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The Italian Public Pension System: Current Prospects and Reform Options

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Abstract

Public pension expenditure in Italy has been growing rapidly in the last three decades and is now among the highest in industrialized countries. Despite recent reforms, benefits remain generous by international standards and, unless additional measures are taken, the financial situation of the system will deteriorate in the long term. The paper reviews the current system, its history, and its prospects, and examines through simulations the long-run effects of alternative pension reform options.

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Summary

Public pension expenditure in Italy grew from about 5 percent of GDP in the early 1960s to over 15 percent in the early 1990s, outpacing all other categories of primary government expenditure and making Italy one of the biggest spenders on pensions among industrialized countries. In the future, the adverse demographic dynamics are expected to increase the pressures on the pension system. Against this background, a reform of the pension system was undertaken in 1992, aimed at stabilizing the share of pension spending in GDP and at reducing the distortions and inequities of the system. This reform was insufficient to restore the system to equilibrium, and further reforms are currently being prepared on the basis of an agreement reached between the Italian government and the trade unions in November 1994.

The paper reviews the current state of, and outlook for, the Italian public pension system, focusing primarily on its financial aspects. A pension system has, of course, other important implications, notably for the labor market, savings, and income distribution; these, however, lie outside the scope of this study. In view of the impending pension reform in Italy and the current public debate on this topic, the paper also simulates the quantitative effects of four possible reform options: lowering the accrual rate; raising the retirement age for women; introducing an early retirement penalty; and reducing survivors' benefits. These options do not exhaust the menu of possible reforms, but any package intended to restore the long-term equilibrium of the system would have to include at least some of them.

One thing that the simulations underscore is that there is no quick fix: in all cases, the effects of the measures on pension spending would be relatively limited in the next three to five years, and in some cases it would be negligible. However, some of the measures would generate substantial savings in the long term. The paper therefore suggests that the ideal package would contain a mix of some measures with immediate impact and some with a growing effect over time.

1. Introduction

Public pension expenditure in Italy grew from about 5 percent of GDP in the early 1960s to over 15 percent in the early 1990s. This growth was particularly pronounced in the 1980s, outpacing all other categories of primary government expenditure, and making Italy one of the biggest spenders on pensions: by 1991, spending on pensions in Italy was two-thirds higher than the EU average (Chart 1). Looking ahead, the prospects are worrying: the adverse demographic dynamics are expected to increase the pressures on the pension system. On unchanged policies, pension spending is likely to go on increasing; according to some estimates, it could even reach over 20 percent of GDP by the middle of the next century. ^{1/}

Against this background, a reform of the pension system was undertaken in 1992, aimed at stabilizing the share of pension spending in GDP and at reducing the distortions and inequities of the system. This reform was insufficient to restore the system to equilibrium, and in 1994 the government proposed in its draft 1995 budget a set of additional systemic measures. In the face of trade union reaction, these measures were withdrawn from the budget but--with the agreement of the social partners--a new comprehensive pension reform is to be prepared and implemented in the course of 1995.

This paper reviews the current state and outlook for the Italian public pension system, focussing primarily on its financial aspects. A pension system has, of course, other important implications, notably for the labor market, savings, and income distribution; these, however, lie outside the scope of this study. In view of the impending pension reform in Italy and the current public debate on this topic, the paper also identifies and evaluates different reform options. The options examined here do not exhaust the menu of possible reforms; but any package intended to restore the long-term equilibrium of the system would have to include at least some of them.

Part 2 of the paper describes the Italian public pension system today: it reviews the origins and evolution of the system, as well as the current institutional setup (types of benefits and providers) and the provisions regulating benefits as they stand today. Part 3 presents the main themes dominating the current debate on pension reform. First, it compares the generosity of the Italian pension system to those of other industrialized countries. Second, it discusses the distinction between social security (*previdenza*) and welfare (*assistenza*)--a key issue in the public debate--and its financial ramifications for INPS, the main pension provider in Italy. Third, it examines the long-term sustainability of the system on the basis of a number of different indicators. Finally, it explores the effects of different reform options on the finances of the system now and in the future. Part 4 of the paper summarizes the main conclusions.

^{1/} Reported in The Economist, August 13, 1994.

2. The Italian pension system today

Before presenting the case for pension reform, it is necessary to map the territory: the history, the institutions, the terminology, the benefits provided by the Italian pension system, and the current state of the debate on its reform. This is the purpose of this part of the paper.

a. The evolution of the system

The evolution of the Italian pension system has been similar to those of other continental European countries. 1/ The first pension plans were established for public employees in the second half of the nineteenth century, and the first scheme for private sector employees in 1898. This scheme (initially voluntary, then made compulsory in 1919) was fully funded; it was financed by a payroll tax and provided old age and disability benefits based on contributions.

The high post-war inflation meant that fully funded schemes could no longer provide an acceptable level of benefits based on contributions. Thus Italy started moving gradually towards a pay-as-you-go system, in a process that culminated in the reform of 1952. Although benefits continued in principle to be linked via a formula to contributions, they were adjusted to the cost of living and guaranteed minimum pension levels were introduced.

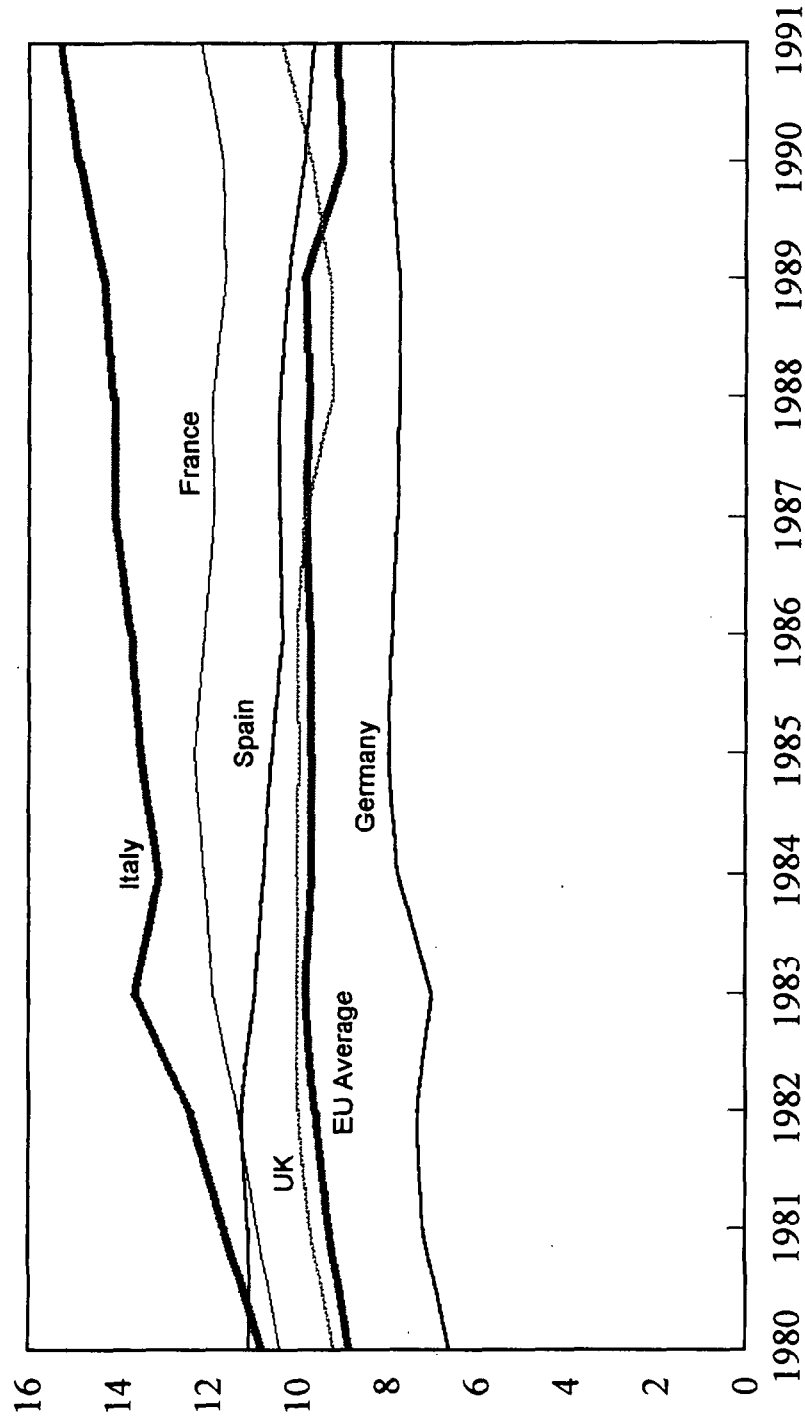
The system was fundamentally changed again in the 1960s, moving further away from its original design and expanding to cover welfare benefits: the determination of benefits shifted from a contribution-based formula to an earnings-based one, and pensions were awarded to elderly people with low income (*pensioni sociali*). Also during that decade, coverage was expanded to the self-employed and seniority pensions were introduced. 2/ Finally, the system became excessively fragmented, with different provisions applying to different sectors. These changes meant that the pension system could be used (as indeed it was) for social policy purposes, providing income support to agriculture and to the South. In addition, there is evidence of abuse of parts of the system (notably the disability pensions) to cultivate political patronage (Ferrera 1984). As a result, the share of pension expenditure in GDP more than doubled during the 1960s and 1970s (from 5 percent of GDP in 1960 to over 10 percent by 1980).

The first steps to contain this increase were not taken until the 1980s, when means-testing was introduced for disability pensions and efforts

1/ For a detailed discussion, see Franco & Frasca (1992).

2/ Seniority pensions is an institution particular to Italy. They are pensions paid to people who retire before the legal minimum retirement age, but have completed a certain number of years of contribution. They are different from the usual early retirement schemes that exist in many countries (including Italy), because they are not reduced in any way, but are fully equivalent to an old age pension.

Chart 1
Italy
Public Pension Expenditure for the Aged
(In percent of GDP)



Source: OECD (1994).

were made to tighten eligibility rules and administrative controls. At the same time, however, the ceiling on pensionable earnings was abolished; differentiation between public and private sector workers was increased; and in 1990, benefits were raised for the self-employed, farmers, and artisans. Thus, the rise in pension spending accelerated and the distortions caused by the system were aggravated. As a result, growth in pension spending has been among the major factors behind the growth in total government spending in Italy during the 1970s and 1980s (Franco 1993b).

Already since the mid-1980s it was evident that the system was on an unsustainable path, and that bold steps were needed to reduce and rationalize benefits and eliminate distortions. Franco (1993a) offers a brief history of the various reform proposals floated in the 1980s, noting that they were strikingly similar to each other (Table 1). Indeed, the main areas where intervention was needed were clear since the report of the Castellino Commission in 1981: raising the pensionable age; lengthening the reference period for the determination of assessed income (the basis on which the level of the pension is calculated); reducing the diversity of treatment between different categories of workers, and particularly between those in the public and the private sector; and increasing the minimum contribution period for a seniority pension. Despite this, however, all these initiatives were abandoned before even being submitted to Parliament. Aside from the obvious political difficulties in introducing reforms that curtail the benefits of a substantial part of the population, this probably also reflected the particular role that the Italian pension system had assumed over the years as a vehicle for social policy and political consensus-building.

The system was eventually reformed in 1992. The goals of the 1992 reform were to reduce the heterogeneity of the Italian pension system, and to stabilize the share of pension expenditures in GDP in the long run. The major changes in the determination of benefits are presented in Table 2. In addition, the indexation of pensions to both prices and the minimum contractual wage in industry was abolished, and pension benefits were only indexed to prices. Because the reductions in benefits were judged to be quite drastic, they were phased in gradually. But because these transitional arrangements limited the immediate financial effects of the changes, certain emergency measures were also taken in order to curb pension expenditure in the short run (freezing of seniority pensions until December 31, 1993, and cancellation of the 1992 indexation payment due to pensioners). Finally, in order to compensate for the lower benefits of the public pension system, the reform gave incentives for the voluntary participation into private pension schemes. Fully funded voluntary schemes can now be created for dependent workers or the self-employed in both the private and public sectors, using as their main source of financing the

severance benefit accounts (TFR accounts). ^{1/} Thus far, no private funds have been set up.

Was the 1992 reform successful? As regards making the system more homogeneous, the reform went quite far. Retirement age limits and the period of time taken into account for determining the assessed income are now quite harmonized between the public and private pension systems. Still, the accrual factors (the coefficients that link the years of contribution to the pension) and the level of assessed income are still different in the private and the public sector, favoring employees of the latter. On the other hand, as regards restoring the financial health of the pension system, the 1992 reform was less successful (INPS 1993; Franco 1993a). Indeed, soon after the reform was finished it became clear that additional corrective measures would be needed before long.

In 1994, the government included in its draft 1995 budget a number of measures that would curtail pension benefits further, notably by reducing seniority pensions, lowering the accrual rate, accelerating the transitional arrangements of the 1992 reform, and indexing pensions to targeted, rather than actual, inflation. In the face of strong union reaction, the government withdrew these provisions from the draft budget (except the acceleration of the transitional arrangements of the 1992 reform) and in November 1994 reached an agreement with the social partners to design a comprehensive pension reform during 1995. The agreement sets out the principles that would guide the reform: balancing the finances of the pension funds in the long term on the basis of sustainable contribution rates; completing the harmonization of the provisions of the different pension funds; reviewing invalidity pensions and survivors' pensions, as well as the guaranteed minimum pension level; and establishing a link between the residual life expectancy at the time of retirement and the level of benefits.

b. The current institutional setup

The Italian public pension system today covers self-employed and dependent workers in both the government and the nongovernment sectors. The system is characterized by a multiplicity of benefits and funds

^{1/} Severance benefits in Italy are financed by employers' contributions equivalent to 7.4 percent of gross wage, which are deposited in an account managed by the employer. These funds are to be disbursed to the worker upon separation. Resources allocated to TFR accounts are large: in 1990, the flow amounted to Lit 24 trillion in the private sector alone. These accounts are a very advantageous form of financing for firms, because they are inexpensive and their use is discretionary (they can even be used in the firm's own business activities). For this reason, in order to allow a gradual adjustment of firms to the new system, existing balances in the TFR accounts cannot be used for the voluntary pension funds. For a detailed discussion of voluntary pension funds see CER (1993).

administering them, often overlapping. It is possible (and indeed occurs frequently) that the same individual receive two or more kinds of pension benefits from different institutions.

Benefits provided by the Italian public pension system fall generally into four categories. The most important is the one that groups together the so-called IVS pensions (*pensioni di invalidita', di vecchiaia e anzianita', ed ai superstiti*). There are four different kinds of benefits in this category: old age (*vecchiaia*) pensions; seniority (*anzianita'*) pensions (i.e., pensions paid irrespective of age to those with a certain number of years of contribution); disability (*invalidita'*) pensions; and survivors' pensions, paid to surviving relatives (*superstiti*) of the contributor. Eligibility for an IVS pension does not preclude eligibility for any other kind of pension. Second, there are compensatory pensions (*pensioni indennitarie*), which are paid to compensate people in case of disease or infirmity suffered while working or as a consequence of war injuries. Third, there are support pensions (*pensioni assistenziali*), paid to people who are either blind, deaf, or otherwise disabled, or older than 65 years, and do not have enough means of subsistence; these pensions are not related to contributions. Finally, merit pensions (*pensioni di benemerenza*) are paid to those who distinguished themselves during wars.

IVS pensions constitute approximately 80 percent of all pensions paid by the system, and they account for almost 90 percent of the total amount of pension expenditure (Chart 2). Within the IVS category, old age and seniority pensions--which are the main focus of this paper--account for more than half of the total pension expenditure (Chart 3).

IVS pensions in the government sector are paid by a number of separate funds to different categories of employees. 1/ The most important among them are the funds for the employees of the central government; local administrations; the health system; teachers in nursery schools; and the judiciary. 2/ All these funds have historically been under the Ministry of the Treasury. In 1994, however, they--as well as a number of other small government sector funds--were taken over by a newly-created agency, INPDAP (*Istituto Nazionale di Previdenza per i Dipendenti dell'Amministrazione Pubblica*), with the exception of the fund for employees of the central administration, which is to remain directly under the Ministry of the Treasury. INPDAP is to manage these funds under the joint supervision of the Ministries of Labor and Social Security, and Treasury.

In the nongovernment sector (defined as the private sector plus entities of the wider public sector outside the government), INPS is by far the largest provider of IVS pension benefits. As in the government sector,

1/ Giarda & Morcaldo (1991) offer a brief description of the pension system for government employees.

2/ The pensions of employees of the Italian railways and the Post Office are administered separately.

there is a number of different funds within INPS. The most important is the fund for dependent workers (FPLD--*Fondo Pensioni Lavoratori Dipendenti*). There are also three separate funds for self-employed (farmers, artisans, and traders), as well as a number of smaller special funds (*fondi speciali*) covering specific categories of employees. 1/

In addition to these three main groups of funds (administered by the Treasury and INPDAP in the government sector and by INPS in the non-government sector), there have historically been many separate funds administering IVS pension benefits for specific categories of employees or professionals, such as employees of state-owned banks, maritime employees, lawyers, accountants, business managers, doctors, engineers, architects, journalists, etc. 2/ Recently, there has been a move towards consolidation. The funds for state-owned banks have been absorbed by INPS; the same law that established INPDAP created IPSEMA (*Istituto di Previdenza per il Settore Marittimo*), merging three different maritime funds; and most of the other funds are supposed to be privatized starting in 1995.

Aside from IVS pensions, a separate entity, INAIL (*Istituto Nazionale per l'Assicurazione contro gli Infortuni sul Lavoro*) manages compensatory pensions for accidents at work for workers in both the private and the public sector. Support pensions are paid by the Ministry of the Interior and INPS: the Ministry of the Interior pays both pensions and family allowances to the eligible persons until they reach retirement age; afterwards, INPS pays the pensions, while the Ministry of the Interior keeps paying the family allowances. Finally, the Ministry of the Treasury administers pensions to disabled ex-servicemen and merit pensions for distinguished service during wars. 3/

Chart 4 presents in a schematic way the coverage and administration of IVS pensions which, as mentioned above, represent almost 90 percent of the total public spending on pensions. As regards the relative weight of different entities, as Table 3 and Chart 5 show, INPS is by far the biggest provider in the Italian public pension system, paying over 70 percent of all

1/ The main special funds are those for employees in the public transport sector (*Fondo di previdenza per il personale addetto ai pubblici servizi di trasporto*), in telecommunications (*Fondo di previdenza per il personale addetto ai pubblici servizi di telefonia*), in the electricity industry (*Fondo di previdenza per i dipendenti dell'ENEL e delle aziende elettriche private*), and in air transport (*Fondo di previdenza per il personale di volo dipendente da aziende di navigazione aerea*).

2/ The most important are those for industrial managers (INPDAL--*Istituto nazionale di previdenza per i dirigenti di aziende industriali*); journalists (INPGI--*Istituto nazionale di previdenza dei giornalisti italiani "Giovanni Amendola"*); and people working in entertainment (ENPALS--*Ente nazionale di previdenza ed assistenza per i lavoratori dello spettacolo*).

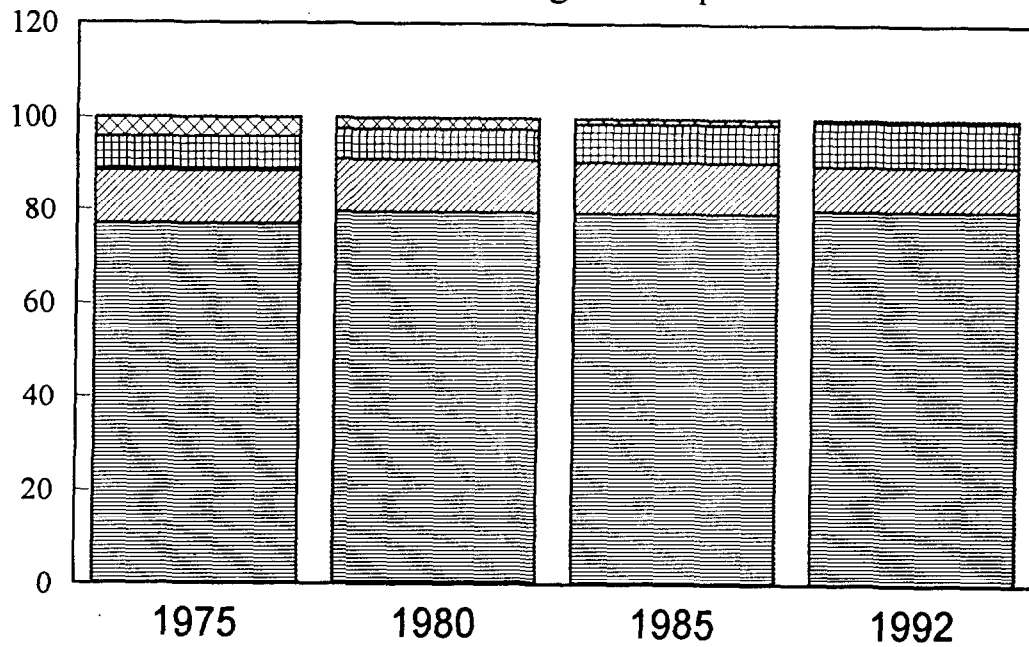
3/ In 1992, there were about 75,000 of these pensions, accounting for about 0.3 percent of all pensions.

Chart 2

Italy

Composition of Public Pensions (In percent)

Share of different categories of pensions



Shares of the expenditure on different categories of pensions

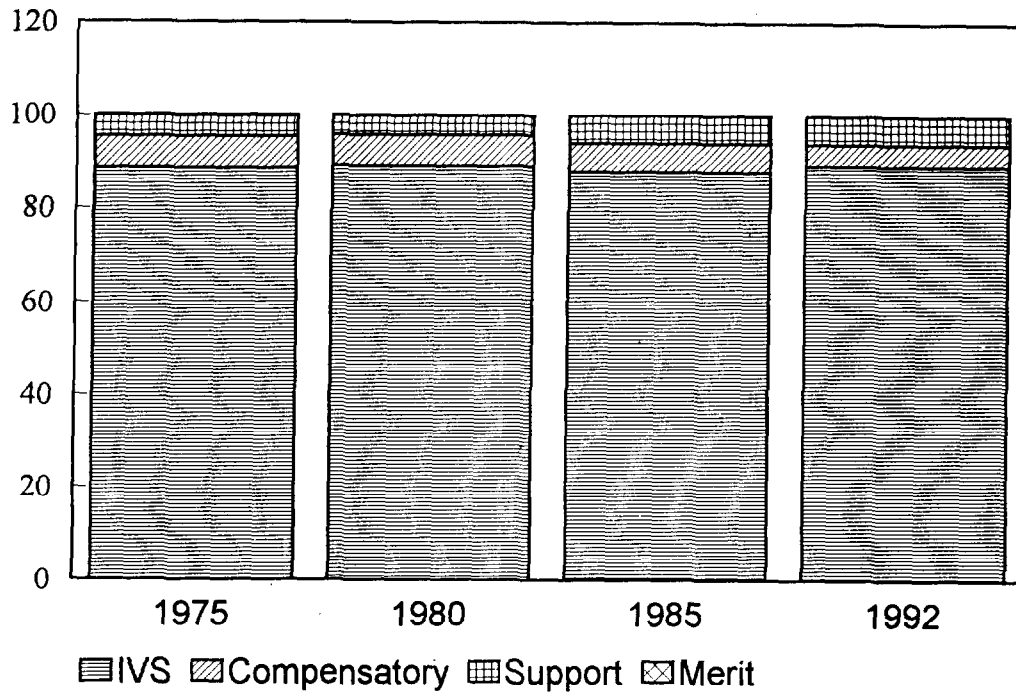
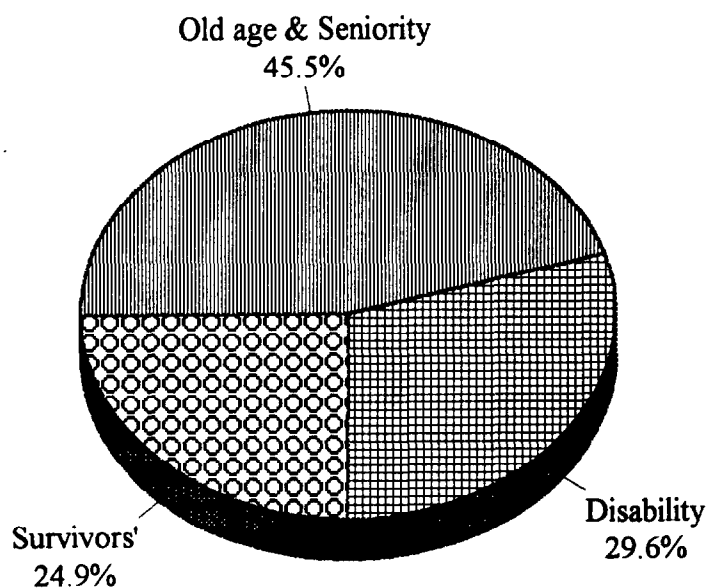


Chart 3

Italy

Composition of IVS Pensions, 1992 (In percent)

Shares of different IVS pensions



Shares of expenditure on different IVS pensions

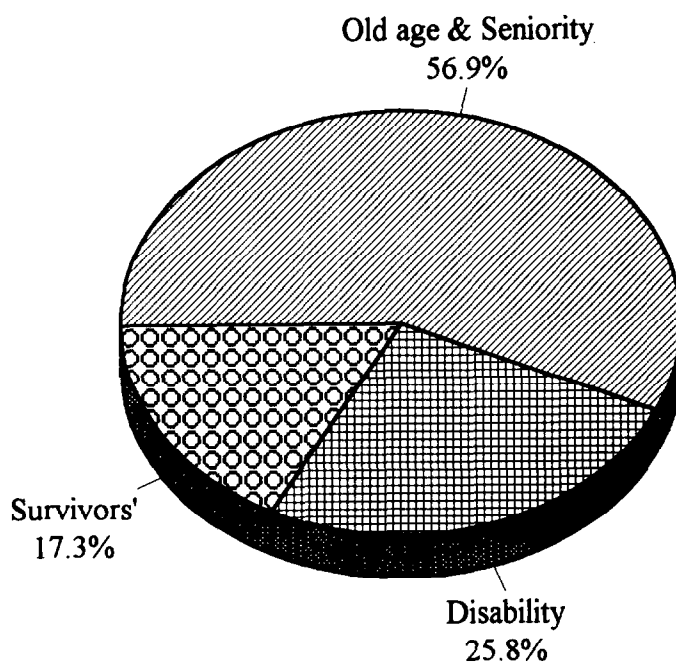


Chart 4
Italy
Coverage and Administration of IVS Pensions

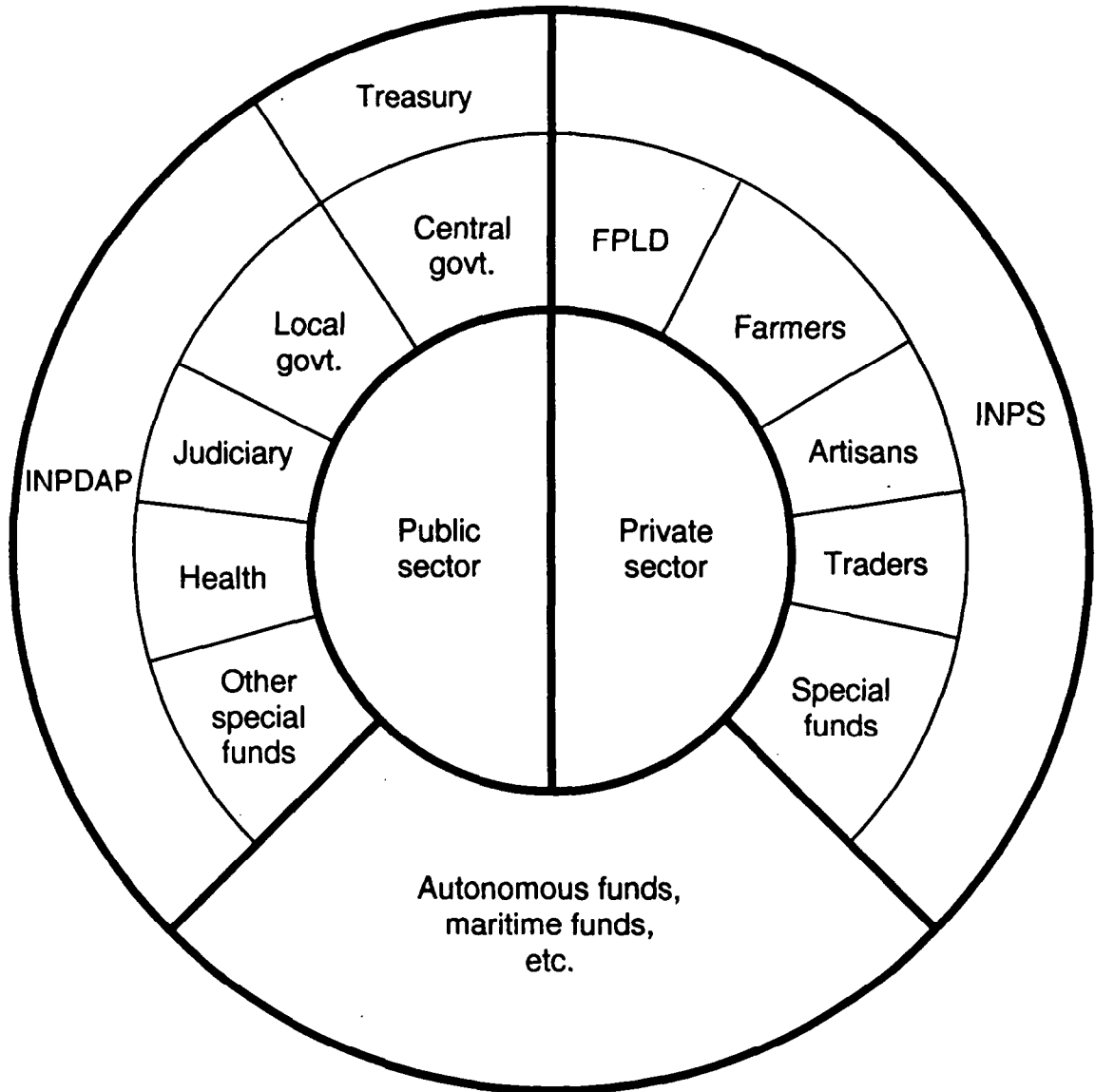
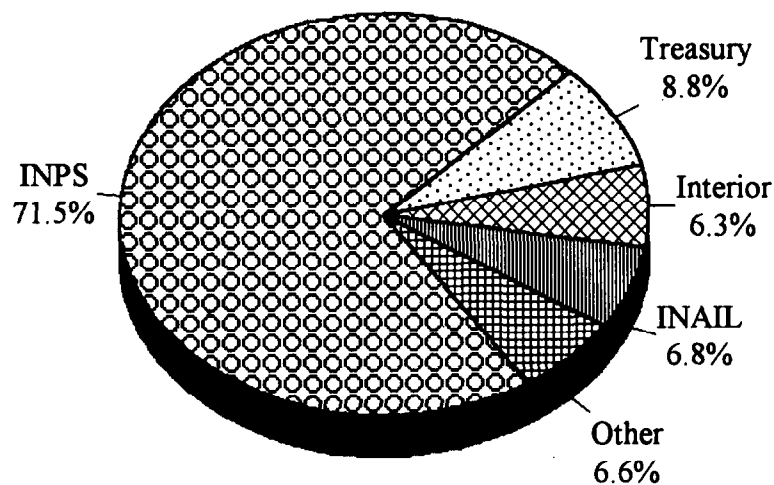


Chart 5

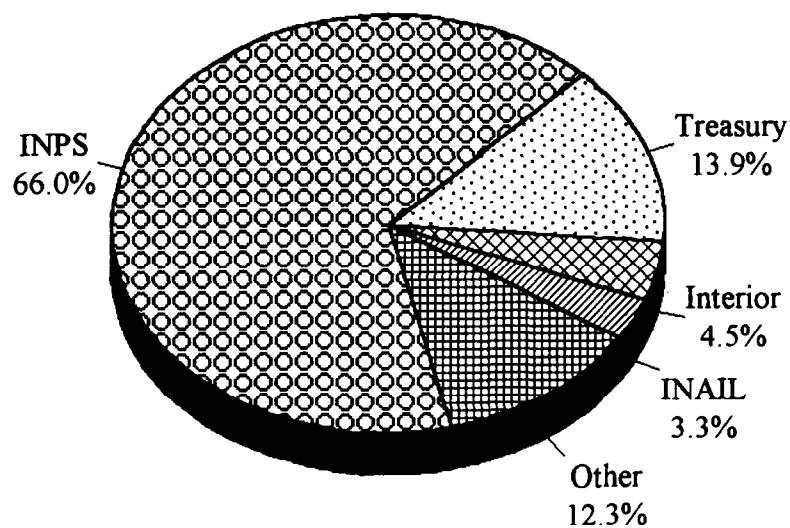
Italy

Shares of Pension Providers, 1992 ^{1/} (In percent)

Shares in the total number of pensions



Shares in total pension expenditure



Source: ISTAT (1994a) and (1994b).

^{1/} Data reflect the situation in 1992. Since INPDAP was created in 1994, it has become the second largest pension provider.

pensions and having a share of about two-thirds in total spending on all categories of pension benefits. 1/

c. Benefits, services, and financing

As noted above, the main provisions regulating IVS--and, in particular, old age and seniority pension--benefits in the Italian public pension system were changed and made more uniform in 1992, although the changes were introduced gradually. This section describes the main provisions as they stand now, and any transitional arrangements currently in force are indicated in footnotes. For additional detail, see *inter alia* INPS (1993), Orru' et al. (1993), and CEIS (1994).

In general, pension benefits in Italy are earnings-related. They are calculated on the basis of a fixed accrual rate times assessed income (income of the contributor over a specified period of time prior to retirement) times the number of years of contribution, up to a maximum of 80 percent of assessed income. The accrual rate varies between nongovernment and government employees: for most of the former (those covered by INPS) it is a flat 2 percent, while for the latter it is 2.33 percent for the first 15 years of contributions and 1.8 percent afterwards. 2/ The assessed income is lifetime income. 3/ If the benefit thus calculated falls short of a specified amount, it is raised to this level (*trattamento minimo*), unless total family income exceeds three times the amount of this minimum pension (twice the amount in the case of a single pensioner). The current retirement age for an old age pension is 61

1/ The Chart is based on 1992 data, which show the Treasury as the second biggest pension provider. Today, however, INPDAP, which was created in 1994, has taken over most of the funds previously administered by the Treasury, becoming in effect the second biggest provider in Italy.

2/ Thus, the average accrual rate for government employees is 2.2 percent after 20 years of contributions, declining gradually to 2.03 percent after 35 years. Thus, it is not only higher than that in the nongovernment sector, but it also gives an incentive for early retirement (see also Castellino 1994). Accrual rates for some funds outside INPS are higher.

3/ The period taken into account for the assessed income used to be much shorter before 1992, ranging from the last one month of employment for civil servants to the last five years for dependent workers in the private sector and the last ten years for self-employed. It was then changed to cover the total career for everybody, but this provision had immediate application only for those who had less than 5 years of contributions by December 31, 1992. Transitional arrangements were made for older contributors: the assessed income for those with more than 15 years of contributions by end-1992 was extended from 5 to 10 years, and that for those who had contributed between 5 and 15 years was extended to include the five years ending December 31, 1992, plus all the following years up to retirement.

years for men and 56 years for women. 1/ To qualify for an old age pension at retirement age, the contributor must have a minimum of 17 years of contributions. 2/

Instead of an old age pension, the same benefits can be paid as a seniority pension to those who retire with a minimum number of years of contribution, irrespective of age. This minimum contribution period is 35 years.

Pension benefits are indexed to the cost of living (until 1992 also to the minimum contractual wage in the industrial sector), with the adjustment being made once a year in November.

Finally, as regards the financing of the system, contributions are the main source of financing for pension benefits. 3/ Contributions are paid mainly by employers: of a total statutory contribution rate of 26.47 percent of the gross wage (for dependent workers), employees contribute only 8.34 percent. Contribution rates for the self-employed are much lower.

3. The case for reform

Several issues figure prominently in the current debate about pension reform: how generous is the Italian pension system? what is the current financial situation of INPS, the main pension provider? what are the medium- and long-term prospects for the system in view of the unfavorable long-term demographic outlook? and what measures can be taken to restore equilibrium? This part of the paper examines each of these issues in turn.

a. How generous is the Italian pension system?

One way of evaluating the generosity of the Italian pension system is to compare the benefits it offers to those offered by other systems. Table 4 presents the basic parameters determining benefits in the G-7 countries; for simplicity, the figures for Italy assume full implementation of the 1992 reform, ignoring the effect of the transitional arrangements in

1/ The retirement age was raised from 60 years for men and 55 years for women to 65 and 60 years, respectively, in 1992. At that time, it was decided to phase in the increase gradually during 1993-2002. The 1995 budget included a provision accelerating this transition, which is now to be completed by 2000. During the transition, incentives are provided for postponing retirement up to 65 years for men and 60 years for women.

2/ This minimum was 15 years prior to the 1992 reform, when it was raised to 20 years. This increase, however, is being phased in during 1993-2000.

3/ Indeed, according to law 88 of 1989, social security is supposed to be self-financing, and all state transfers to the social security system are supposed to finance only welfare payments. The extent to which this is the case is discussed in detail in section 3.b.

place. Even so, the Table clearly shows that the level of benefits in relation to earnings in Italy are among the highest: the accrual factor and the maximum replacement rate with respect to the last income are the highest, and the minimum contribution period for retirement the lowest. In addition, as noted above, the Italian system is the only one in the G-7 that offers the possibility of a seniority pension, i.e., retirement with full pension without penalty before the legal retirement age, provided the contributory minimum requirement is met. If the current provisions of the Italian system--rather than those that would apply after full implementation of the 1992 reform--were taken into account, Italy would appear to be even more out of line relative to the other G-7 countries.

The picture is similar if Italy is compared with the rest of the EU countries, although several among them (notably Denmark and the Netherlands) have historically had very generous pension systems. As Chart 6 shows, in 1991, Italy paid the highest old-age pension benefits relative to GDP per capita among all other EU countries: close to 80 percent, compared with about 73 percent in France, 70 percent in Denmark and the Netherlands, and about 65 percent in the EU on average (Commission of the European Communities 1993). ^{1/}

In addition to paying relatively generous benefits, Italy also has a relatively large number of potential claimants: 20.6 percent of the total population is aged 60 or older. This ratio (a variant of the old age dependency ratio, of which more below) is the second highest in the G-7, topped only by that in the U.K. (20.8 percent); indeed, it is among the highest in the entire OECD area, and compares with an OECD average of 18.2 percent. Furthermore, the elderly are projected to rise fast: by 2050, Italy is projected to have the highest share of over 60s among all OECD countries (36.5 percent), compared with an OECD average of 31.2 percent (World Bank 1994).

Against this background, it is no surprise that the share of pension spending in GDP in Italy is not only large in absolute terms, but also in relative terms. Although in the early 1960s Italy's pension spending was close to the G-7 average (5-6 percent of GDP), and until the early 1980s it was still below that in Germany or France (Holzmann 1989), by 1992, Italy spent 14.4 percent of GDP on public pensions, the highest share among the G-7 and--with the exception of Austria--in the entire OECD area (World Bank 1994). Also, the share of pension spending in total general government spending in Italy (37 percent) was the highest among the G-7 and--again with the exception of Austria--in the OECD.

^{1/} According to this source, Greece paid slightly higher benefits relative to GDP per capita than Italy. This, however, does not take into account the recent revision of Greece's national accounts that raised GDP (and GDP per capita) by about 20 percent; on the basis of the new national accounts, Greece's old-age pension benefits relative to GDP per capita would be close to the EU average.

An alternative way of evaluating the generosity of the pension system is using actuarial principles: what would be the level of pension benefits based on the actual contributions of the participants if the system was fully funded? Antichi (1993) asks this question. He considers a hypothetical person who retires in 1991 with forty years of contributions at the current contribution rates for dependent workers; the contributions are supposed to have been deposited in a fully funded pension fund, and remunerated at interest rates equal to those on government bonds between 1950 and 1991. Antichi examines different possible paths for lifetime earnings and different discount rates, and finds that in all cases the replacement ratio is never higher than 66 percent of the last wage. Compared with this, the current maximum replacement ratio of 80 percent suggests that the current system is too generous.

b. Social security vs. welfare: the finances of INPS

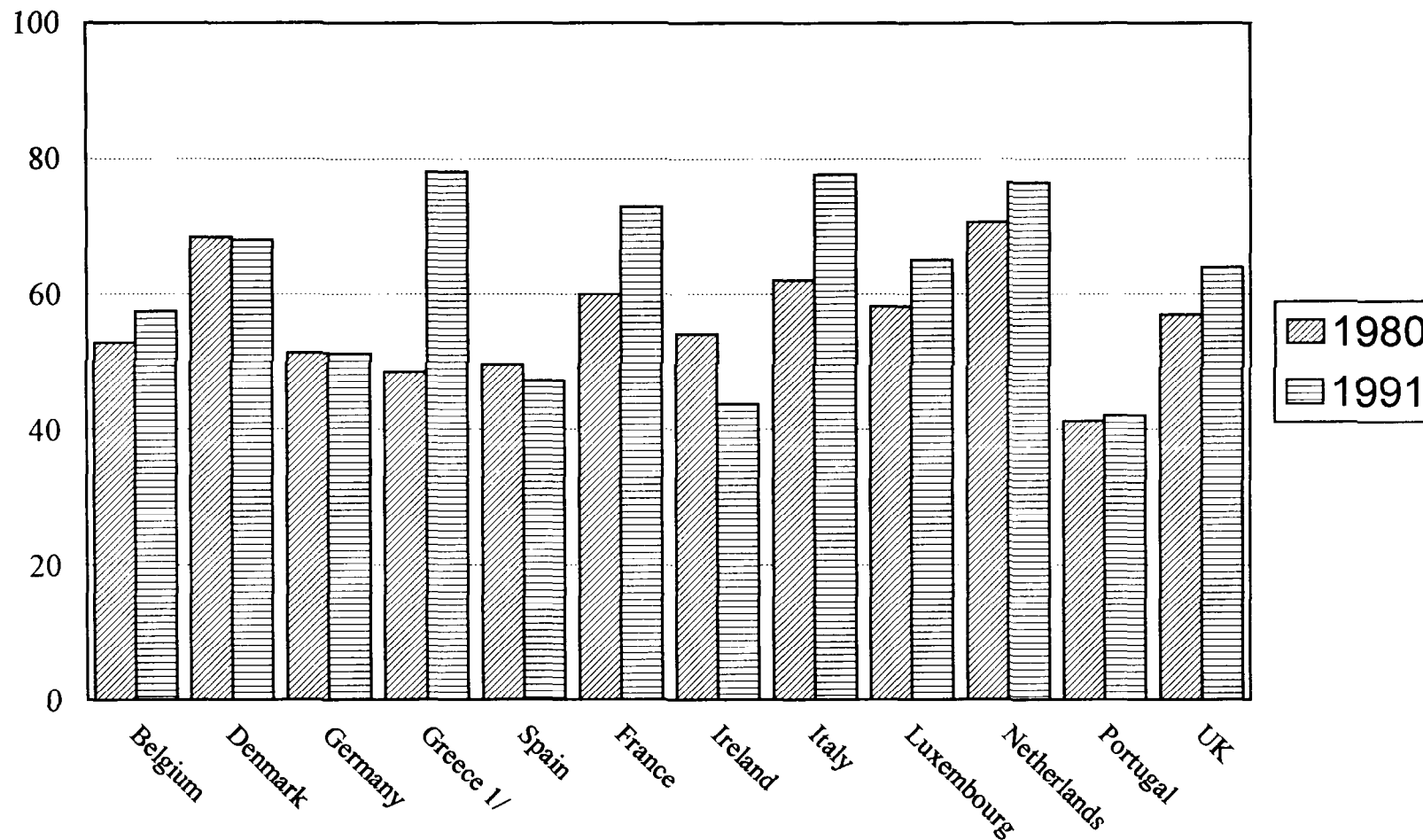
As INPS is by far the largest provider of pensions in Italy, the debate on the sustainability of the pension system is centered on the financial situation and prospects of INPS. To evaluate these, however, requires first disentangling the various kinds of benefits administered by the agency.

INPS administers three types of benefits: (i) pension benefits for a number of different categories of workers; (ii) temporary income support benefits (*prestazioni temporanee*) for dependent workers, which include unemployment compensation, sick and maternity leave payments, and wage supplementation (*Cassa Integrazione Guadagni*--CIG); and (iii) welfare benefits, such as old-age pensions for the indigent and various income support schemes, which are generally (but not always) means-tested. These benefits are administered under a large number of separate funds.

Law No. 88 of 1989 classified all these separate funds of INPS into two categories: social security (*previdenza*), grouping together pensions and temporary benefits for dependent workers, and welfare (*assistenza*). Within each category--although different benefits continue to be administered by separate funds--resources are fungible: surpluses of one fund can be used to finance the deficits of others. But the law drew a sharp distinction between financing for the two categories of benefits: social security benefits are supposed to be financed by contributions, and welfare benefits by transfers from the state budget.

As Table 5 shows, the social security accounts of INPS appear indeed to be self-financing (except in 1993), and the overall deficit of INPS (in the order of 4 percent of GDP annually during 1989-93) was mainly due to welfare spending. It should be noted that inside the social security accounts there are large differences between funds: the pension fund for dependent employees (FPLD) and that for farmers have large and rapidly growing deficits (which together amounted to some 2 percent of GDP in 1993), while the other funds are in small surplus. It is only thanks to the substantial surpluses of the administration of temporary benefits for dependent workers

Chart 6
Italy
Old Age Pensions in the EU
(In percent of per capita income)



Source: Commission of the European Communities (1993).
1/ Based on old national accounts data.

(presented in more detail in Table 6) that the social security accounts as a whole have not required exceptional financing.

The figures presented in Table 5 can be misleading. First, they reflect the economic accounts, rather than the actual financial cash position, of each fund. In cash terms, the social security accounts are in deficit: instead of a surplus of Lit 3.6 trillion in 1992 and a deficit of Lit 5.8 trillion in 1993, as shown in Table 5, the social security accounts registered cash deficits estimated by the Treasury at about Lit 12.9 trillion and Lit 19.2 trillion, respectively. The differences between the economic and the cash accounts are mainly due to the complex system of transfers between accounts. As a result, their net effect on the overall balance of INPS is often (but not always) small, as a larger cash deficit in one account can be offset by a smaller cash deficit in another. However, such differences make the assessment of the financial position of each account very difficult, and obfuscate the overall situation of INPS. A further complication arises from the fact that a large part (sometimes more than half) of the budget transfers to INPS have been in the form of cash advances from the Treasury account (Table 7). These cash advances are technically loans to INPS, and create a counterpart liability towards the Treasury account. This asset of the Treasury is, of course, fictitious, since INPS has no capacity to repay. At end-1993, this cumulative liability of INPS towards the Treasury was estimated at some Lit 141 trillion, or almost 10 percent of GDP (INPS 1993).

More importantly, although law 88 of 1989 determined precisely which benefits are to be considered social security and which welfare, the distinction does not always reflect a clear economic rationale. Table 8 presents in some more detail the welfare accounts and the main categories of spending classified by the law as welfare (see also Artoni 1989). Some of these categories--such as social pensions for the indigent, income maintenance, family allowances--have a clear "welfare" character. But the grounds on which a number of outlays have been classified as welfare spending (to be paid out of general taxation proceeds) is ambiguous:

- pensions to farmers retired prior to 1989 (and to their survivors) are not classified as social security but as welfare, because employment in farming has been declining; but in a pay-as-you-go system, the effects of reduction in employment in one sector are supposed to be offset by transfers from other sectors in which employment is increasing;

- pension increases awarded retroactively to certain categories of pensioners, which are now being paid gradually (*pensioni d'annata*), are classified as welfare in order not to upset the financial balance between current pensions and current contributions; but--as with any other increases in benefits--these should arguably be covered by contributions;

- pensions to those taking advantage of early retirement schemes until they reach the legal retirement age (or fulfill the requirements for seniority retirement), as well as the cost of exemptions from or rebates for

social security contributions are not classified as social security, presumably because they reflect wider social policy objectives of the government; but there seems to be little justification for including them in welfare, particularly since these benefits are not supposed to be for income support and are not means-tested;

- part of the spending of the Wage Supplementation Fund (the so-called "extraordinary" CIG benefits) is classified as welfare, whereas the spending for "ordinary" CIG benefits is instead classified as temporary benefits for dependent workers, thus falling under social security; the rationale for this different treatment is unclear, since both really are unemployment benefits;

- supplementary payments to raise pensions to the statutory minimum level (*integrazione al minimo*) are classified as welfare because they are income-support payments; but, according to the Ministry of the Treasury, recent Constitutional Court decisions have upheld the "social security" character of such payments (Camera dei Deputati 1994).

In summary, the extent to which the social security accounts of INPS have truly been self-financing and, more broadly, the distinction between social security and welfare embodied in the current law need careful reconsideration. In the context of the current debate on pension reform, the government itself has raised these issues (Camera dei Deputati, *op. cit.*), and it is clear that a lasting reform would have to address them.

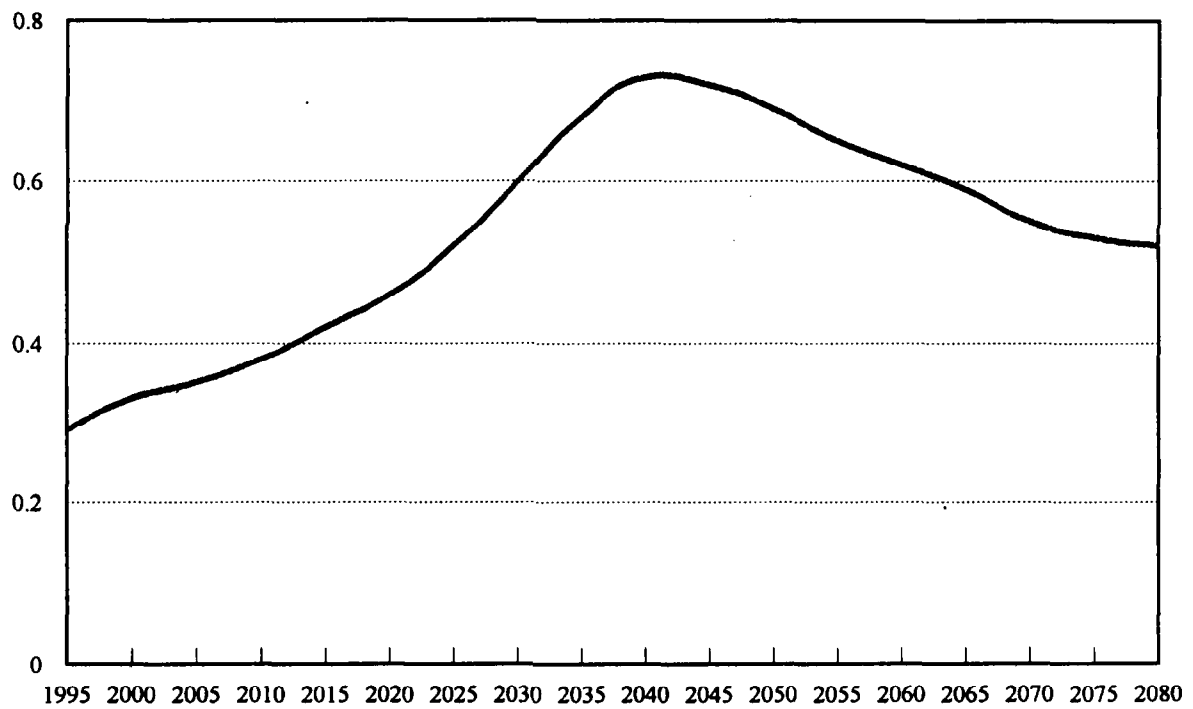
c. The long-term prospects of the system

Any reform of the Italian pension system would not only need to restore equilibrium in its current finances, but also guarantee its long-term viability. This section examines the long-term prospects of the system using a number of different indicators.

The old age dependency ratio, defined as the ratio of people of pensionable age to those of working age (between 15 years and the pensionable age), is the simplest indicator used to evaluate the effects of demographic evolution on the pension system; it shows the potential number of pensioners who would have to be supported by the working generation in a pay-as-you-go system. Chart 7 presents the outlook for the old age dependency ratio for 1995-2080. ^{1/} The ratio starts at about 29 percent in 1995, peaks at 73 percent in 2040, and then declines to a little over 50 percent by 2080. This simple indicator brings out clearly the adverse long-term effects of the current demographic trends in Italy.

^{1/} Recent population data and projections were obtained from the World Bank; they may be slightly different than those used in World Bank (1994). For simplicity, the transitional provisions of the 1992 reform in raising the retirement age to 65 years for men and 60 years for women are ignored.

Chart 7
Italy
Old Age Dependency Ratio



The old age dependency ratio is an imperfect indicator of the prospects of the pension system. It is a demographic indicator for the whole society. However, not everybody participates in the labor market or has a pension. To investigate the evolution of pension expenditures, the ratio of pension outlays (PE) to GDP can be decomposed as follows:

$$\frac{PE}{GDP} = \frac{\text{Beneficiaries}}{\text{Employed}} * \frac{\frac{PE}{\text{Beneficiaries}}}{\frac{GDP}{\text{Employed}}}$$

where, on the right-hand-side is the beneficiary ratio (the ratio of beneficiaries to contributors) times the transfer ratio (the ratio of pension expenditure per beneficiary to GDP per worker).

The outlook for both of these ratios under the current system has been explored by INPS. Table 9 presents these projections for the two ratios for the four main INPS funds. 1/ Under the current system, the beneficiary ratio for the FPLD is projected to rise continuously from 93 percent in 1995 to almost 100 percent by 2030; at that point, there would be about one pensioner for each dependent worker. Although the funds for traders and artisans start with beneficiary ratios of about 50 percent, their situation would deteriorate much faster, and by 2030 they would be in a similar shape as the FPLD. Only the beneficiary ratio for the farmers' fund is projected to improve, but would still remain well above 100 percent throughout the period. As regards the transfer ratio, it is projected to remain at about 50 percent through the period for the FPLD, but increase for all other INPS funds. The current values of the beneficiary and transfer ratios for funds outside INPS vary greatly, reflecting the fragmentation of the system. 2/

The beneficiary and transfer ratios are useful as indicators of the underlying trends of the system, but do not demonstrate directly the implications of these trends for the financial balance of the system. For this purpose, the equilibrium contribution rate (ECR) is used. The ECR is the ratio between pension expenditure and the total wage bill on which

1/ It should be noted that the number of beneficiaries in fact reflects the number of pensions, which is only an approximation of the number of pensioners; if there is a large number of people receiving more than one pension, or receiving a pension and working at the same time (and thus appearing in both the numerator and the denominator), these ratios can be substantially biased.

2/ The *Relazione generale sulla situazione economica del paese*, 1993, reports that beneficiary ratios for different funds outside INPS range from less than 10 percent (soccer players), to 30 percent (air transportation, entertainment sector, banks), to 40 percent (artisans, priests, INPGI, INPDAI), to more than 100 percent (miners, farmers). Similarly, INPDAI and ENPALS have the highest transfer ratios, while the funds for engineers, lawyers, and notaries have the lowest.

contributions are paid, and can be interpreted as the contribution rate that would balance a pay-as-you-go fund providing a certain level of benefits, given the demographic prospects and the outlook for employment and productivity growth. An ECR that is higher than the statutory contribution rate indicates that the fund is financially imbalanced.

The ECR for the four main funds of INPS has been projected by INPS through 2030 (Chart 8). The macroeconomic scenario underlying these projections is presented in Table 10. 1/ The ECR for the FPLD, after declining slightly through 2005, would increase again and remain at about its present level (49 percent), much higher than the statutory rate for dependent workers (26.47 percent). The outlook for the other INPS funds is worse: the ECR for the traders' and artisans' fund is projected to rise rapidly from its present level (close to the statutory rate for these categories of employees) to over 40 percent. The ECR for the farmers' fund is projected to decline over time (mainly because the number of pensioners on this fund is expected to fall), but would still remain well above 100 percent throughout the period.

These results underscore the fundamental long-term imbalance of the main INPS funds in the absence of new measures. They also bring out clearly a fact that is not evident in the current accounts of INPS: that the financial situation of the funds for artisans and traders, which so far have registered healthy surpluses, is bound to deteriorate rapidly in the future.

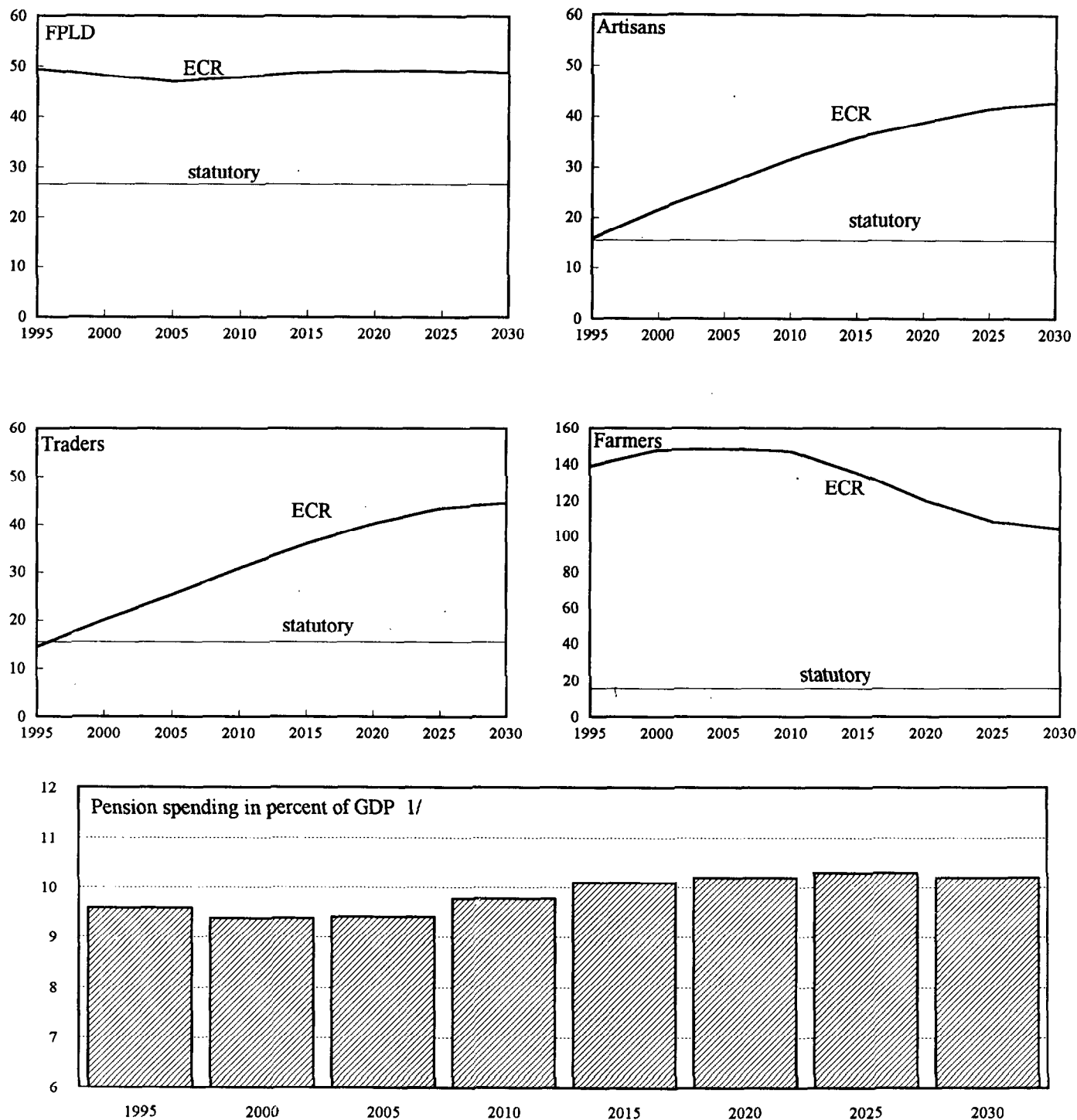
On the basis of these estimates and the macroeconomic scenario in Table 10, it is possible to calculate the share of pension spending in GDP for these four funds. 2/ The result is presented in the lower panel of Chart 8. After a slight initial decline, pension spending by INPS under the current system would increase gradually to over 10 percent of GDP in the beginning of the next century.

These calculations should be interpreted with caution. Orru' et al. (1993) note that the INPS projections are predicated on historical patterns of behavior; behavior, however, can change significantly under the influence of systemic changes, such as the 1992 reform and the transitional arrangements, leading to a very different outcome for pension spending. Moreover, the projections stop at 2030. However, since demographic indicators would continue to deteriorate after that (as shown by the old age dependency ratio projections discussed earlier), it is likely that the strains on the finances of the system would increase, possibly setting the

1/ The projections are based on the pension system as at end-1994. They do not incorporate any subsequent changes in the system, notably the acceleration of the transitional arrangements of the 1992 reform approved as part of the 1995 budget (which, however, would only have a marginal impact).

2/ These funds account for the bulk of the pension spending by INPS. Pension spending by other social security agencies outside INPS is currently an additional 4-5 percent of GDP.

Chart 8
Italy
Equilibrium Contribution Rates and Total Pension Spending for INPS
Under the Current System



Source: INPS

1/ Includes only the four main INPS funds. Pension spending by agencies other than INPS amounted to an additional 4-5 percent of GDP in the early 1990s.

ECR of the FPLD on an upward path again. This presumption is also supported by Giarda & Morcaldo (1993). Nevertheless, despite the caveats, these projections show conclusively that, in the absence of early measures, the financial situation of the system is set to deteriorate and the share of pension spending in GDP, instead of declining, to increase further.

d. Reform options

The examination of the Italian pension system in an international perspective and the analysis of its long-term financial prospects bring out clearly the objectives that future reforms should try to achieve, and impose certain constraints on the measures that should be used. Any new measures should: (i) focus on benefits, and try to gradually bring them--as well as the level of pension spending--more in line with those in other industrialized countries; (ii) yield substantial savings from early on, and not only in the distant future, given the current financial balance of the FPLD and the prospects of the other INPS funds; and (iii) have a growing impact over time, given the adverse long-term demographic dynamics. This section explores the effects of a number of different reform options.

Although the simulations trace the effects of these measures on each of the four main INPS funds, the ultimate purpose of the reform should not be to balance each pension fund separately, but rather to restore the viability of the system as a whole (in a pay-as-you-go system, transfers between funds for different occupations are natural). For this reason, the simulations also present the effect of the different measures on the total pension spending of INPS, and the "savings" relative to the no-measures baseline presented in Chart 8. ^{1/}

Before any specific measures are implemented, a strategic decision must be taken: where to draw the line between pensions and welfare, and how to finance each. Only after this distinction has been made can the present and prospective imbalances of the pension system be identified and the appropriate measures designed. The simulations presented in this section are based on the distinction between pension and welfare spending currently embodied in law. But--as discussed in section 3.b above--a large part of the expenditures of INPS currently defined as welfare is arguably pension spending. If these expenditures were to be re-classified, then pension spending would be higher than it appears in Chart 8 and, consequently, bolder measures would be needed to reduce it to levels comparable to those in other countries.

The simulations are based on the data and macroeconomic assumptions underlying INPS' calculations presented in the previous section. Although this facilitates a comparison of the results, it also makes them subject to the same caveats applying to the INPS model, discussed above. It is assumed

^{1/} Due to data availability, simulations are performed only for the funds of INPS; these account for two-thirds of total pension spending in Italy.

for simplicity that any new measures would be introduced on January 1, 1996 with immediate effect, without any transitional arrangements; this, of course, is unlikely in reality. Therefore, these results should be interpreted with caution: they are intended as illustrative projections, rather than precise estimates of the effects of the measures. Nevertheless, they give an idea of the relative size and speed of realization of the effects of the various reform options.

(1) Lowering the accrual rate

The current accrual rate of 2 percent is perhaps the highest among industrialized countries. A lower coefficient would not only bring Italy more in line with these, but would also result in sizeable savings. Chart 9 shows the effects on the ECR of lowering the accrual rate from its present level starting in 1996. Three possibilities are explored: lowering the rate to 1.75 percent, ^{1/} to 1.6 percent, and to 1.45 percent. In each case, it is assumed that old age and seniority (*vecchiaia & anzianita'*) pension benefits for all those who retire after January 1, 1996 are calculated on the basis of the old accrual rate of 2 percent per year on the assessed income earned up to 1995, and on the basis of the lower accrual rate on income earned starting in 1996. In all three cases, the effects of this measure are negligible in the first few years, but increase substantially over time. An accrual rate of 1.6 percent would bring the ECR for the FPLD down to almost the level of the statutory rate by the end of the projection period; an accrual rate of 1.45 percent would close this gap by about 2025. As regards the other funds, reducing the accrual rate has similar effects on the ECR. The effect of this measure on the level of pension spending is likewise important, but only in the long run: total pension spending by INPS would remain relatively unaffected until the turn of the century, but start declining rapidly after that: by 2030, the annual savings (compared with the baseline "no-measures" projection) would reach 3-6 percentage points of GDP (for simplicity, the lower panel of Chart 9 shows only the savings in the case of an accrual rate of 1.6 percent, which reach some 4½ percentage points of GDP per year by 2030).

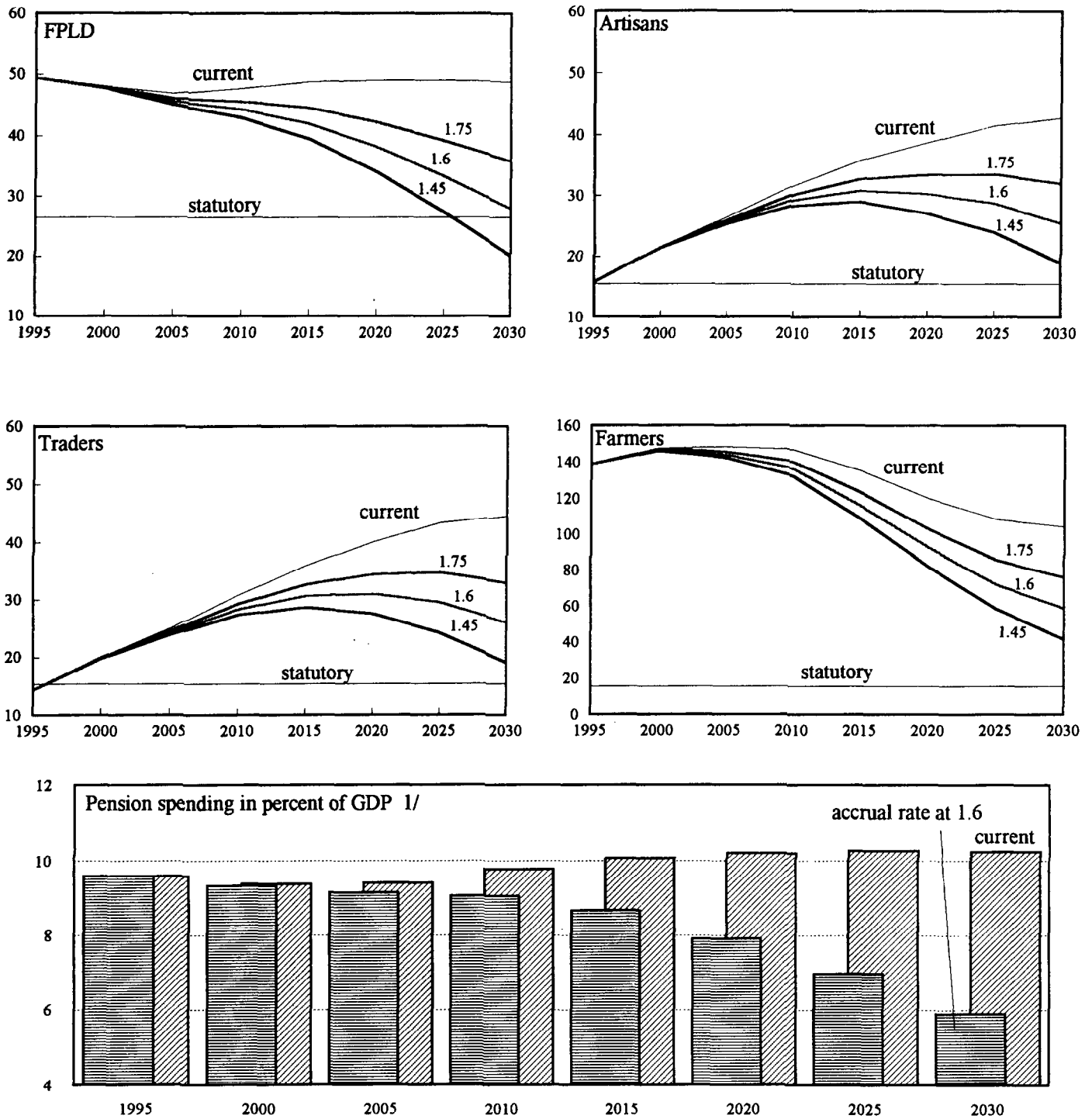
(2) Raising the retirement age for women

Although the retirement age for all pensioners was raised in 1992, that for women remains lower than that for men. The rationale for this is not clear. This feature is particularly puzzling given that women have a higher life expectancy, and thus receive pension benefits for longer. ^{2/} If pension benefits were to be linked to the residual life expectancy of the beneficiary--as stipulated by the November 1994 agreement between government

^{1/} This was one of the proposed measures in the original 1995 draft budget (with effect from 1996), which were eventually withdrawn.

^{2/} Currently, the expected residual life time after retirement is approximately 12.4 years for men and 21.3 years for women, based on a retirement age of 65 for men and 60 for women (World Bank 1994).

Chart 9
Italy
Reform Options: Lowering the Accrual Rate



1/ Includes only the four main INPS funds.

and social partners on the broad outline of pension reform--the current retirement age for women would clearly have to be reconsidered. Chart 10 presents the effects of raising the retirement age for women to 65 years, all other things being equal. The simulation assumes that, as of January 1, 1996, women who reach 60 years and still work would not be able to get an old age (*vecchiaia*) pension, but would have to wait until 65 (the measure would not, of course, affect those women who had already retired before 60). Raising the retirement age for women would have an immediate impact on pension spending. 1/ Moreover, it would have a double effect on the ECR, since it would both lower pension outlays and increase the wage bill and, thus, the contribution base. Thus, the ECR for the FPLD would stabilize at about 45 percent, instead of 49 percent, as in the baseline. As regards total pension spending, equalizing the retirement age for women and men at 65 years would generate immediate annual savings (relative to baseline) of 4.1 percentage point of GDP.

(3) Introducing a penalty for seniority retirement

As mentioned above, seniority (*anzianita'*) retirement, which allows retirement with a full pension before the legal retirement age provided a contributory minimum has been met, is a particular feature of the Italian pension system. It provides incentives to retire early and earn a pension while having a second job, and has significant distributional effects between generations (Castellino 1994). As with the retirement age for women, the principles incorporated in the November 1994 agreement between government and social partners on the outline of pension reform would require drastic changes in the institution of seniority pensions.

Estimating the effects of changes in seniority pensions is very difficult. Short of outright abolition, reforming the system would most likely involve disincentives for seniority retirement before the legal retirement age through, e.g., lowering benefits. The financial effects of such measures, however, depend on the response of potential pensioners: would they accept a reduced pension, or would they instead choose to work (and contribute) for longer before retiring? Chart 11 presents the simulated results of introducing a penalty for early retirement. It is assumed that, starting in 1996, even if the contributory minimum of 35 years is satisfied, seniority retirement before the age of 65 for men and 60 for women would result in a pension reduced by a fixed coefficient times the number of years remaining until retirement age (the measure would, of course, only apply to new retirees). Two variants are tried: a coefficient of 2.5 percent per year, and a coefficient of 5 percent per year. 2/ On the face of it, the penalties implied by these coefficients are substantial:

1/ For simplicity, the simulation ignores the possibility that raising the retirement age for women might have an effect on the number of women retiring on a seniority pension.

2/ The original draft 1995 budget included a similar mechanism that would have reduced pension benefits by 3 percent per year.

for example, a penalty of 5 percent per year would mean that the pension of a man retiring at the age of 55 after 35 years of contributions would be half of what he can expect today under the same conditions. These penalties, however, are not high if the longer residual life expectancy of those retired early is taken into account: in the example given above, and for reasonable values of the discount rate, the net present value of the cumulative pension benefits earned by a man retiring at 55 is higher than that of the benefits earned retiring at 65, even if a penalty rate of 5 percent per annum is applied; the early retiree is of course much better off if, in addition to earning a pension, he can also work. These penalties are also not high by international standards. ^{1/} On this basis, as regards the behavioral response of potential pensioners, the simulation makes the assumption that the penalty does not alter the timing of retirement. Under these assumptions, Chart 11 suggests that imposing such penalties would have effects comparable in size to those of raising the retirement age of women to 65 years, albeit more gradual: the ECR of the FPLD would stabilize at 44-46 percent in the long run, generating annual savings of about 1 percent of GDP relative to baseline.

The assumption about the behavioral response to the penalty means that the results of the simulation in Chart 11 are underestimating the effects of such a reform on pension spending, at least in the short run. If some potential pensioners decide to postpone retirement rather than accept a reduced pension, pension outlays would initially be lower than shown in Chart 11; in the long run, however, the effect is ambiguous, because the decision to postpone retirement would imply a higher pension later on.

(4) Reducing survivors' (superstiti) pensions

The transferability of pension benefits to surviving relatives of the original beneficiary irrespective of their age or employment status is another area of possible savings. It has also been identified as such in the agreement between government and social partners. Chart 12 presents the simulated effects of reducing benefits to all survivors of working age (up to 65 years for men and 60 years for women) by 50 percent relative to their present level starting on January 1, 1996. This measure would reduce the ECR for the FPLD and stabilize it at about 46 percent, compared with 49 percent in the baseline. Also, total pension spending of INPS in percent of GDP would not increase in the long run, as in the baseline, but would stabilize below 10 percent of GDP.

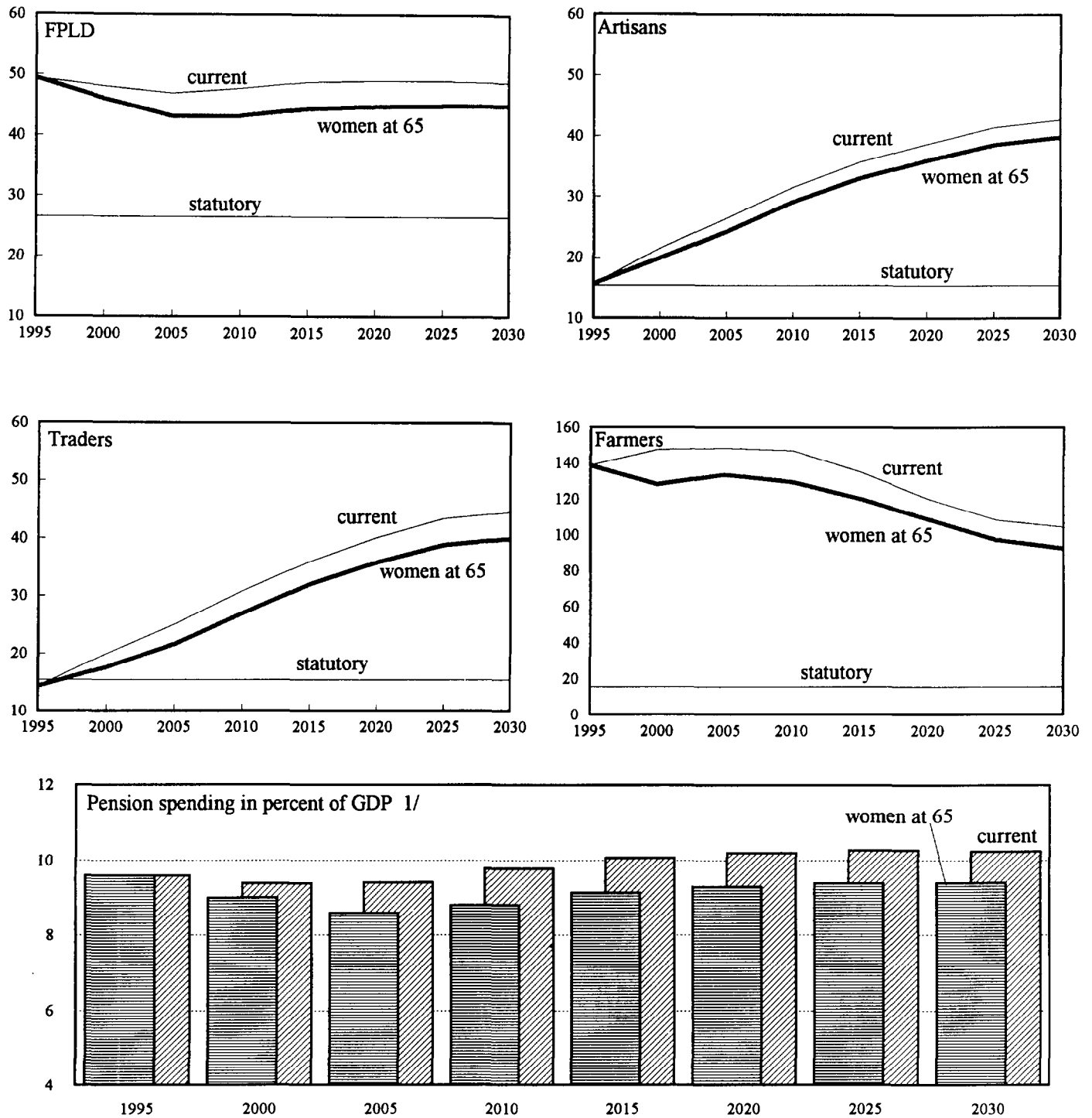
A combination of some of these measures would naturally compound their impact. Chart 13 presents the effects of raising the retirement age for women to 65 and, at the same time, introducing a penalty on early retirement

^{1/} In the US, the pension earned by an early retiree is calculated so as to be "actuarially equivalent" to that earned by someone retiring at the normal retirement age. In Spain, a penalty of 8 percent per annum is applied for early retirement (with certain restrictions).

Chart 10

Italy

Reform Options: Raising the Retirement Age for Women to 65

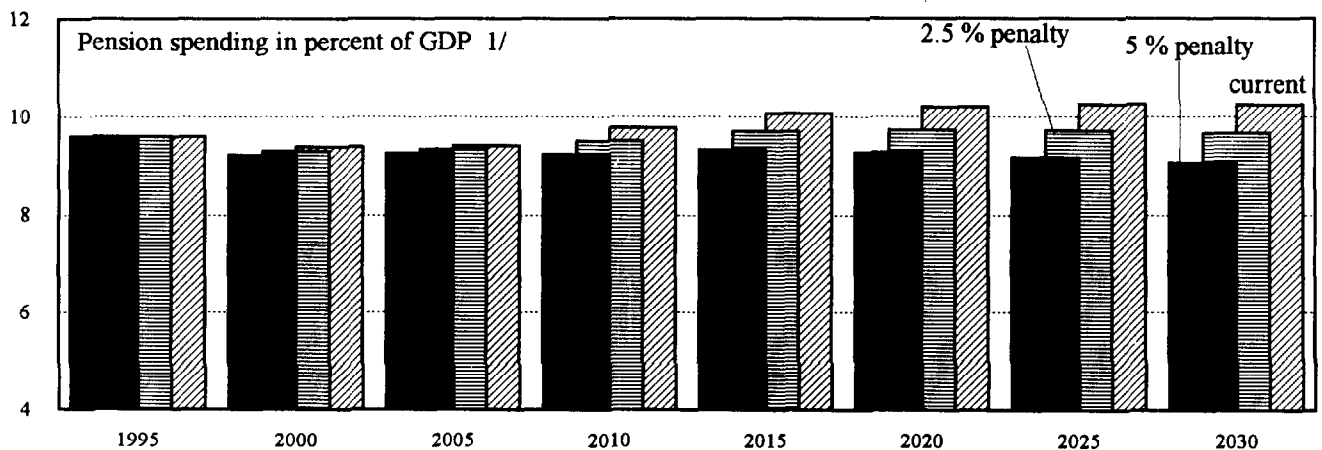
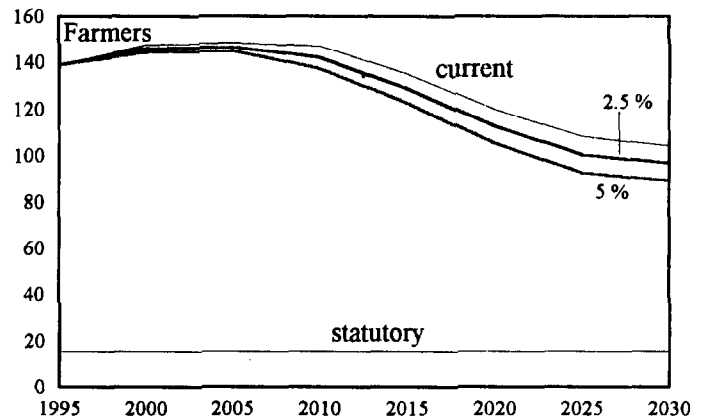
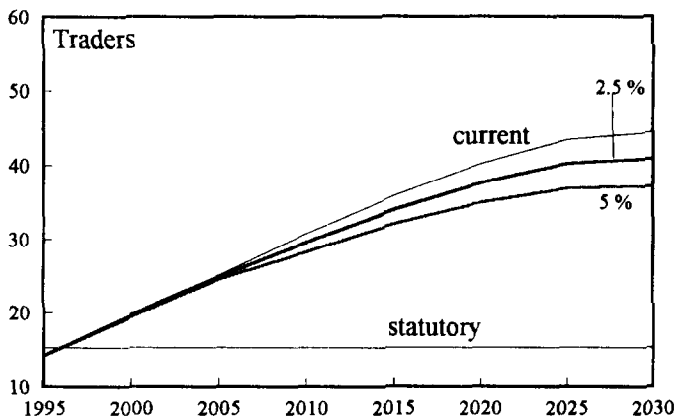
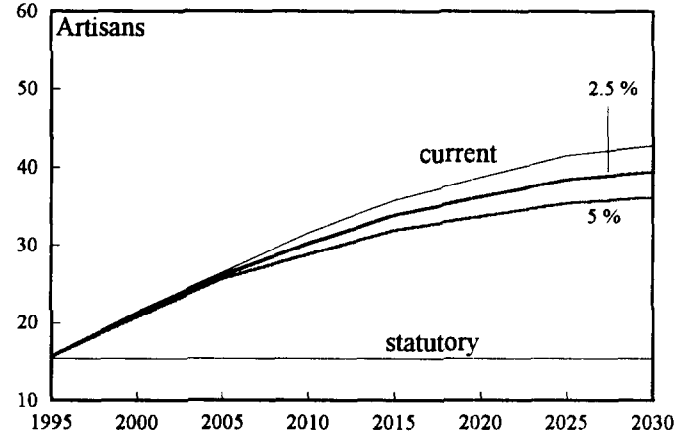
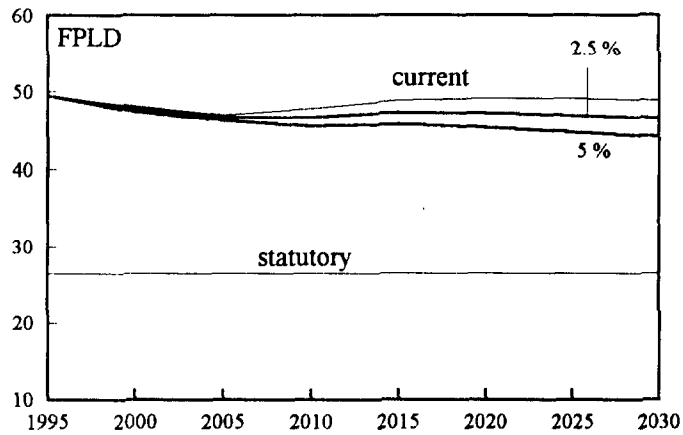


1/ Includes only the four main INPS funds.

Chart 11

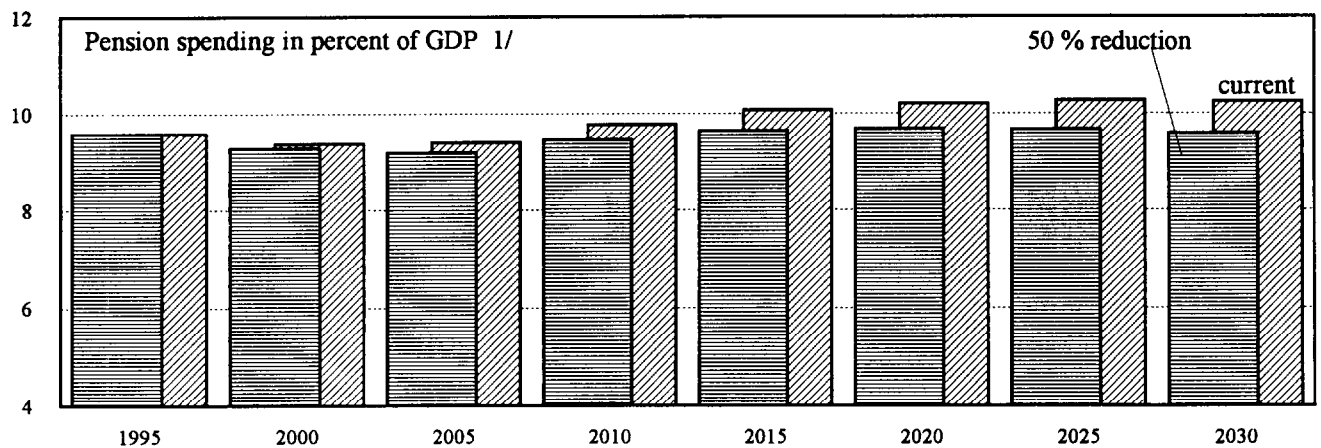
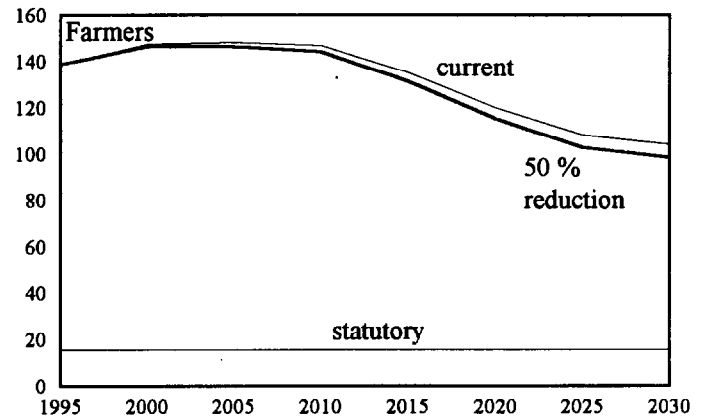
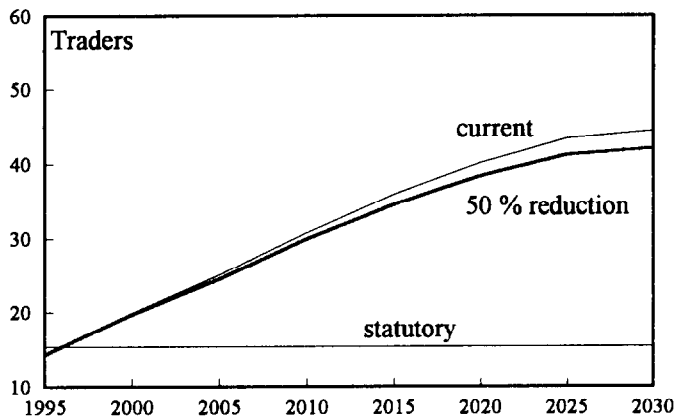
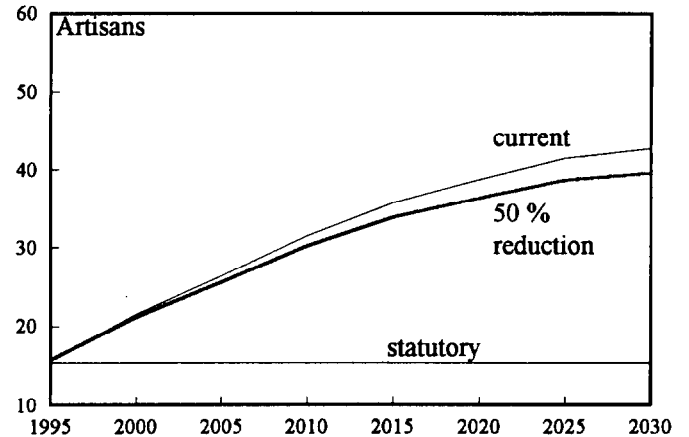
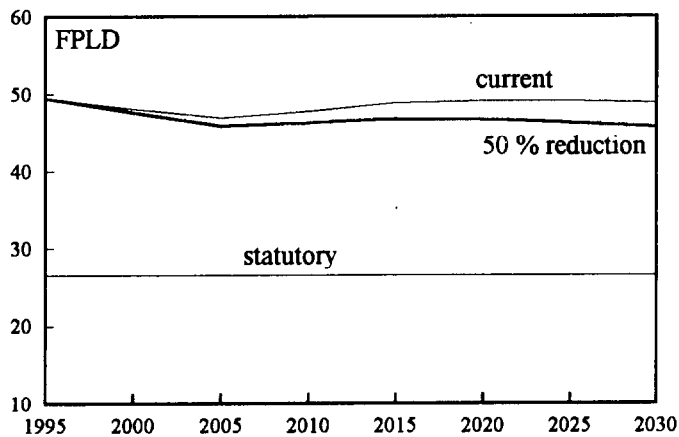
Italy

Reform Options: Introducing an Early Retirement Penalty



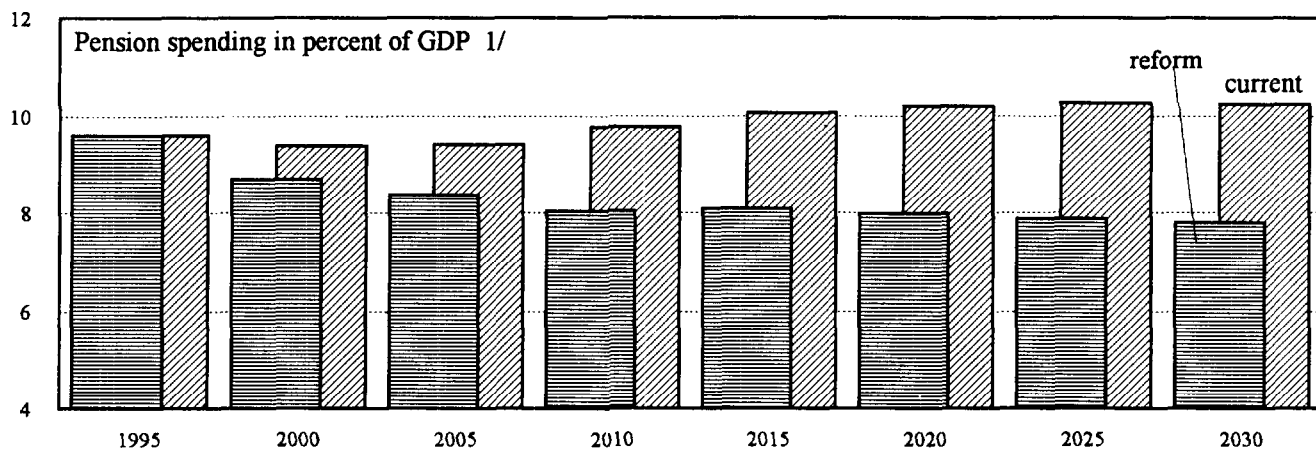
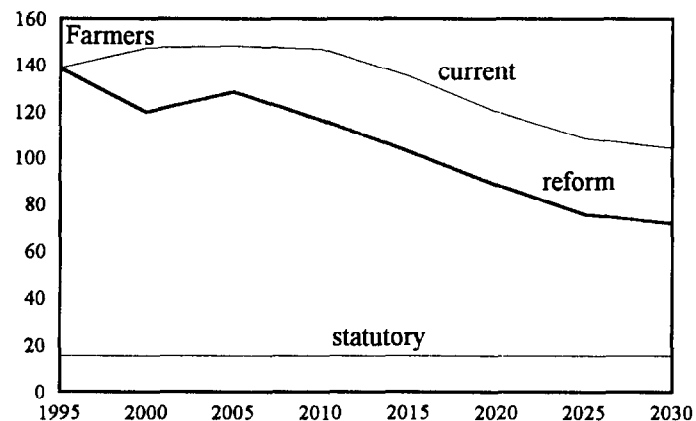
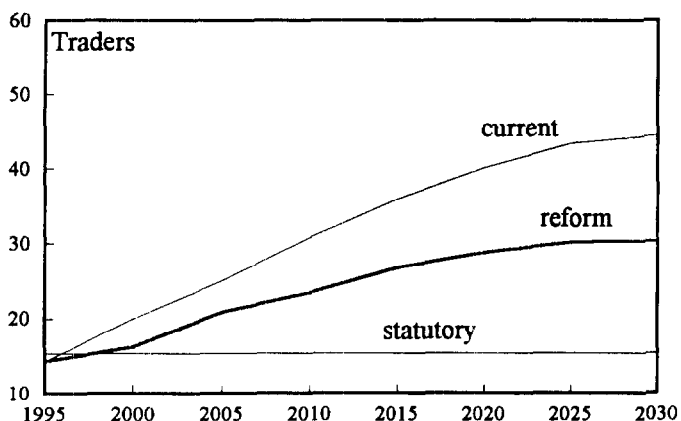
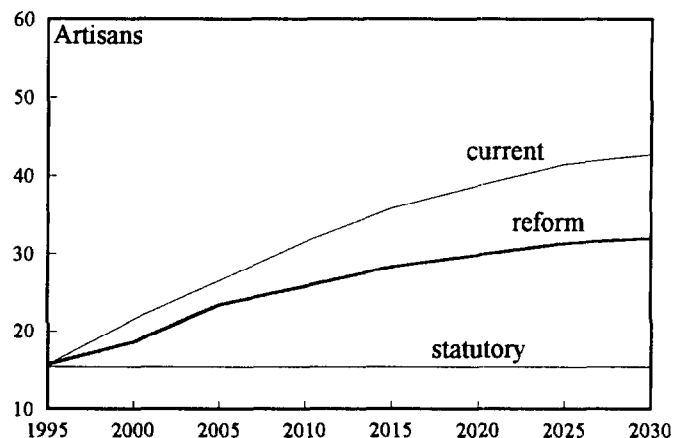
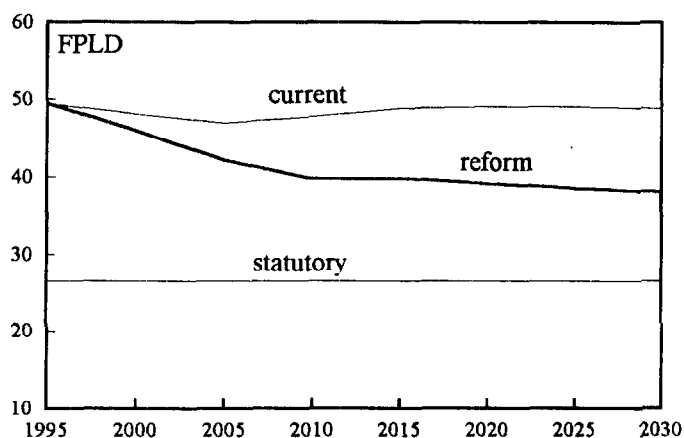
1/ Includes only the four main INPS funds.

Chart 12
Italy
Reform Options: Reducing Pensions to Survivors of Working Age



1/ Includes only the four main INPS funds.

Chart 13
Italy
Reform Options: Raising the Retirement Age for Women and Introducing
an Early Retirement Penalty



1/ Includes only the four main INPS funds.

equal to 5 percent per year. These measures would quickly reduce and stabilize the ECR for the FPLD at about 38 percent, as well as significantly moderate the increase in the ECRs of the funds for artisans and traders. As regards total pension spending of INPS, already by 2000 these measures would generate annual savings relative to baseline of $\frac{1}{2}$ percentage point of GDP, which would grow to over 2 percentage points of GDP in the long run.

Given the different characteristics of the various reform options (notably the size of the resulting savings and the speed at which these are realized), it would be advisable to combine some quick-yielding measures (such as raising the retirement age for women) with measures that have a growing impact over time (such as lowering the accrual rate). Chart 14 presents the simulated effects of a reform package consisting of equalizing the retirement age for men and women to 65 years, introducing an early retirement penalty equal to 5 percent per year, and reducing the accrual rate to 1.6 percent. This package would reduce the ECR for the FPLD to the level of the statutory rate by 2025, and put the ECRs of all other funds on a firmly downward trend. In addition, it would yield immediate annual savings relative to baseline of over $\frac{1}{2}$ percent of GDP, growing to 1 percent in the early part of the next decade. Over the long run, this package would reduce INPS pension spending to about half its level in the no-measures baseline projection.

4. Conclusions

This paper reviewed the Italian pension system as it stands today, after a round of reforms in 1992, and its prospects for the future. The main conclusion is that the 1992 reform did not go far enough: in the absence of additional measures, pension spending will go on increasing (albeit more slowly than in the past), and the balances of the main pension funds are going to deteriorate, especially as demographic pressures mount during the next half-century. As the contribution burden is already quite high, while benefits in Italy are very generous by international standards, further reforms are needed to reduce pension expenditure.

At least some of the areas of possible intervention are clear; some have also been identified in the November 1994 agreement between the government and the social partners: arrangements for seniority benefits could be tightened considerably; the accrual rate could be reduced to be brought more in line with international practice; the retirement age for women could be raised to that for men; and survivors' benefits could be reduced. But before specific measures are designed and implemented, the objective of the reform should be clearly identified. This requires first of all a clarification of what benefits should be classified as pensions (to be financed only or primarily through contributions), and what as welfare (to be financed by general taxation proceeds). The distinction embodied in law 88 of 1989 does not seem to have a clear economic rationale. The absence of such a rationale means that the classification is, to some extent, arbitrary, and can be changed over time. As the demographic pressures on the pension funds increase, this might create the temptation to

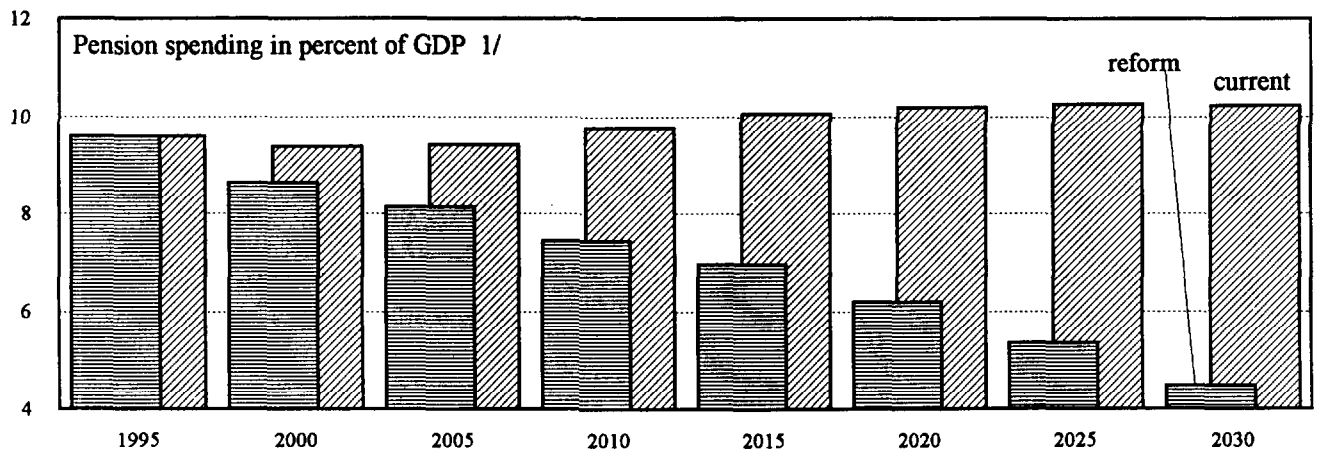
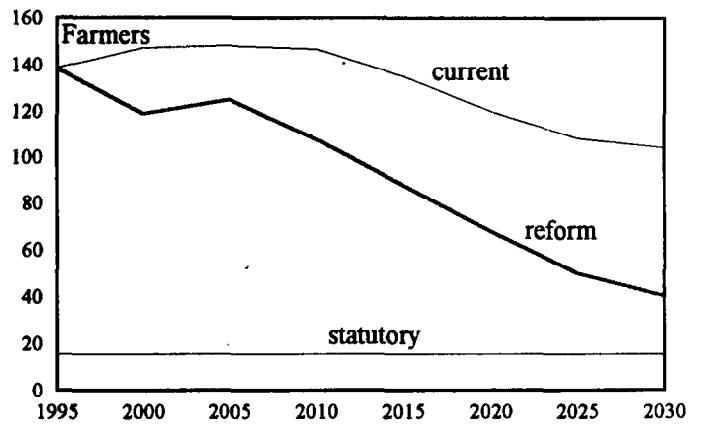
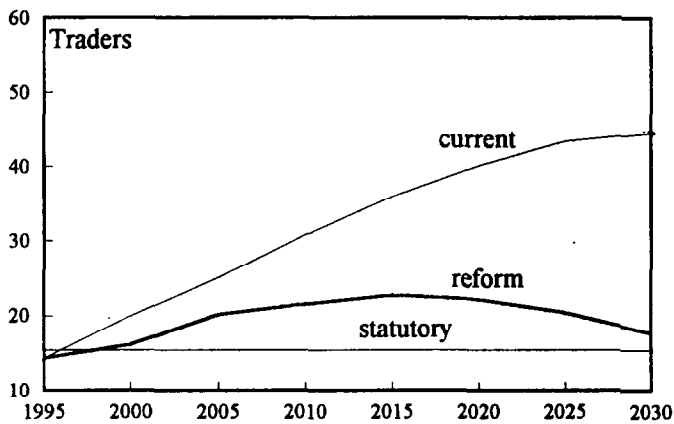
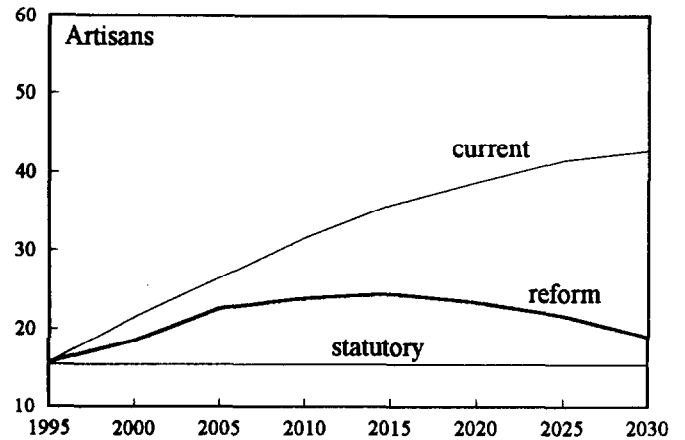
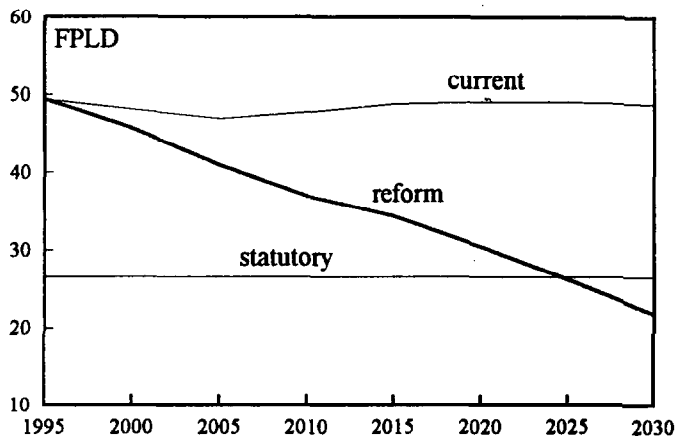
"balance" the pension funds by re-classifying some of their expenditures as welfare. While this would reduce pension spending in an accounting sense, it would not reduce overall government spending, and would provide only temporary relief to the social security system.

The paper examined the quantitative effects of four possible reform options: lowering the accrual rate; raising the retirement age for women; introducing an early retirement penalty; and reducing survivors' benefits. One thing that the simulations underscore is that there is no quick fix: in all cases, the effects of the measures on pension spending would be relatively limited in the next three to five years, and in some cases it would be negligible. On the other hand, some of the measures would generate substantial savings in the long term. The ideal package would contain a mix of some measures with immediate impact and some with a growing effect over time.

The simulations are based on a number of simplifying assumptions that must be kept in mind when evaluating the various reform options. First, it is assumed that these reforms are introduced in 1996 without any phasing-in arrangements. This tends to exaggerate the simulated impact of reforms such as raising the retirement age for women, which in practice are very likely to be phased in (as in 1992). On the other hand, in the case of early retirement penalties, it is assumed that the behavioral response of potential pensioners would be unaffected. This tends to underestimate the savings that such a measure would generate, at least initially.

It must finally be noted that the paper evaluated the current state of the Italian public pension system and examined the prospects and possible impact of various reform options from a rather narrow point of view: that of their financial aspects and implications. It did not examine a number of other aspects of the reform options, notably their effects on efficiency or income distribution. These aspects (the latter in particular) are very important in the debate for pension reform. A number of studies (such as Cannari & Franco 1990, and Franco & Frasca 1992) have examined the performance of the Italian public pension system on the level of poverty and income distribution. Careful consideration of these issues would be necessary for an informed decision on the reform of such an important part of the economic and social environment of the country.

Chart 14
Italy
Reform Options: Raising the Retirement Age for Women, Lowering the
Accrual Rate, and Introducing an Early Retirement Penalty



1/ Includes only the four main INPS funds.

Table 1. Italy: Proposals for Pension Reform

	De Michelis (1984)	Cristofori (1986)	Formica (1988)	Donat Cattin (1990)	Marini (1991)
Retirement age	65 for men and women	60 for men and women	65 for men and women	65 for men and women	65 for men and women
Contribution period required for minimum pension	20 years	20 years	20 years for men, 15 years for women	Unchanged (15 years)	Unchanged (15 years)
Assessed income	Last 10 years	Last 5 years	Last 10 years	Last 10 years	Last 10 years
Minimum contribution period for seniority pension	35 years		35 years	40 years	35 years
Indexation of benefits	To contractual wages, every three years		To contractual wages, every three years	To contractual wages	To actual wages

Source: Franco (1993a).

Table 2. Italy: Main Provisions Regarding Pension Benefits

	Minimum Retirement Age for Old Age <u>Pensions</u>		Minimum Years of Contributions for Seniority <u>pensions</u>		Assessed Income <u>1/</u>
	Male	Female	Male	Female	
(a) <u>Before</u> the 1992 reform					
Central government employees	65	65	20	15	Last wage
Other government sector funds	60	60	25	20	Last wage
FPLD	60	55	35	35	Average over last five years
Self-employed workers	65	60	35	35	Average over last ten years
(b) <u>After</u> the 1992 reform (full implementation)					
All workers	65	60	35	35	Whole career <u>2/</u>

Source: INPS (1993).

1/ Wages/earnings taken into account to determine level of pension benefits.

2/ The assessed income has been gradually changed from the average over the last 5, to that over the last 10 working years, for people who had already paid contributions for more than 15 years. It was extended to the 5 years before December 31, 1992, plus all the following working years for individuals who had contributed between 5 and 15 years. Finally, it was extended to earnings over the whole career for those who had been contributing for less than 5 years.

Table 3. Italy: Number and Total Expenditure on Pensions
by Category and Fund, 1992

	<u>Number of Pensions</u>		<u>Pension Expenditure</u>	
	In thousands	Percentage share	In Lit billion	Percentage share
Private sector	17,920.1	86.3	164,487.0	76.5
INPS	14,847.7	71.5	141,968.0	66.0
INAIL	1,394.0	6.7	6,889.9	3.2
Ministry of the Interior	1,299.4	6.3	9,636.5	4.5
Maritime Funds	5.4	--	40.2	--
Other	373.6	1.8	5,952.4	2.8
Public sector	2,835.0	13.7	50,438.6	23.5
Ministry of the Treasury ^{1/}	1,833.5	8.8	29,803.6	13.9
INAIL	18.2	0.1	125.5	0.1
Other	983.3	4.7	20,509.5	9.5
Total	20,755.0	100.0	214,925.7	100.0

Source: ISTAT (1994b).

^{1/} Since its creation in 1994, INPDAP has taken over most of the funds administered by the Treasury.

Table 4. Italy: Public Pension Systems: Some International Comparisons
of General Old-Age Benefit Schemes

	U.S.	Japan	Germany	France	Italy	U.K.	Canada
Retirement age (male/female)	65/60	60/60	65/65 <u>1/</u>	60/60	65/60	65/60	65/65
Minimum provisions	Guaranteed minimum	--	Social assistance	Guaranteed minimum	Guaranteed minimum	Social assistance	--
Assessed income	Career	Career	Career	Best 10	Career	Career	Career
Minimum contribution	10	25	5	10	20	Quarter of working life	10
Contribution period for full pension	35	40	40	37.5	35	50	40
Accrual factor (in percent)	Increases as income declines	0.75	1.5	1.75	2.0	0.4	0.5
Maximum replacement rate (in percent)	41	30	60	50	80	20	25
Indexation of benefits on	Prices	Prices	Wages	Wages	Prices	Prices	Prices

Source: Van Den Noord & Herd (1993).

1/ However, contributors affiliated with the system for 35 years and having 15 years of contributions may retire at 63.

Table 5. Italy: INPS Summary Economic Accounts

(In billions of lire)

	1989	1990	1991	1992	1993
<i>Social security accounts balances</i>					
Dependent workers	5,515	7,207	11,911	7,451	-221
FPLD	(-9,937)	(-10,722)	(-9,367)	(-14,604)	(-21,681)
Temporary benefits	(15,452)	(17,929)	(21,278)	(22,055)	(21,460)
Farmers	-6,556	-7,166	-7,672	-7,619	-9,434
Artisans	723	875	1,516	1,770	1,545
Traders	616	742	1,255	2,005	2,477
Other funds	-143	-392	252	-12	-199
Total social security balance	155	1,266	7,262	3,595	-5,832
<i>Welfare accounts balances</i>					
Balance	-56,077	-56,021	-55,392	-57,316	-53,745
Total INPS balance	<u>-55,922</u>	<u>-54,755</u>	<u>-48,130</u>	<u>-53,721</u>	<u>-59,577</u>
(in percent of GDP)	(4.7)	(4.2)	(3.4)	(3.6)	(3.8)
State transfers for welfare	46,017	46,107	46,772	49,211	45,841
Total INPS balance after state transfers for welfare	-9,905	-8,648	-8,620	-8,105	-13,736
<u>Memorandum items:</u>					
INPS balance--cash basis	-46,383	-54,024	-58,268	-60,671	-59,725
Cash state transfers	45,434	54,113	58,334	64,445	59,070
(in percent of GDP)	(3.8)	(4.1)	(4.1)	(4.3)	(3.9)

Source: Ragioneria Generale dello Stato, Ministry of the Treasury.

Table 6. Italy: INPS Temporary Benefits Accounts
(In billions of lire)

	1993
<hr/>	
Revenue	37,802
Contributions	31,914
Transfers from other funds	3,499
Income from property	2,309
Other	80
Expenditure	16,342
Ordinary Wage Supplementation Fund (CIG-0)	1,897
Ordinary unemployment benefits	2,998
Severance payments	236
Sickness and maternity benefits	4,132
Family allowances	1,908
Transfers to other funds	3,745
Other	1,426
Balance	21,460
(in percent of GDP)	(1.4)

Source: *Ragioneria Generale dello Stato*, Ministry of the Treasury.

Table 7. Italy: State Transfers to INPS 1/
(In billions of lire)

Year	Transfers		Total transfers
	From state budget <u>2/</u>	Cash advances from the Treasury account	
1971	1,344	-79	1,265
1972	1,144	897	2,011
1973	2,467	-171	2,296
1974	1,927	592	2,519
1975	1,202	2,921	4,123
1976	1,816	3,171	4,987
1977	3,300	2,031	5,331
1978	7,275	206	7,481
1979	3,114	3,301	6,415
1980	4,282	2,016	6,298
1981	6,983	6,915	13,898
1982	8,687	13,116	21,803
1983	9,132	14,818	23,950
1984	13,086	13,594	26,680
1985	13,294	18,910	32,204
1986	16,307	15,507	31,814
1987	30,880	2,941	33,821
1988	29,703	6,969	36,672
1989	30,044	15,390	45,434
1990	44,397	9,715	54,112
1991	39,799	18,535	58,334
1992	47,135	17,309	64,444
1993	42,191	16,879	59,070
1994 <u>3/</u>	48,000	18,800	66,800

Source: INPS.

1/ Cash transfers from the central government (*settore statale*).

2/ Transfer from the commitment budget (*bilancio di competenza*).

3/ Estimates.

Table 8. Italy: INPS Welfare Accounts

(In billions of lire)

	1989	1990	1991	1992	1993
Revenue	1,541	1,496	3,018	5,047	3,503
Contributions	956	950	1,913	3,572	2,771
Transfers from public sector agencies	340	325	491	694	230
Other (including transfers from other funds)	245	221	614	782	502
Expenditures	57,618	57,517	58,410	62,363	57,248
Pensions	28,912	30,534	33,415	35,144	28,819
Income maintenance (including CIG-S)	3,080	2,287	2,394	3,089	4,430
Family allowances	4,336	4,538	3,268	3,331	3,075
Cost of exemptions from social security contributions	17,902	17,472	16,592	16,689	16,995
Cost of social security contributions of early retirees	842	630	383	1,344	644
Cost of social security contributions of workers on CIG	827	619	810	1,070	1,759
Transfers to other funds	820	851	860	1,057	881
Other	899	586	688	639	645
Balance	-56,077	-56,021	-55,392	-57,316	-53,745
(in percent of GDP)	(4.7)	(4.3)	(3.9)	(3.8)	(3.4)
State transfers	46,017	46,107	46,772	49,211	45,841
Balance after transfers	-10,060	-9,914	-8,620	-8,105	-7,904

Source: *Ragioneria Generale dello Stato*, Ministry of the Treasury.

Table 9. Italy: Beneficiary and Transfer Ratios
(In percent)

	1995	2000	2005	2010	2015	2020	2025	2030
Beneficiary ratios								
FPLD	92.7	90.6	89.8	92.7	95.9	98.1	99.7	99.8
Artisans	51.4	63.1	71.4	80.7	88.9	94.7	99.8	102.0
Traders	51.5	62.3	69.7	78.7	86.1	92.2	96.4	99.0
Farmers	246.7	260.7	249.5	238.9	219.7	199.0	178.9	169.3
Transfer ratios								
FPLD	51.8	51.3	50.4	49.8	49.1	48.3	47.5	47.2
Artisans	32.8	36.4	39.2	41.1	42.0	42.4	42.8	42.8
Traders	29.1	34.1	38.2	41.1	43.5	45.1	46.3	46.8
Farmers	57.5	58.2	60.7	62.3	61.9	60.2	60.0	60.7

Source: INPS.

Table 10. Italy: Macroeconomic Assumptions
Underlying the INPS Projections

(Percentage change)

	1995	1996	1997	1998	1999	2000-10	2011-20	2021-30
Real GDP	2.7	2.8	3.1	3.2	2.0	2.0	1.7	1.5
Inflation	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Employment								
Dependent workers	0.4	0.5	1.0	0.4	0.4	0.4	0.2	--
Farmers	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5
Artisans	0.2	0.4	0.5	0.1	0.1	0.1	--	--
Traders	0.2	0.4	0.5	0.1	0.1	0.1	--	--
Real earnings								
Dependent workers	1.0	1.4	0.9	0.9	1.2	1.6	1.5	1.5
Farmers	2.7	2.8	3.1	3.2	2.0	2.0	1.7	1.5
Artisans	2.5	2.4	2.6	3.1	1.9	1.9	1.7	1.5
Traders	2.5	2.4	2.6	3.1	1.9	1.9	1.7	1.5

Source: INPS.

References

- Antichi, M. (1993), "Riflessioni sull'Equivalenza tra Contributi Previdenziali e Pensione", *Economia Pubblica*, November, pp. 501-506.
- Artoni, R. (1989), "La Spesa per Assistenza dell'INPS" in Ranci Ortigosa, E. (ed.), *La Spesa Pubblica per l'Assistenza in Italia*, Franco Angeli, Milano.
- Camera dei Deputati (1994), *Audizione del Ragionere Generale dello Stato Andrea Monorchio*, Camera dei Deputati, XI Commissione Permanente, 7 Settembre 1994.
- Cannari, L., and D. Franco (1990), "Sistema Pensionistico e Distribuzione dei Redditi", Banca d'Italia Temi di Discussione No. 137, Banca d'Italia.
- Castellino, O. (1994), "La Redistribuzione tra ed entro Generazioni nel Sistema Previdenziale Italiano", Documento di Lavoro 9/94, ISPE.
- CEIS (1994), *The Welfare State in Italy in the 90's*, Research Section on Problems and Systems of the Welfare State, University of Rome "Tor Vergata".
- CER (1993), *Rapporto 2/1993*, Centro Europa Ricerche.
- CER (1992), *Rapporto 2/1992*, Centro Europa Ricerche.
- Commission of the European Communities (1993), *Social Protection in Europe*, Commission of the European Communities.
- Ferrera, M. (1984), *Il Welfare State in Italia*, Il Mulino, Bologna.
- Franco, D. (1993a), "Il Sistema Pensionistico tra Provvedimenti di Emergenza e Riforme di Struttura", in L. Bernardi (ed.), *La Finanza Pubblica Italiana*, Franco Angeli, Milano.
- Franco, D. (1993b), *L'Espansione della Spesa Pubblica in Italia 1960-1990*, Il Mulino, Bologna.
- Franco, D., and F. Frasca (1992), "Public Pensions in an Ageing Society: the Case of Italy", in J. Mortensen (ed.), *The Future of Pensions in the European Community*, Centre for European Policy Studies, Brussels.
- Giarda, P., and G. Morcaldo (1993), "Nuovi Interventi sulla Spesa Pensionistica", Commissione Tecnica per la Spesa Pubblica, Osservazioni e Raccomandazioni No. 1, Ministero del Tesoro.
- Giarda, P., and G. Morcaldo (1991), "Il Sistema Pensionistico dei Dipendenti Statali", Commissione Tecnica della Spesa Pubblica, Osservazioni e Raccomandazioni No. 5, Ministero del Tesoro.
- Holzmann, R. (1989), "Pension Policies in OECD Countries: Background, Trends and Implications", *Journal of Public Policy*, 9(4), pp. 467-491.

INPS (1993), *Le Pensioni Domani*, Il Mulino, Bologna.

INPS (1991), *Rendiconti Generali dell'Anno 1991*, Vols. 1 and 2, INPS.

ISTAT (1993), *Annuario statistico italiano*, ISTAT.

ISTAT (1994a), *Statistiche della Previdenza, della Sanita' e dell'Assistenza Sociale*, ISTAT.

ISTAT (1994b), *Statistiche sui Trattamenti Pensionistici al 31 Dicembre 1992*, ISTAT.

OECD (1988c), *The Future of Social Protection*, Social Policy Studies No. 6, OECD.

OECD (1994), *New Orientations for Social Policy*, Social Policy Studies No. 12, OECD.

Orru', G., A. Morgante and T. Tafaro (1993), "La Legge Delega e i Decreti di Attuazione sulla Riforma delle Pensioni", Commissione Tecnica per la Spesa Pubblica, Ricerche No. 7, Ministero del Tesoro.

Van den Noord, P., and R. Herd (1993), *Pension Liabilities in the Seven Major Economies*, OECD Economics Department Working Paper No. 142, OECD.

World Bank (1994), *Averting the Old Age Crisis*, World Bank.