forms of pensions were rarely found, usually in the banking sector. There were no individual retirement accounts, with the exception of life insurance policies, providing a lump sum payment or an annuity at the end of a predetermined period of contributions.

An important role was played, however, by an old severance pay scheme which continues to exist, the TFR (*Trattamento di Fine Rapporto*), instituted in the 20's and calculated on the basis of an agreement between the trade unions and business associations within the field of private sector industrial relations. According to the laws governing this program, employees are forced to save part of their wages (roughly one month's wages per year) and to lend it to the firm where they work. At the retirement date, or in the case of dismissal, an employee gets back the accrued contributions, capitalised at a rate of 1.5% plus 0.75% of the inflation rate. The TFR is funded by a book reserve.

The 1993 reforms saw the light of day at difficult time for Italian public finances. The measures taken to achieve fiscal consolidation also included reductions in the pension benefits of the generous public PAYG system. One of the policy goals was to encourage a private pension system. The central idea, which was to permeate all subsequent developments, was to replace the TFR with pension funds, mainly closed funds, promoted by firms and unions, leaving any decisions about the terms of the substitution to employers and employees (represented by the business associations and the unions respectively). It should be pointed out that in the Italian pension system, if we sum the extremely high, public old-age pension contributions (32% of income) with the TFR contribution rate (7% of income), we get the highest level of contributions, and consequently of

pension benefits, in Europe. Given this situation, for dependent workers, there is very little room at all for any other form of pension².

The abandonment of the TFR was thought to be a good option for workers, who could reasonably expect higher returns from investing in a funded pension plan. The main resistance to such a plan was expected to come from employers, who lose a low-cost source of finance. Firms, however, could expect to take advantage of the creation of a thicker financial market and the opportunity to use their contributions as fringe benefits for employees.

The most attractive aspects of the replacement of the TFR by pension funds are as follows:

- funds may be supplied to all workers within the private sector, with no exceptions, as all of them benefit from the TFR;
- this plan can generate substantial funding for the private pension system. TFR stock has been estimated at 130 billion Euro, while the annual flow of contributions is close to 15 billion Euro (1.3 % of GDP);
- it has no significant repercussions on the public budget, as TFR already enjoys a tax-privileged treatment of the EET kind (exemption of contributions, exemption of accumulation, taxation of benefits). As the replacement of TFR should supply the main source of funding for the second pillar, tax incentives to employer and employee contributions to the new private pension scheme could not be of a particularly generous nature: such benefits will be enjoyed in proportion to TFR substitution.

The path to reform was not an easy one, owing to the emergence of strong opposition to the abandonment of the TFR scheme. New funded, voluntary pension schemes did not take-off, and the main reason for their unsuccessful beginning was the insufficient level of tax incentives.

With the major pension reform of 1995, which, maintaining a PAYG system, radically changed the retributive system into one characterised by a strict tie between pension benefits and contributions, tax incentives to voluntarily-funded schemes were widened. The tax frame which emerged from this reform does not really correspond to any rational design: it appears a hybrid system, where the tax benefit depends on the source of contributions (employer, employee, TFR), on the investment policies of the managing fund, and on the form of benefit (lump sum or annuities). No individual saving accounts other than life insurance policies were permitted, and these maintained their previous tax-favoured regulation. The end effect was that the 1995 reform also failed to encourage private pension schemes, while demand for the more generous tax treatment of pension savings remains strong.

²Self employed replacement rate between pension benefit and last wage is lower (50% or less for younger workers). In

In the year 2000, at the end of a complex and radical reform of the whole tax system, fiscal regulation of privately-funded pension schemes was radically revised and rationalized. The cornerstone of the new system was the introduction of a *single* tax regime covering *all* forms of pension saving: open and closed pension funds, TFR, individual life insurance governed by the same constraints as other pension savings, individual pension plans also open to subscribers other than employees, the self-employed and individual entrepreneurs. The tax law establishes the maximum amount of fiscal favour that can be granted to the beneficiary, who can opt for one of a number of different pension savings schemes.

The new system is not biased towards or against TFR or any other voluntary pension schemes. In order to enjoy the tax benefit a number of constraints must be met:

- a) a minimum contribution period (15 years);
- b) pension benefits can only be enjoyed at retirement age;
- c) only one third of accumulated savings can be withdrawn in the form of capital upon retirement.

The new, single tax regime has been designed along ETT lines.

1) Contributions are tax-deductible from the personal tax base within much higher ceilings than before: 12% of the wage with an absolute ceiling of 5,164 Euro. Once again the deduction is partially conditional upon the use of TFR as a source of finance for the funded pension scheme.

2) Capital income and capital gains matured during *the accumulation phase* are taxed according to the special tax regime reserved for capital income, at a constant tax rate which is slightly lower (11%) than that applied to mutual funds (12.5%).

3) To prevent double taxation, the tax base of benefits excludes financial income that has already been taxed during the accumulation phase. In the case of annuities, moreover, the tax base is divided into two parts: interest matured on capitalized contributions during *the pension period*, taxed at a proportional rate of 12,5%, and a second part taxed on the basis of the marginal personal income rate. If the benefits are drawn as a lump sum payment, the tax rate applied is the average tax rate of personal income tax for the previous 5 years.

Compared to the taxation of other forms of saving, the agreed tax incentive consists in the deferred taxation of contributions and in the softer taxation of those returns accrued during the accumulation phase.

The tax incentives provided by the 2000 reform are, on the whole, more generous than those of the preceding tax regime. Nevertheless, the majority of financial observers considered the tax

favour to be still insufficient. A tax bill has been presented for approval by Parliament, designed to widen the threshold for the deduction of contributions from the personal income tax base, and thus aimed at moving towards a scheme of the EET kind.

2.2. Tax incentives in the Italian ETT scheme

Are present tax incentives strong enough? Will the proposals to strengthen them produce the desired effect on the evolution of pension funds? These are the main questions that remain open in the current debate.

An evaluation of the entity of tax incentives can be made if we compare it with alternative regimes. A clear, initial benchmark for Italy is the tax treatment of other forms of non-pension savings. Such tax treatment tends to be rather homogeneous, and is based on the principle of the taxation of all capital income and *matured* capital gains. There are two tax rates: 12,5 and 27%: the first is applied to the majority of medium and long-term investment assets (state bonds, private securities, etc.); the second is applied to short-term bonds and bank deposits. In this paper, we are going to focus on a mutual fund taxed at the 12,5% rate.

Table 1 shows the results of the simulation of the tax burden under the Italian tax system. The standard case considers an individual who works for 36 years and then retires for a further 26, in an inflation-free world. He invests a fraction of his salary, which grows at annual rate of 2%, in a pension scheme providing a gross rate of return of 2.5%. On retirement, his accumulated savings can be enjoyed in the form of a constant annuity, and as a lump sum payment (of a maximum of 1/3 of the total). As indicators of the tax burden, we compute the Internal Rate of Return (IRR) from different investment plans and the Tax Wedge, i.e. the percentage deviation of the taxed investment IRR from the corresponding tax-free IRR.

The IRRs of the Italian ETT system are then compared with alternative solutions. The first comparison (second column in the tables) is with a collective mutual fund (like UIC; the second comparison (third row of the table) is with a tax regime designed along EET lines.

The table also shows the results of some sensibility exercises involving changes in the rate of return, in the initial wage and in the allocation of working/retiring time. The set of simulations shown in Table 1a refers to the case of no lump payment, while those in Table 1b refer to the case of a lump sum payment of 1/3 of the accumulated savings at retirement.

The results show that, for a given amount of savings from pre-tax current income, the IRR of the new saving plans is much higher than the IRR of the mutual fund.

A much discussed feature of the current tax treatment of pension schemes is taxation during the accumulation phase. This is the most important departure from the EET schemes adopted in the UK, the US and in most European countries. It may be interesting then to assess whether the Italian tax system is more burdensome than the EET model. The answer is not any easy or unimportant one. Compared with EET schemes, the Italian ETT regime taxes capital income:

a) at accrual, as in the case of all other non-pension savings investments, without tax deferral (a disadvantage for the taxpayer);

b) at the same preferential tax rate, in keeping with the other substitutive tax regimes adopted for capital income, instead of the usually higher marginal tax rate of the personal income tax under the EET regime³ (an advantage for the taxpayer).

IRRs under the Italian ETT and the EET regimes are usually very similar (see table 1). The Italian ETT is generally more advantageous in cases of longer working lives and capitalisation periods.

The employee's advantage obviously grows with his/her marginal tax rate, due to the growing distance between this rate and the lower one applied to capital income.

Thus to sum up, forwarding taxation during the accumulation phase does not have any serious disadvantages. In any case, the tax wedge does not seem too large.

On the basis of our calculations, the demand for higher tax incentives for pension funds does not appear to be particularly well-grounded.

In order to provide a critical assessment of the need for an increase in the tax incentives to pension savings, other aspects need to be taken into account as we mentioned in the first part of this paper.

1. Owing to the lack of data in Italy, there is no empirical evidence of the impact of taxation on pension fund investment choices. The sole empirical study of this subject in existence (Jappelli, Pistaferri, 2001) only considers life insurance policies. It shows however that the reduction in the

³ We refer to standard EET regimes. Of course one could imagine an EET scheme where the capital income component of benefits is taxed at a low tax rate.

fiscal privileges granted for these investments, which mainly harmed the richer taxpayers at the beginning of the '90s, had no significant effects on the demand for this form of saving⁴.

2. An analysis of the characteristics of subscribers to an Italian pension fund scheme shows the low participation of young people at the end of 2000. Only 10.3% of them were younger than 30. This percentage rises to 11.5% in the case of open funds (Covip, 2001). This may indicate the existence of more binding liquidity constraints for young people and of insufficient financial experience.

3. No figures are available for subscribers sub-divided according to income levels. On the basis of our simple simulations, we may argue, however, that the raising of the tax wedge was less severe in the tax-favoured pension regimes (from 40.6 to 61.0 in the EET case, and from 38 to 50.4 in the Italian ETT) than for the non-tax-favoured mutual fund cases (from 68,6 to 99,7). The relative advantage enjoyed by high-income subscribers is mainly due to the deduction of contributions against a higher marginal tax rate. The tax advantage is particularly high for the Italian ETT compared with the EET, thanks to the higher spread between the marginal personal income tax rate and the proportional rate applied to financial income.

An increase in the tax favour granted to pension savings could in the end subsidise those who already save, rather than new pension savers. This effect may be further enhanced by the recent government proposal whereby the improvement in the incentive takes the form of an upgrading of the ceiling on tax deductibility of contributions.

2.3. An alternative view

The data we have presented and analysed here suggest that the development of the second pillar of the Italian pension system is not being hindered by insufficient tax benefits and so an alternative diagnosis and therapy is thus required. More effort must be made if we are to fully understand the reasons behind the hesitation of workers and employers to replace TFR with pension funds. Only after such an investigation has been completed can we then assess whether there are non-tax incentives which are more effective than the taxed ones.

Firstly, it could be said that no specific measures have been devised to encourage workers to replace TFR with a pension fund. The original idea was that the potential higher returns from the pension fund would have been sufficient to induce abandonment of TFR. However, this

⁴ One of the more relevant reasons of this result is that, notwithstanding the tax changes, this saving form enjoyed of higher tax advantages than other ones.

presupposes that TFR and pension funds are perfectly substitutable, and this does not appear to be the case. As opposed to pension funds, the TFR:

a) operates as an insurance policy against unemployment, which is particularly important when unemployment benefits are lacking or are inadequate as in the case of small firms;

b) constitutes a form of precautionary saving. Advances of accumulated savings can be easily withdrawn in cases of important household financial decisions (buying a house, severe or prolonged health problems, a wedding, etc.). This is particularly relevant with imperfect capital markets financing personal credit;

c) provides for freely disposable capital at retirement, which in the case of a standard working life can be of the order of three years salary.

To sum up then, TFR is a form of saving that is subject to fewer constraints than pension savings. The reluctance to abandon it is thus in keeping with what we illustrated in the first part of the paper: tax incentives or the expectation of higher returns are not, per se, a sufficient reason to replace TFR with pension funds. Strengthening tax incentives may produce poor results compared with, and/or in absence of, reforms of other aspects of the welfare system, especially the improvement of unemployment insurance.

From the company point of view, the voluntary abandonment of TFR represents the loss of a secure and cheap source of finance. In order to try and encourage companies to divert TFR into pension funds, two further steps have been taken.

a) Tax rebates have been introduced in order to compensate for the potentially higher cost of market financing. The 1995 reform provided for the creation of a tax-free book reserve of 3% of TFR allocated to pension funds. This measure was, however, not enough to compensate for the cost of raising funds on the market. On the other hand, a stronger incentive would have meant enormous costs for the public budget.

b) Firms were offered other financial sources as an alternative to TFR, provided they would pledge to strengthen their financial structure. This was the aim of the securitisation of TFR introduced in 1999. Listed firms, firms applying for listing or firms that accept qualified financial operators as shareholders (selling them at least 10% of their capital) can transform TFR contributions into bonds and other securities, and confer them to pension funds. The proposed mechanism was not a success however, and only managed to attract a limited group of firms.

An alternative solution has been proposed by the current centre-right government (in office from the second half of 2001), consisting in a compulsory transfer of TFR to pension funds, to be

compensated by tax and contribution rebates to the firms. This proposal does not provide any compensation for the employees under the usual, albeit as yet unproven, assumption that the higher returns from funds is sufficient to ease the substitution. Moreover, the use of compulsion contradicts the main underlying principle of tax incentives, i.e. the encouragement of a *voluntary* choice in favour of pension saving. It is not at all clear what will come of this proposal. Many revisions and exceptions to its compulsory character have been already advanced. The abandonment of TFR appears to be a never-ending story.

3. What lessons can be learnt from the Italian experience?

The difficulties met by Italy in trying to transform its severance pay program into DC pension schemes offer some interesting lessons for other countries, like Japan, who are engaged in a redesign of their private pension system. In Japan, just like in Italy, the radical reform introduced in 2001 promoted new pension plans, both DB and, for the first time, DC pension plans.

This promotion has been probably influenced by the successful USA experience. But the Italian experience tells a very different story. It is interesting to briefly compare the differences between the Italian experience and that of the USA “stampede” from DB pension plans towards DC ones, which in the last 20 years has radically re-shaped the private pension system in the USA. The main aspects have been well summarised by Pension and Welfare Benefits Administration (1999). In 1975, 70.8% of the 38.431 million actively involved in pension plans were subscribers to DB schemes, while the rest subscribed to DC plans. In 1985 this percentage dropped to 46.61%, and had fallen further to 35.57% by 1995. Participants in DC plans grew from 11.217 million in 1975 to 33.244 million in 1985, and to 42.662 million in 1995. The percentage of pension assets invested by DB plans dropped from 71.5% of the total in 1975 to about 50% in 1995.

The reasons for this revolution have been widely analysed in the literature. An important role is deemed to have been played by the evolution of regulation, including tax treatment. Regulation of the “terminations for reversions” had, for instance, the effect of encouraging many firms with over-funded DB schemes to divest (Ippolito 2001). The chance employees were given to subscribe to the new pension plans from pre-tax income played an important role here. However, the success of the DCs can be mainly accounted for by the fact that the shift from DB to DC (or to new hybrid plans, the so-called “cash balance pensions”) involved a convergence of employers’ and employees’ interests. Part of the change reflects the shift of employment away from large, strongly-

unionised firms in the manufacturing sector, traditionally engaged in DB plans, to smaller non-unionised firms in the service sector who usually could not afford the too severely regulated DB.

Other major changes in the employment market leading to greater labour mobility, increased interest in pensions plans like DC, which grant portability upon vesting. These changes have led to changes in human resources management, reducing the role played by DB with back-loaded benefits in keeping highly-skilled workers in companies. Workers appreciate the fact that benefits are more transparent under DC plans, and that the benefits are paid as a lump sum. Employers, on the other hand, do not have to bear the risk of market fluctuations.

The effectiveness of tax incentives granted to employee contributions is enhanced by the fact that employers may match employee contributions up to a specific threshold. They have a clear interest in doing so: the share of DC schemes that may be held in company stock is much higher than that allowed in the case of DB plans.

The Italian experience, on the contrary, illustrates the difficulty of shifting from one pension system to another possibly more desirable one, at least from the point of view of financial market institutions, when the relative advantages enjoyed by employers and employees are neither clearly defined nor politically agreed upon.

The lessons that countries like Japan can draw from the Italian and USA experiences are nonetheless similar: a successful reform strongly depends on a reasonable settlement of the interests of both employers and employees in an evolutionary institutional context.

It is likely that in Japan, as in the USA, DC pension schemes are going to appear attractive to those people working for small companies, or to those who frequently change jobs. At the same time, they may be of interest to those companies firms who, due to the low rate of return achieved in recent years, face problems in the management of their DB plans.

However, it is also likely that the shift will encounter obstacles in the form of the widespread under-funding of present DBs. The difficulty of sharing the losses resulting from an eventual termination of these plans could significantly hinder the reform. Further problems could rise if the ending of existing severance pay should become part of the current political agenda.

In this context, the introduction of adequate tax incentives should be carefully considered: as the USA experience suggests, given the characteristics of the new DC plans, the deductibility of employee contributions can be effective.

One should not, however, forget that incentives constitute a cost for the public budget: in Canada and the UK, pensions are the largest item of tax expenditure; in the USA, they are the

second only to health insurance. Such tax expenditure is also of considerable entity compared with direct public spending. In the United Kingdom, for example, the total reported in the tax expenditure accounts for 1996-97 was over £10bn, compared with £30bn spent on state pensions (Cook etc.) Costly incentives that disproportionately benefit higher earners may not be, as the Italian case shows, the most effective way to reach the assigned policy goals.

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Tab. 1a - Internal Rate of Return on Pension saving under alternative tax hypotheses (lump sum capital=0)						
		Tax rates on:	Italian ETT	Mutual Fund	EET	No tax
		Contributions	0.000	0.320	0.000	0
		Capital income in accumulation period	0.110	0.125	0.000	0
		Lump sum capital at retirement	0.256	0.000	0.256	0
		Pension components:				
		- Interests in retirement period	0.125	0.125	0.320	0
		- Original contributions	0.320	0.000	0.320	0
		- capital income in accumulation period	0.000	0.000	0.320	0
Parameters:		Base	Italian ETT	Mutual Fund	EET	No tax
Working period	32	Gross Initial Earning	35000	35000	35000	35000
Pension period	26	Lump sum capital at retirement	0	0	0	0
Growth rate of earnings	2.0%	Net Pension Benefit	3637	2951	3573	4717
Contribution rate	4.0%					
Gross rate of interest	2.5%					
Lump sum capital at retirement	0.0%	Internal Rate of Return	1.550%	0.784%	1.484%	2.500%
(% of cumulated net benefits)		Tax wedge (% of gross rate)	38.0	68.6	40.6	0.0
Parameters:		Lower rate of return	Italian ETT	Mutual Fund	EET	No tax
Working period	32	Gross Initial Earning	35000	35000	35000	35000
Pension period	26	Lump sum capital at retirement	0	0	0	0
Growth rate of earnings	2.0%	Net Pension Benefit	2284	2058	2253	3130
Contribution rate	4.0%					
Gross rate of interest	1.0%					
Lump sum capital at retirement	0.0%	Internal Rate of Return	-0.153%	-0.535%	-0.203%	1.000%
(% of cumulated net benefits)		Tax wedge (% of gross rate)	115.3	153.5	120.3	0.0
Parameters:		Higher Initial Earning	Italian ETT	Mutual Fund	EET	No tax
Working period	32	Gross Initial Earning	140000	140000	140000	140000
Pension period	26	Lump sum capital at retirement	0	0	0	0
Growth rate of earnings	2.0%	Net Pension Benefit	13366	9546	12432	18866
Contribution rate	4.0%					
Gross rate of interest	2.5%					
Lump sum capital at retirement	0.0%	Internal Rate of Return	1.239%	0.008%	0.975%	2.500%
(% of cumulated net benefits)		Tax wedge (% of gross rate)	50.4	99.7	61.0	0.0
Parameters:		Longer Contribution Period	Italian ETT	Mutual Fund	EET	No tax
Working period	40	Gross Initial Earning	35000	35000	35000	35000
Pension period	18	Lump sum capital at retirement	0	0	0	0
Growth rate of earnings	2.0%	Net Pension Benefit	7174	5800	7258	9306
Contribution rate	4.0%					
Gross rate of interest	2.5%					
Lump sum capital at retirement	0.0%	Internal Rate of Return	1.569%	0.790%	1.611%	2.500%
(% of cumulated net benefits)		Tax wedge (% of gross rate)	37.3	68.4	35.6	0.0
Parameters:		Shorter Contribution and Retirement Period	Italian ETT	Mutual Fund	EET	No tax
Working period	20	Gross Initial Earning	35000	35000	35000	35000
Pension period	18	Lump sum capital at retirement	0	0	0	0
Growth rate of earnings	2.0%	Net Pension Benefit	2241	1916	2199	2978
Contribution rate	4.0%					
Gross rate of interest	2.5%					
Lump sum capital at retirement	0.0%	Internal Rate of Return	0.931%	0.075%	0.829%	2.500%
(% of cumulated net benefits)		Tax wedge (% of gross rate)	62.8	97.0	66.8	0.0

Tab. 1b - Internal Rate of Return on Pension saving under alternative tax hypotheses (lump sum capital=1/3)

			Tax rates on:			
			Italian ETT	Invest.Fund	EET	No tax
Contributions			0.000	0.320	0.000	0
Capital income in accumulation period			0.110	0.125	0.000	0
Lump sum capital at retirement			0.256	0.000	0.256	0
Pension components:						
- Interests in retirement period			0.125	0.125	0.320	0
- Original contributions			0.320	0.000	0.320	0
- capital income in accumulation period			0.000	0.000	0.320	0
Parameters:			Base			
			Italian ETT	Invest.Fund	EET	No tax
Working period	32	Gross Initial Earning	35000	35000	35000	35000
Pension period	26	Lump sum capital at retirement	23676	19531	25010	30233
Growth rate of earnings	2.0%	Net Pension Benefit	2437	1977	2394	3160
Contribution rate	4.0%					
Gross rate of interest	2.5%					
Lump sum capital at retirement	33.3%	Internal Rate of Return	1.428%	0.570%	1.449%	2.500%
(% of cumulated net benefits)		Tax wedge (% of gross rate)	42.9	77.2	42.0	0.0
Parameters:			Lower rate of return			
			Italian ETT	Invest.Fund	EET	No tax
Working period	32	Gross Initial Earning	35000	35000	35000	35000
Pension period	26	Lump sum capital at retirement	18155	15860	18556	23779
Growth rate of earnings	2.0%	Net Pension Benefit	1530	1379	1510	2097
Contribution rate	4.0%					
Gross rate of interest	1.0%					
Lump sum capital at retirement	33.3%	Internal Rate of Return	-0.284%	-0.766%	-0.295%	1.000%
(% of cumulated net benefits)		Tax wedge (% of gross rate)	128.4	176.6	129.5	0.0
Parameters:			Higher Initial Earning			
			Italian ETT	Invest.Fund	EET	No tax
Working period	32	Gross Initial Earning	140000	140000	140000	140000
Pension period	26	Lump sum capital at retirement	84225	63189	89563	120932
Growth rate of earnings	2.0%	Net Pension Benefit	8955	6396	8330	12640
Contribution rate	4.0%					
Gross rate of interest	2.5%					
Lump sum capital at retirement	33.0%	Internal Rate of Return	1.031%	-0.319%	0.897%	2.500%
(% of cumulated net benefits)		Tax wedge (% of gross rate)	58.7	112.8	64.1	0.0
Parameters:			Longer Contribution Period			
			Italian ETT	Invest.Fund	EET	NO tax
Working period	40	Gross Initial Earning	35000	35000	35000	35000
Pension period	18	Lump sum capital at retirement	35022	28818	37497	45179
Growth rate of earnings	2.0%	Net Pension Benefit	4807	3886	4863	6235
Contribution rate	4.0%					
Gross rate of interest	2.5%					
Lump sum capital at retirement	33.0%	Internal Rate of Return	1.482%	0.643%	1.602%	2.500%
(% of cumulated net benefits)		Tax wedge (% of gross rate)	40.7	74.3	35.9	0.0
Parameters:			Shorter Contribution and Retirement Period			
			Italian ETT	Invest.Fund	EET	No tax
Working period	20	Gross Initial Earning	35000	35000	35000	35000
Pension period	18	Lump sum capital at retirement	11588	9519	11995	14459
Growth rate of earnings	2.0%	Net Pension Benefit	1501	1284	1474	1995
Contribution rate	4.0%					
Gross rate of interest	2.5%					
Lump sum capital at retirement	33.0%	Internal Rate of Return	0.806%	-0.263%	0.795%	2.500%
(% of cumulated net benefits)		Tax wedge (% of gross rate)	67.8	110.5	68.2	0.0