Chapter Title: Government Incentives and Household Saving in Italy

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5 Government Incentives and Household Saving in Italy

Tullio Jappelli and Marco Pagano

The Italian saving rate has exhibited large variability since World War II, with a trend decline in the past two decades, following very high levels in the fifties and sixties. Since tax incentives and social security arrangements are potentially important determinants of private and national saving, it is natural to consider whether changes in the tax code and in the social security system have contributed to the changes in the Italian saving rate. For instance, is the decline due to reforms in the taxation of capital income or to the transition from funded social security to a pay-as-you-go system? Alternatively, would the private saving rate have declined even further were it not for the tax incentives introduced in the eighties?

The empirical literature on the Italian saving rate is of very limited help in answering these questions. This paper describes the tax and social security developments that are relevant to household saving choices, to provide a framework for future research on the effects of government incentives to save in Italy.[1]

1. After the completion of this paper in August 1992. a number of reforms have reshaped several aspects of the Italian tax and social security systems. A real estate tax (*Imposta Comunale sugli Immobili* [ICI]) has been introduced for the first time and its proceeds devolved to local government. The tax on capital gains has been suspended. The social security system has become less generous. Over the next decade the minimum retirement age will be gradually raised from 60 to 65 years for men and from 55 to 60 for women; the minimum period of contribution will increase from fifteen to twenty years; the period of the working life on the basis of which pension benefits are computed (so far the last five years) will be gradually extended to the last ten years for the current employees and to the entire working life for employees hired after 1992; the degree of pension indexation has been reduced and contributions raised. Finally, private pension funds have been regulated, and employers' contributions to pension funds will gradually replace severance pay.

In section 5.1 we document the shifts in household portfolios in the past two decades. This is followed by a brief history and description of the present rules governing the tax treatment of capital income, the taxation of wealth, capital transfers, and capital gains, the integration of dividend taxation with the corporate income tax, and the tax treatment of interest on household debt (section 5.2). In section 5.3 we focus on the institutional arrangements that affect incentives to save for retirement, i.e., social security (section 5.3.1), private pension funds (section 5.3.2), and severance pay (section 5.3.3). In section 5.4 we describe the public incentives to hold life insurance policies that have been recently introduced into the Italian tax code and compute the excess return of a typical life insurance policy relative to the rate of interest on public debt.

5.1 The Household Balance Sheet

Throughout the postwar period the Italian national saving rate has been consistently above the OECD average. Italy's net national saving rate was 3.4 percentage points above the Group of Seven average in the sixties, 2 points in the seventies, and 1 point in the eighties (Dean et al. 1990). In all three periods, Italy ranked second only to Japan.

Another distinction of the Italian saving rate has been its variability, which has far exceeded that of most other industrialized countries. The net national saving rate rose from 7 percent in 1952 to 22 percent in 1961. The sixties registered high and relatively stable saving rates, ranging between 18 and 22 percent. The past two decades then witnessed a trend decline in saving, down to 9 percent of net national income in 1990 (see Guiso, Jappelli, and Terlizzese 1994).

In the past two decades, the composition of household net worth has changed considerably, as well. Table 5.1 shows that the share of housing and of nonresidential real estate declined by 12.2 percent over the 1975–89 period; conversely, the stock of durable goods and of net financial assets rose by 3.9 and 8.3 percent, respectively.

Table 5.2 indicates that, within the class of financial assets, households accomplished a massive portfolio shift from debt claims on banks and private companies to public sector debt. The sum of currency and deposits shrank from 62.1 percent of total household assets in 1975 to less than 40 percent in 1989. Private bonds declined even more steeply, from 8.2 to 3.1 percent. The mirror image of this decline in bank deposits and private bonds was the 10-fold increase of the share of government debt in household portfolios, from 3.2 percent in 1975 to 32.1 percent in 1989. Capital controls, in place until 1989, prevented Italian households from diversifying their portfolios away from public debt: this is witnessed by the minuscule share of foreign assets, which never exceeded 1.5 percent of total financial assets.

Other significant features of table 5.2 are Italian households' relatively small holdings of equities and their low borrowing, compared with most other

Table 5.1   **Composition of Household Net Worth, 1975–89**

	1975	1980	1985	1989
	Level (thousand billion current lire)			
Housing	322.1	913.9	1,807.5	2,365.3
Nonresidential real estate	29.0	74.5	87.1	111.7
Durables	43.1	143.6	335.6	520.1
Net financial assets	88.3	230.4	588.3	1,088.0
Net worth	482.4	1,362.4	2,818.5	4,085.1
Income	112.1	297.0	629.9	889.8
	As a % of Net Worth			
Housing	66.8	67.1	64.1	57.9
Nonresidential real estate	6.0	5.5	3.1	2.7
Durables	8.9	10.5	11.9	12.8
Net financial assets	18.3	16.9	20.9	26.6
Net worth	100.0	100.0	100.0	100.0
Wealth–income ratio	4.3	4.6	4.5	4.5

Source: Pagliano and Rossi (1992, tables 20 and 21).

OECD countries. The small share of equities reflects the thinness of the Italian stock market, even after the introduction of investment funds in 1984 and the stock market boom of 1985–86; the low level of household debt is due mainly to regulation, high enforcement costs, and the lack of substantial incentives to borrow (Jappelli and Pagano 1989, 1994). The high nominal interest rates of the seventies and early eighties placed an additional burden on debtors (due to the lack of indexed mortgage instruments) so that the share of household liabilities declined until the mid-eighties, not regaining the 1975 level until 1989.

Table 5.2 shows that most financial assets held by Italian households have short maturities (the average maturity of public debt was 3.5 years at the end of 1987). The only long-term saving instruments are those explicitly earmarked for retirement needs, i.e., life insurance, pension funds, and severance pay. Insurance policies and severance pay accounted for almost 20 percent of total financial assets in 1975, but declined to 11.3 percent in 1985 and to about 10 percent in 1989. But the data displayed in table 5.2 are a misleading indicator of the assets held to finance retirement consumption, because (i) the value of pension funds is omitted, (ii) the official figures for severance pay do not take into account that severance pay is partially indexed to the consumer price index, and (iii) the figure for insurance measures assets held by insurance companies against all insurance policies, not just life insurance, which is the only policy that can provide retirement income.

The estimates in table 5.3 overcome these measurement problems. The adjusted figures show that in Italy pension funds and life insurance policies form a tiny fraction of financial assets, in sharp contrast with most other industrial-

Table 5.2   **Composition of Household Financial Assets, 1975–89** (%)

	1975	1980	1985	1989
Assets				
Currency and deposits	62.1	60.2	45.8	39.3
Currency	6.8	5.4	3.8	3.3
Bank deposits	44.5	45.2	34.1	26.7
Postal deposits	8.2	8.0	5.6	6.4
Deposits at SCI[a]	2.6	1.6	2.3	2.9
Government bonds	3.2	13.2	26.8	32.1
BOT[b]	0.1	8.6	12.7	14.5
CCT[b]	—	2.3	12.0	10.7
Other government bonds[b]	3.1	2.3	2.1	6.9
Private bonds[c]	8.2	2.7	2.7	3.1
Investment funds[d]	—	—	2.2	3.1
Equities	5.3	7.0	9.5	9.9
Foreign assets	1.4	1.0	1.0	1.5
Insurance	6.6	5.7	4.9	
Severance pay	13.2	9.8	6.7	10.9[e]
Other assets	0.1	0.5	0.2	
Total financial assets	100.0	100.0	100.0	100.0
Liabilities				
Bank loans	39.9	56.4	58.4	53.9
SCI loans	56.5	37.8	34.7	31.9
Other liabilities[f]	3.7	5.9	6.8	14.2
Total liabilities	100.0	100.0	100.0	100.0
Liabilities/assets (%)	8.3	7.0	5.8	7.4

Sources: For 1975–85, Bank of Italy, "The Wealth of Italian Households, *Economic Bulletin* (English edition), no. 3 (1986); for 1989, Bank of Italy, *Annual Report,* Statistical Appendix (Roma, 1990), table aD29.

[a]Special credit institutions (SCI).

[b]BOT are treasury bills up to one-year maturity. CCT are floating-rate treasury credit certificates, 2 to 4 years in maturity indexed to BOTs; these certificates were introduced in 1977. Other government bonds include BTP (long-term government bonds), bonds issued by the PO Deposits and Loans Fund, bonds issued by local governments and by public sector enterprises.

[c]Bonds issued by private enterprises and by special credit institutions.

[d]Investment funds were authorized in 1984.

[e]For 1989 separate figures for insurance, severance pay, and other assets are not available.

[f]In 1989 this item also includes consumer credit extended by finance companies (see D'Alessio 1990).

ized countries. Only accrued severance pay entitlement accounts for more than a negligible share of household financial wealth, between 8 and 9 percent. The fact that private pension arrangements and life insurance wealth have such little attraction for Italian savers cannot be explained by lack of tax incentives: the tax treatment of both types of assets, and in particular of private pension funds, is quite favorable, as is documented in sections 5.3 and 5.4.

Table 5.4 completes the picture by providing information on the distribution

Table 5.3   **Pension Funds, Life Insurance, and Severance Pay**

Year	Pension Funds (1)	Life Insurance (2)	Severance Pay (3)	Financial Assets (4)
		Trillion Lire (end-of-period estimates)		
1980	—	—	40.6	—
1981	—	—	47.9	—
1982	—	—	55.9	—
1983	20	—	63.8	—
1984	—	9.6	73.2	—
1985	22.5	11.9	83.5	948
1986	—	15.0	95.3	—
1987	—	19.5	105.2	—
1988	40	24.7	115.1	1,467
		As a % of Household Financial Assets		
1985	2.4	1.3	8.8	100.0
1988	2.7	1.7	7.8	100.0

Notes: Col. (1)—no official statistics exist for pension funds. Sources are for 1983, Commissione tecnica per la spesa pubblica; for 1985, Banca d'Italia-IMI-INA (1986) estimate pension funds to be between 15 and 30 trillion lire; for 1988, Piatti (1990) estimates it to range from 35 to 45 trillion lire. In the table we report the midrange value for these two years.

Col. (2)—assets held by domestic and foreign insurance companies as a counterpart to life insurance policies sold to residents. Source is *Annuario ANIA* (Roma, 1990), table 13.

Col. (3)—the official estimates of severance pay do not take into account the indexation of severance pay. The figures in this table adjust for indexation and are drawn from Piatti (1990, table 5).

Col. (4)—these figures are obtained by replacing the official estimate of the value of severance pay with its adjusted estimate, and by adding the value of pension funds.

of wealth. We report data, by decile, on net worth, net real assets, financial assets, and bank deposits drawn from the 1989 Survey of Household Income and Wealth. The median net worth is about 103 million lire, while the median holding of financial assets and deposits are 10 and 9 million lire, respectively. The latter two values—approximately $8,000 in 1989—are considerably higher than in the United States, where Deaton (1992) reports that the median level of household liquid assets in the early eighties was less than $1,000. The difference between these numbers may reflect differences in the composition of household assets as well as in households' propensity to save.

In the next sections, we shall first provide an overall view of the tax treatment of capital income in Italy and then describe the specific provisions affecting retirement saving, i.e., the rules of the social security system and the tax provisions concerning private pension plans, severance pay, and life insurance.

5.2   Taxation of Capital Income

In Italy interest income is taxed at a flat rate or is tax-exempt, depending on the type of asset, and capital gains were effectively tax-exempt until 1990. The

Table 5.4   **Distribution of Household Wealth and Financial Assets in 1989**

Decile	Net Worth		Real Assets		Financial Assets		Deposits	
	V	S	V	S	V	S	V	S
Lowest	3,519	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Second	13,361	0.5	1,760	0.1	2,500	0.4	2,000	0.6
Third	40,000	1.7	14,665	0.4	5,000	1.3	4,000	1.9
Fourth	70,500	3.7	56,000	3.2	7,873	2.2	6,000	3.0
Fifth	102,751	5.9	84,000	5.8	10,000	3.7	9,000	4.4
Sixth	128,652	7.8	106,000	7.9	15,000	4.7	11,000	6.0
Seventh	162,000	9.6	135,810	9.9	21,000	6.7	16,000	8.3
Eighth	219,000	12.6	183,255	12.9	33,333	9.8	21,429	11.4
Ninth	331,000	17.9	288,000	18.4	61,250	16.9	38,067	17.0
Highest	—	40.5	—	41.8	—	54.7	—	47.5
Mean	149,711		122,364		27,348		16,624	
Coefficient of variation	1.46		1.50		2.75		2.00	
Gini coefficient	0.58		0.61		0.69		0.63	

Source: The numbers are based on the sample of 8,274 households of the 1989 Survey of House-hold Income and Wealth. We thank Luigi Cannari for providing us with the data. The median income in the survey is 29,057 thousand lire.

Note: V = value of the assets held by the poorest household in the decile. S = share of the assets held by the households belonging to the decile (sum to 100 except for rounding errors).

rate at which interest income is taxed is well below the average marginal tax rate on income from labor, and Italy features a much lower overall tax rate on income from capital than the United Kingdom, the United States, West Germany, and Sweden (Giannini 1989).

The foundations of the current tax system were laid by the 1974 tax reform act, which introduced two separate taxes on personal income: a progressive income tax levied at the national level (*Imposta sul Reddito delle Persone Fisiche* [IRPEF]), whose base is formed by income from labor and income from capital excluding interest income (i.e., dividends, profits, and rents); and a proportional tax on all kinds of income from capital except interest income, presently levied at a flat rate of 16.2 percent (*Imposta Locale sui Redditi* [ILOR]), whose revenue is collected by the central government and originally devolved on local governments, as well as a proportional tax on corporate income (*Imposta sul Reddito delle Persone Giuridiche* [IRPEG]) presently levied at a flat rate of 36 percent.

In table 5.5 we report the composition of tax revenues of the general government by main categories. In 1991 more than 50 percent of total revenues were raised in the form of direct taxes. The IRPEF alone represented one-third of total revenues, while IRPEG and ILOR accounted for roughly 5 percent of revenue. As shown in table 5.5, while taxes on capital income represent a sub-

Table 5.5   **Sources of Government Revenue^a (as a % of total revenues)**

	1980	1985	1991
Direct taxes	48.9	55.9	53.5
IRPEF	30.6	34.7	32.4
IRPEG	3.3	5.2	4.6
ILOR	5.5	5.9	5.5
Taxes on interest income	8.0	7.8	8.5
Deposits	—	7.0	4.0
Government bonds^b	—	—	3.2
Others	—	0.8	1.3
Withholding tax on dividends	—	0.5	0.6
Estate, inheritance, and gift taxes	0.3	0.2	0.2
Others	1.2	1.6	1.7
Indirect taxes	51.1	44.1	46.5
Total	100.0	100.0	100.0

Source: Bank of Italy, *Annual Report,* Statistical Appendix (Roma, various years), table aC6.
^{a}The figures exclude revenues of local governments and other government agencies. They also exclude direct taxes collected in Sicily.
^{b}Tax-exempt before 1986.

stantial source of revenue, the withholding tax on dividends and the tax on estates, inheritances, and gifts have always represented a minuscule share of revenue. The composition of interest taxes has changed considerably, the main reason being that taxation of interest on government bonds was introduced in 1986.

Table 5.6 displays the current tax brackets and those in place before the tax reform of 1989. It shows that the degree of progressivity of IRPEF has diminished and the number of tax brackets reduced in the past two decades by a series of reforms (in 1983, 1986, and 1989). In fact, the number of brackets dropped from 32 in 1976 to 7 in 1989, while the top marginal tax rate was lowered from 72 to 50 percent.

An important innovation of the 1989 reform was indexing tax brackets for inflation. This partially eliminated the fiscal drag built into the previous rate schedules, which had caused a substantial increase in the tax burden during the seventies and eighties: the ratio of IRPEF receipts to GDP had risen from 3.8 percent in 1975 to 7.6 percent in 1985, and its ratio to total tax revenues rose from 17 to 35 percent.

Dividends, income from unincorporated business, rents, imputed income from home ownership, severance pay, income paid by life insurance policies, and pensions are subject to IRPEF and, with the exception of pensions, to ILOR. All other income from capital (mainly interest payments) is excluded from the tax base of IRPEF: a flat-rate withholding tax is in fact levied on all nominal interest income.

The extent to which recipients of capital income succeed in evading taxes is

Table 5.6   **Marginal Tax Rates on Labor Income (%)**

1976–82		1983–85		1986–88		1989–90[a]		1991[a]	
Bracket[b]	Rate	Bracket[b]	Rate	Bracket[b]	Rate	Bracket[b]	Rate	Bracket[b]	Rate
≤3	10	≤11	18	≤6	12	≤6.4	10	≤6.8	10
3–4	13	11–24	27	6–11	22	6.4–12.7	22	6.8–13.5	22
4–5	16	24–30	35	11–28	27	12.7–31.8	26	13.5–33.7	26
5–6	19	30–38	37	28–50	34	31.8–63.7	33	33.7–67.6	33
6–7.5	22	38–60	41	50–100	41	63.7–159.1	40	67.6–168.8	40
7.5–9	25	60–120	47	100–150	48	159.1–318.3	45	168.8–337.7	45
9–11	27	120–250	56	150–300	53	>318.3	50	>337.7	50
11–13	29	250–500	62	300–600	58				
13–15	31	>500	65	>600	62				
15–17	32								
17–19	33								
19–22	34								
22–25	35								
25–30	36								
30–35	38								
35–40	40								
40–50	42								
50–60	44								
60–80	46								
80–100	48								
100–125	50								
125–150	52								
150–175	54								
175–200	56								
200–250	58								
250–300	60								
300–350	62								
350–400	64								
400–450	66								
450–500	68								
500–550	70								
>550	72								

[a]In March 1989 tax brackets were indexed to the cost of living starting in 1990.
[b]Brackets are determined by annual income in millions of lire.

hard to gauge. Although there is a common perception that Italy has a significant hidden or underground economy, no estimates exist for the share of capital income that escapes taxation because it is not reported to the tax authorities.[2]

2. Various methods for estimating the size of the hidden economy have been proposed (Marrelli 1989). Visco (1983) evaluates the difference between earned income reported on tax returns and wage income from the national accounts at about 10 percent for employees and 35–40 percent for the self-employed. Estimates based on the difference between the labor force participation rate in Italy and in other Western countries range from 10 to 25 percent (Marrelli 1989).

5.2.1   The Taxation of Dividends and Corporate Taxation

Until 1974 individuals could choose between two regimes of dividend taxa-
tion: (i) let dividends be part of the income tax base and then be taxed at the
personal income tax rate (which ranged from 10 to 82 percent), or (ii) pay a
flat 30 percent tax rate—*cedolare secca* (final schedule withholding tax). In
either case, there was no tax credit for corporate taxes. The 1974 reform elimi-
nated the second regime: since then dividends must be included in the income
tax base. At the same time, the previous system of corporate taxation was re-
placed by the two proportional income taxes mentioned above: a company tax
levied at the national level (IRPEG) and the so-called local tax (ILOR). The
tax rate for ILOR was the same as for individuals.

The tax bases for the two taxes were virtually the same, and initially ILOR
was not deductible from the tax base of IRPEG. The IRPEG tax rate was 25
percent, while for ILOR, initially, each local authority was given the right to
set its own tax rate, ranging between 9.4 and 14.7 percent. However, after 1977
ILOR was levied at a uniform tax rate of 15 percent and the proceeds trans-
ferred to the central government. The resulting corporate income tax was 40
percent.

In 1978 two major changes occurred. First, an imputation system was intro-
duced for dividends and phased in over a two-year period. Full credit for
IRPEG was allowed against the liability deriving from the personal income tax
(IRPEF), although no credit was allowed for ILOR. Second, ILOR became
deductible from IRPEG at the corporate income tax level. As a result, the cor-
porate income tax rate fell to 36.25 percent.

From 1983 to 1992, IRPEG and ILOR were raised to 36 and 16.2 percent,
respectively, so that the overall corporate tax rate rose to 46.36 percent. The
IRPEG (but not the ILOR) has remained fully deductible from the personal
income tax on dividends since 1983.

The average marginal tax rate on dividend recipients was estimated to be
43.6 percent in 1980 and 49.1 percent in 1985 (Alworth and Castellucci
1993).[3] Both estimates are based on tax return information on the distribution
of dividend income and are obtained by multiplying the value of reported divi-
dend income by the marginal tax rate which applies to each tax bracket. The
corresponding value for 1990 was estimated to be 46.1 percent, assuming that
the distribution of share ownership remained the same as in 1981, but allowing
for the drift in tax brackets associated with inflation.

5.2.2   Interest Income

The tax rates on nominal interest income differ according to the type of
investor, the type of financial instrument, and its issuer, and they have varied

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3. A similar figure is reported by Giannini (1989), who estimates the 1980 average marginal tax
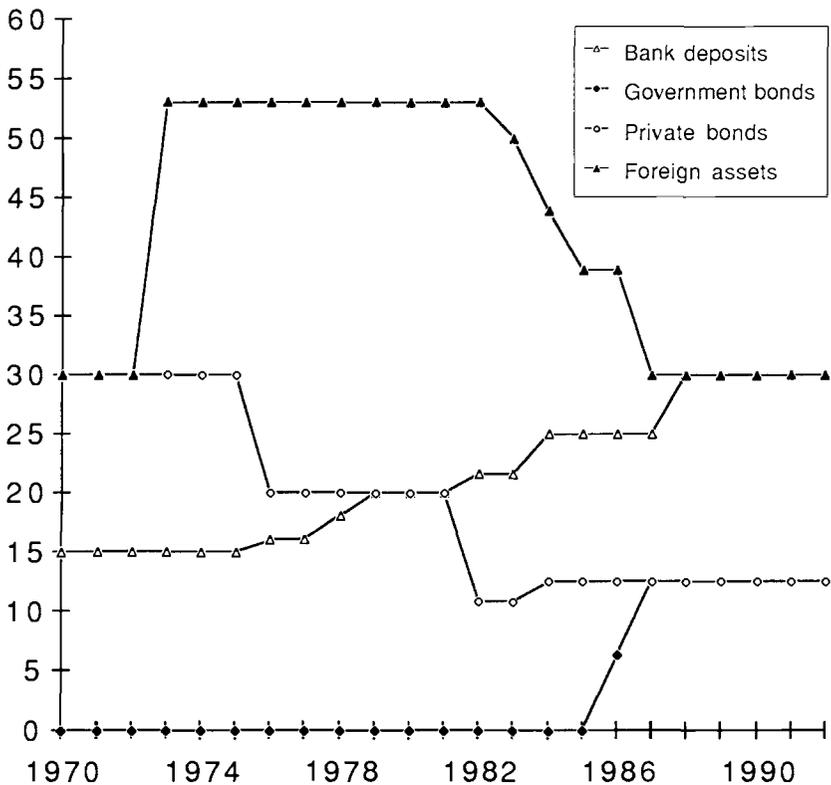rate on dividends to be 43.5 percent.

Fig. 5.1   Tax rates on interest income, by main asset categories: 1970–92

considerably over time. Figure 5.1 displays tax rates on interest income for four main asset categories; the appendix traces the past and current values of all tax rates on interest from financial assets. At present, all deposits and postal saving accounts are taxed at 30 percent, while public and private debt instruments are taxed at 12.5 percent (except for CDs with less than 18 months of maturity, which are taxed at 25 percent). Foreign assets have always been taxed at higher rates than domestic securities, reflecting restrictions on capital mobility. These restrictions have been partly removed in recent years, and the tax rate on foreign assets has accordingly declined to the current 30 percent level, down from 50 percent in 1984.

For comparison with the discussion in the previous paragraph, note that the marginal tax rate on interest income was estimated to be 19.7 percent in 1980, 22.5 percent in 1985, and 16.7 in 1990 (Alworth and Castellucci 1993), about half of that on dividends.[4]

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4. These values were computed by weighting the tax rate that applies to each debt instrument by the respective ownership shares and allowing for indirect lending through the banking system via purchase of securities issued by companies and special credit institutions.

5.2.3   Taxation of Wealth and Capital Transfers

In Italy there are no taxes on personal financial wealth. The only wealth tax, other than on estates, inheritances, and gifts, which will be discussed below, is a capital gains tax on nominal price increases of real estate. The tax, introduced in 1974 and considerably revised in 1980, is paid only when property is transferred—whether through a sale, a bequest, or a gift—and is called INVIM (*Imposta sull'Incremento del Valore degli Immobili*). In contrast with ILOR, a local tax only in name, INVIM is truly a local tax, providing about 15 percent of municipal tax revenues.

The tax base of INVIM is the difference between the current price and the price recorded at the time of the previous ownership transfer. Until recently this value was assessed by the tax authorities. However, since this method of assessment often led to lengthy disputes that had to be settled by special tax courts, in July 1986 a new rule was introduced: the price declared by the parties cannot questioned by tax authorities if it equals or exceeds the value that is imputed to real estate of that class. This imputed value equals the corresponding statutory rent, or *rendita catastale,* multiplied by 100 (if the initial value refers to the period before 1963, the *rendita catastale* is multiplied by 35).

As shown in the top panel of table 5.7, the tax is progressive: rates vary from 5 to 30 percent, and the tax base depends on the initial value of the property and the number of years that it was held. Suppose that a house bought for 10 million lire in 1980 is resold in 1990 for 220 million lire. The total tax base is the price increment of 210 million lire. In the second panel of table 5.7 we compute the tax liability (units are million lire). The figures in the second column sum to 210 million lire, i.e., to the price increment. The overall tax liability—the sum of the figures in the third column—is 36 million lire, corresponding to an average tax rate of 17.1 percent and a marginal tax rate of 30 percent.

The average and marginal tax rates are so high because in this example the price increase is very high (2,200 percent) and the holding period is relatively short (10 years). In fact the tax is structured so that the marginal tax rate is an increasing function of the property's price increment and a decreasing function of the holding period. The bottom panel of table 5.7 shows that the marginal tax rate can be as low as 5 percent for a house with a relatively small price increase and a relatively long holding period, and as high as 30 percent for large price increases and short holding periods. For instance, if the price increase is 100 percent and the holding period is longer than 5 years, the marginal tax rate is 5 percent, but the same price increment is subject to a marginal tax rate of 15 percent if the house is held for only one year.

Inheritances and gifts are the only other cases in which taxes are levied on wealth, rather than on income. In contrast to all other OECD countries, which have either an estate tax—where the tax base and tax rate depend on the amount transferred by the decedent—or an inheritance tax—where the tax base and tax rate depend on the amount received by the beneficiary—Italy has both, inheritance taxes being levied only on legacies outside the immediate

Table 5.7   INVIM

Taxation of Capital Gains on Real Assets (INVIM)

Tax Rate	Portion of the Price Increment Taxed
5	20% of the initial value × number of years asset was held
10	30% of the initial value × number of years asset was held
15	50% of the initial value × number of years asset was held
20	50% of the initial value × number of years asset was held
25	50% of the initial value × number of years asset was held
30	any residual part of the price increment

An Example of INVIM[a]

Tax Rate	% × Initial Value × No. of Years	Tax Liability (million lire)
5	20% × 10 × 10 = 20	5% × 20 = 1
10	30% × 10 × 10 = 30	10% × 20 = 2
15	50% × 10 × 10 = 50	15% × 50 = 7.5
20	50% × 10 × 10 = 50	20% × 50 = 10
25	50% × 10 × 10 = 50	25% × 50 = 12.5
30	the residual 10 million lire	30% × 10 = 3

Marginal Tax Rates of INVIM

Holding Period (years)	% Increase in the Price of Real Estate					
	20	30	100	200	350	500
1	0.05	0.10	0.15	0.25	0.30	0.30
2	0.05	0.10	0.10	0.15	0.25	0.30
5	0.05	0.05	0.05	0.10	0.15	0.15
8	0.05	0.05	0.05	0.10	0.10	0.15
10	0.05	0.05	0.05	0.05	0.10	0.10
15	0.05	0.05	0.05	0.05	0.10	0.10
20	0.05	0.05	0.05	0.05	0.05	0.10

[a]In this example, the property is assumed to be worth 10 million lire in 1980 and sold for 220 million lire in 1990.

family. These taxes were first introduced in 1972, replacing earlier legislation. Tax brackets and tax rates for both types of taxes have been changed frequently in the past 20 years, but the general principles on which their provisions are based have remained the same.

Table 5.8 describes the current system of inheritance and estate taxes. Gifts are taxed in a similar way. The general principle is that of progressive taxation; as with IRPEF, the top marginal tax rates were considerably reduced in the seventies and eighties. Spouses and direct descendants are subject only to the estate tax. Relatives and other recipients are also subject to the inheritance tax, with tax rates that vary among classes of beneficiaries. Life insurance policies, social security benefits, and public debt are tax-exempt.

Table 5.8   **Marginal Tax Rates on Estates, Inheritances, and Gifts: 1992**

Tax Bracket (million lire)	Marginal Estate Tax (%)	Marginal Inheritance Tax (in addition to estate taxes; %)		
		Brothers, Sisters, Nephews, and Nieces	Other Relatives	Other Beneficiaries
<10	—	—	—	—
10–100	—	—	3	6
100–250	—	3	5	8
250–350	3	6	9	12
350–500	7	10	13	18
500–800	10	15	19	23
800–1,500	15	20	24	28
1,500–3,000	22	24	26	31
>3,000	27	25	27	33

Note: The spouse and direct descendants of the transferor are exempt from inheritance tax. In January 1992, the threshold for estate tax was 250 million lire. The threshold for inheritance tax varies and is graduated on the three classes of beneficiaries: 100 million lire for brothers, sisters, nephews, and nieces, 10 million lire for other relatives and for other beneficiaries. The tax regime for gifts is the same as that for bequests.

As was shown in table 5.5, inheritance, estate, and gift taxes have always been a minor source of government revenue (0.2 percent of total tax revenues). In particular, the revenue from gift taxes is extremely low (0.01 percent of total revenues), reflecting in part the difficulty of aggregating gift taxes and estate taxes (OECD 1988), and in part the ease with which taxes on gifts are evaded.

5.2.4   Capital Gains on Equities

Until 1990, as a practical matter, capital gains on equities were tax-exempt, although in principle they were subject to general income tax if the relevant transactions were undertaken with "speculative intent." However, as the definition of speculative intent was not objective and the burden of proof lay with the tax revenue service, no tax on capital gains on equities was effectively levied.[5]

After a rather confused transition between September 1990 and March 1991, a system was introduced according to which investors can choose one of two tax regimes. Under one regime, capital gains are taxed at a flat 25 percent, and losses can be deducted from taxable income for the subsequent five years. Alternatively, investors can pay a proportion of the resale value of their shares, irrespective of the realized capital gain; this proportion is set each quarter by

5. There were exceptional cases, however, where speculative intent was presumed by the tax code. The exceptions were the sale of shares held for less than five years in the following cases: until 1984, the sale of unlisted shares of real estate companies; between 1984 and 1990, the sale of more than 2 percent of the value of listed companies, more than 10 percent (5 percent after 1987) of unlisted companies, and more than 25 percent (15 percent after 1987) of unincorporated companies.

the Board of the Stock Exchange Brokers, and in no case can it be less than 0.3 percent or higher than 1.05 percent. The second regime can be chosen only for transactions involving relatively small volumes of shares: less than 2 percent of the share value of listed companies (less than 5 percent of the equity value of unlisted companies and less than 15 percent of unincorporated companies). Each year taxpayers must opt for one of the two rules and may not alter their choices for the whole year.

If shares are held by an investment fund, the tax regime is totally different: the income distributed to unit holders is tax-exempt, but the net worth of the investment fund is subject to a tax of 0.25 percent.

5.2.5   Tax Treatment of Household Liabilities

As was shown in table 5.2, one of the striking facts about the Italian economy is the extraordinarily low level of household borrowing. There are a number of reasons for this. The regulation of the banking industry and the costs of judicial enforcement of loan contracts have limited the availability of credit to households (Guiso et al. 1994; Jappelli and Pagano 1994). Another reason for the limited stock of household debt is the lack of substantial tax incentives, either for personal credit or home mortgage credit.

In some countries, such as Sweden and the United States until the tax reform of 1986, interest payments on consumer credit are tax-deductible. No such privileged treatment for consumer credit and personal loans is given to Italian households. In 1980–85 the ratio of consumer credit to personal consumption expenditures in Sweden was on average 17 times higher than in Italy, and in the United States it was 10 times higher (Jappelli and Pagano 1989). It is hard not to relate these huge differences in the personal credit market, at least partly, to the disparate tax treatment.

The other area in which households often benefit from tax deductions is mortgage loans for home purchase. In Italy, however, direct government intervention in housing finance is limited, and tax incentives have been reduced over time. Until 1976 all interest payments were tax-deductible; in 1976 a yearly ceiling of 3 million lire was set (raised to 4 million in 1980). But the deductibility of interest payments was abolished in 1990, for all but first-home buyers. In most European countries, and in the United States, deductions are more generous (EC Mortgage Federation 1990).

Other incentives to housing finance had been provided by a law enacted in 1984 and abrogated in January of 1991, offering loans at subsidized interest rates: the rate was inversely related to household income and ranged from 5.5 to 13 percent. The law set stringent eligibility requirements: the head of the household had to be under 45 years old, employed continuously for at least two years, and not already a homeowner. The maturity of the subsidized loan was 20 years, and the loan could finance up to 75 percent of the value of the house. However, the mortgage could not exceed 60 million lire, about twice the average household income, and the house could not be resold before the mortgage was repaid.

5.2.6   Summary

The overall picture of the taxation of capital income is one of relatively favorable treatment of interest income, compared to labor income and dividends, and of strict provisions on the deductibility of interest on household liabilities. Compared with the tax regime of the early seventies, tax rates on most forms of capital income have been raised considerably, while the deductibility of mortgage interest has been restricted. Government bonds, exempt until 1986, are now taxed; the tax rates on deposits have doubled, and since 1990 capital gains have been taxed more severely. The only assets for which the tax burden has eased are some private bonds and foreign assets, which traditionally have been a small share of households' portfolios, as was shown in table 5.2. Moreover, as was shown in figure 5.1, rates on government bonds and private bonds have converged to 12.5 percent and those on foreign assets and bank deposits to 30 percent, indicating an effort to reduce the substantial tax distortions that affected the portfolio choices of Italian households in the seventies.

5.3   Pension Plans and Retirement Saving

Social security provisions, pension arrangements, and the rules determining severance pay (*indennità di fine rapporto*) are generally held to be key determinants of the national saving rate.[6] However, very few studies have investigated how Italian national saving has responded to changes in the social security system, and none has analyzed the impact on saving of the tax treatment of private pensions and of the rules concerning severance pay.

As shown in table 5.9, social security benefits represent a large share (55 percent) of the income of households with retired heads. On average, an additional 25 percent of income is provided by labor earnings, and 10 percent by imputed income from housing. Interest income accounts for only 10 percent of the income of retirees, in the form of either financial wealth (4.0 percent) or other capital income (5.5 percent). These figures already show that voluntary accumulation schemes such as pension funds represent a fairly small source of income for the elderly. As will be seen below, the main reasons are that in Italy social security provides relatively generous benefits and that severance pay has a far more important role than in other industrialized countries.

5.3.1   Social Security

Until 1952 the Italian social security system was fully funded. Starting in that year, the government set minimum pensions, gradually extended compul-

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6. Replacing a funded social security system with a pay-as-you-go system reduces national saving (Feldstein 1974) unless people fully discount the implied burden of future social security contributions (Barro 1974). Public policy also affects national saving through tax incentives to private pension funds and to deferred workers' compensation (severance pay). These incentives increase the present discounted value of retirement income; whether they induce young people to

Table 5.9   **Income Sources of Households with Retired Head (thousand 1987 lire)**

Age Group	% of Households	Social Security	Labor Income	Income from Financial Wealth	Other Income from Capital	Imputed Income from Housing	Total
≤40	1.1	5,629	13,243	246	197	2,637	23,941
		(25.6)	(60.3)	(1.1)	(0.9)	(12.1)	(100.0)
41–50	2.3	7,698	12,715	624	622	1,843	23,502
		(32.8)	(54.1)	(2.7)	(2.6)	(7.8)	(100.0)
51–55	4.5	9.653	11,441	1,308	881	2,082	25,365
		(38.1)	(45.1)	(5.2)	(3.5)	(8.2)	(100.0)
56–60	11.9	11,104	8,669	1,019	674	2,310	23,776
		(46.7)	(36.5)	(4.3)	(2.8)	(9.7)	(100.0)
61–65	19.3	12,034	5,089	998	1,021	2,310	21,452
		(56.1)	(23.7)	(4.6)	(4.7)	(10.8)	(100.0)
66–70	22.4	12,358	5,750	848	1,478	2,177	22,611
		(54.7)	(25.4)	(3.8)	(6.5)	(9.6)	(100.0)
71–75	16.6	10,818	3,104	820	1,314	2,006	18,062
		(59.9)	(17.2)	(4.5)	(7.3)	(11.1)	(100.0)
>75	22.0	10,030	1,829	444	1,000	1,497	14,800
		(67.8)	(12.4)	(3.0)	(6.8)	(10.1)	(100.0)
All retirees	100.0	11,088	5,172	814	1,102	1,992	20,168
		(55.0)	(25.6)	(4.0)	(5.5)	(9.9)	(100.0)

Source: Cannari and Franco (1990, table 7).
Note: The numbers in parentheses are percentages of total income in each age group.

sory contributions to farmers and the self-employed, and supplemented the system with unfunded social security benefits. However, one key principle of funded systems was retained: pension benefits were still proportional to contributions. Thus, between 1952 and 1968, the social security system was partly unfunded.

The link between contributions and benefits was severed in 1969, with three major innovations. First, benefits were made proportional to the number of years of contributions and to average earnings over the three years preceding retirement. Second, the system became entirely pay-as-you-go: anyone more than 65 years old was entitled to a "social pension," irrespective of contributions during working life. Third, the maximum pension rose to 80 percent of the last salary, and benefits were indexed to the cost of living.

The seventies witnessed a series of reforms relaxing the eligibility criteria. This led to rapid growth in social security benefits, from 7.5 percent of GDP in 1970 to 10.2 percent in 1980 and 13.9 percent in 1990. In 1975 the indexation system was changed: minimum pensions were indexed to the earnings of employed workers, leading to automatic increases in the real value of benefits. As the increase in contributions did not keep pace, the result was a growing social security deficit (Rossi and Visco 1994).

Currently, the eligibility requirements for pension benefits are: making contributions for 35 years or making contributions for a minimum of 15 years and being over age 55 for women and age 60 for men. For all private sector employees, yearly benefits are determined by $0.02nS$, where n is the number of years of contributions (maximum 40) S is average yearly salary over the 5 years before retirement, adjusted for the increase in the cost of living, and 0.02 represents the yearly accrual rate.[7] In 1988, there was a maximum pension of 33.5 million lire after 40 years of contributions, corresponding to a yearly salary of 41.9 million lire. In 1989 the maximum pension was increased by 1.5 percent for earnings between 41.9 and 55.6 million lire, 1.25 percent between 55.7 and 69.5 million, and 1 percent above 64.5 million lire. In 1990 the social pension, or old-age benefit to poor people over 50 years of age without contributions, was 6 million lire.

The degree of indexation of retirement benefits is inversely related to their amount. Pensions up to twice the minimum are fully indexed to the cost of living. Indexation falls to 90 percent for pensions between 2 and 3 times the minimum, and to 75 percent for pensions over 3 times the minimum. Social security contributions equal 25.15 percent of gross salary, 7.15 percent being contributed by the employee and 18 percent by the employer. Benefits are taxed at the general progressive income tax rate.

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save less or more for retirement is not clear, because this depends on the relative strength of income and substitution effects.

7. For public employees, S is equal to the last yearly salary.

This brief account highlights the particularly high benefits and broad eligibility criteria of the Italian social security system. In most other OECD countries, social security benefits are lower, either because they are unrelated to earnings history, or because only a fraction of the benefits is so related, as in the United Kingdom. And where benefits are proportional to past salaries, eligibility requirements and pension award formulas are less generous than in Italy: (i) minimum retirement age is higher, (ii) pension benefits are not computed on the basis of the last five years' earnings but on the basis of the last 10 (France) or the entire career (Germany and Belgium), (iii) the accrual rate ranges from 1.33 percent in Belgium to 1.9 percent in Austria, compared to 2 percent in Italy, (iv) the maximum pension as a fraction of salary is lower everywhere, except Germany, (v) benefits are indexed to the prices, rather than to salaries as in Italy, and (vi) the rules concerning double pensions and benefits paid to survivors are stricter than in Italy.

As a result of these differences, in 1985 the ratio of social security benefits to the yearly salary of men with 40 years of contributions was 80 percent in Italy, compared to 60 percent in Germany, 55 percent in Belgium, 50 percent in France, and 25 percent in the United Kingdom (CREL 1990, 62).

The increasing generosity of Italian eligibility rules and award formulas is indicated by the rise in the ratio of the average retirement pension to the average salary from 26 percent in 1960 to 44 percent in 1987. According to macroeconomic evidence reported by Rossi and Visco (1994), the increased benefits paid by the social security system have been perceived by Italian households as an increase in social security wealth and have been a key determinant of the reduction in the private saving rate.

However, this very increase in benefits and the rapid aging of the Italian population may foster the perception that the current system cannot be sustained indefinitely. If so, perceived social security wealth is lower than the present discounted value of the net benefits implied by the rules of the current regime (Castellino 1986). Evidence of this is provided by Brugiavini (1987), who computes a measure of social security wealth using the 1984 Survey of Household Income and Wealth and finds that pension wealth is only a very imperfect substitute for private net worth. She suggests that increased pension benefit coverage may have had only a small impact on saving because people anticipate an increase in future contributions or a decrease in pension benefits.

In fact, the unsustainability of current social security arrangements is recognized by a number of studies. Franco et al. (1994) apply the method of generational accounting proposed by Auerbach, Gokhale, and Kotlikoff (1991) to the Italian case. This method measures how much present generations are expected to pay on net to the government over their remaining lifetimes. The social security system is found to be a critical factor in the huge generational imbalance of Italian fiscal policy, an imbalance that is unsustainable under the current fiscal regime. The National Institute for Social Security (INPS 1991) projects that the equilibrium social security tax rate (the ratio of total pension

benefits to total income subject to pension contribution) will rise from 39.5 percent in 1990 to 45 percent in 2010. Similarly, the State Accounting Office (Ragioneria Generale dello Stato 1991) estimates this rate at 48 percent in 2010 and 57 percent in 2025.

These alarming figures indicate the urgency of reform: current proposals contemplate raising the retirement age by five years for both men and women, reducing benefits (especially maximum pensions), and increasing contributions.

5.3.2   Private Pension Funds

In contrast with the universal coverage of the social security system, private pension funds in Italy have always been minuscule, despite extremely favorable tax treatment. People are not allowed to join a pension fund as individuals. Participation in a private pension fund is possible only by explicit contractual arrangement between a group of workers or a union and a firm or group of firms. All the major Italian pension funds are defined-contribution rather than defined-benefit plans.

Guerra (1991) reports that in 1990 there were about 300 private pension funds, mainly serving employees of insurance companies and banks. In recent years pension funds have been set up also by some large corporations, such as IBM, ENI, Olivetti, Montedison, and FIAT. As was shown in table 5.3, the total outstanding value of pension funds was 40 trillion lire in 1988, or 4.5 percent of GDP. These funds serve about 400,000 workers, only 2 percent of the employed workers, by far the smallest proportion in any major OECD country (CREL 1990).

Workers' and employers' contributions to private pensions are fully tax-deductible, regardless of amount. Taxes are levied when the pension is cashed, either as an annuity or as a lump sum payment. In the former case, only 60 percent of the pension is considered part of the recipient's taxable income for income tax purposes. In the latter case, the lump sum payment is subject to separate taxation, like severance pay (see below). Since 1988 the tax base has been the difference between the lump sum payment and the sum of the worker's contributions, up to contributions of 4 percent of yearly earnings.

Pension funds are allowed to set their own rules on investment policy, the age at which benefits are payable, and treatment of withdrawal, death of the employee, layoff, and resignation. In most cases the portfolio of pension funds is formed by securities and real estate. Early withdrawal is generally possible, though sometimes is penalized. A study by Piatti (1990) indicates that Italian pension funds suffer from several limitations as savings instruments: (i) disparities among statutory regulations, (ii) nontransparency of investment policies, partly due to their defined-contribution nature, (iii) variable tax treatment of their capital income, depending on their legal nature and on their investment policy.

5.3.3 Severance Pay

Severance pay is a far larger component of household lifetime income in Italy than in most other countries. The size of the fund that firms accumulate to face their severance pay liabilities can be inferred from national account flow data on allocations and withdrawals. Castellino (1973) estimated the value of this fund at the end of 1972 in the range of 6.5 to 9.5 trillion lire, i.e., between 8.1 and 11.9 percent of GDP. As was shown in table 5.3, in 1988 it amounted to 115 trillion lire, 10.5 percent of GDP.

Initially, severance pay was intended to insure the employee against the risk of dismissal, but it gradually evolved into a form of deferred compensation, irrespective of the cause of termination of employment: the employee is entitled to it whether he retires, is laid off, or quits.

By law, the employer must pay a fraction of the wage bill into a fund, from which employees cannot draw until the termination of their employment (with exceptions noted below). Since 1982, severance pay has been computed as 7.4 percent of gross yearly salary for each year worked.[8] Severance pay is indexed and increases each year by $0.015 + 0.75\,\pi$, where π is the rate of change of the consumer price index. This implies that the worker's real return on the fund is negative for inflation rates above 6 percent, which has been the case in Italy since the law has been in force, except for 1986–88. Until 1982 the severance pay of each worker was effectively indexed to the rate of change of his nominal wage, so as to guarantee a positive real return.

Severance pay is rather illiquid and can be regarded as an example of forced saving in favor of firms. Workers can use part of their severance pay only for exceptional medical expenses or for the purchase of a first dwelling (i.e., the first house ever bought in the city of residence). Withdrawal is allowed only once during the employment contract, and only for a small fraction of each company's work force at any given time.

Severance pay enjoys a double tax advantage. First, there is a deduction from the tax base, which is determined by $P - nA$, where P is severance pay, n is the number of years of employment, and A is a constant allowance (equal to 500,000 lire in 1988). Second, the tax rate is substantially lower than the corresponding personal income tax rate would be: namely, it is the average tax rate corresponding to an income of $12P/n$. For workers with sufficiently high seniority, this is lower than their general income tax rate.

5.4 Life Insurance

Italian households hold very little wealth in the form of life insurance policies: until 1985 life insurance premiums hovered around 0.3 percent of GDP, a proportion which doubled in the late eighties, following a partial deregulation

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8. Before 1982 this percentage was different for different sectors and occupations.

of the insurance market and the introduction of tax incentives. Nevertheless, at the end of 1987, Italy ranked twenty-third in the market for life insurance among OECD countries. Of the two forms of contracts—annuities and life insurance—the former is virtually nonexistent.

The number of pure annuity contracts ranged between 6,000 and 10,000 in the eighties (0.1 percent of the population over age 65), one-twentieth of the figure in the United States, where 2 percent of the elderly hold annuities (Friedman and Warshawsky 1990). Fornero (1986) suggests that the rarity of pure annuities is explained by the absence of tax incentives. Life insurance contracts are more popular. In 1988 they numbered 800,000. The corresponding reserves of the insurance companies were 24.7 trillion lire in 1988, 1.7 percent of GDP (see table 5.3).

Despite the partial liberalization of 1986, regulation in the life insurance industry remains pervasive. Guiso et al. (1994) report that three main factors still severely limit competition. First, new entrants must be licensed by the Ministry of Industry. Until 1986 authorization was on a totally discretionary basis, and in practice no new life insurance company was licensed between World War II and 1985. In 1986 licensing was made nondiscretionary: it is sufficient for applicants to satisfy a number of requisites, such as specified financial ratios.

Second, life insurance companies are required to turn over to INA, a public company, 30 percent of their premium income for the first five years, 20 percent for the following five years, and 10 percent thereafter,[9] obviously a powerful deterrent to potential entrants.

Third, minimum premiums for life insurance are set each year by the Ministry of Industry. The actual premiums are the sum of three components: a fair premium, a spread to compensate the insurance company, and a commission to agents. The first two are set by the central authority and the third by the insurance agents themselves. If a company sold insurance at a price below that set by the regulating agency, its license could be revoked. In 1990 the excess of actual premiums over fair premiums for standard life insurance policies ranged from 18 to 20 percent.

The returns on life insurance contracts were consistently negative until the mid-eighties. Contracts provided no protection at all against inflation until 1973. Starting in 1974 the yield on life insurance was adjusted at a fixed rate (3.5–4 percent). With inflation at 20 percent, returns were abysmally negative throughout the seventies and early eighties. From 1974 to 1983 very few individuals signed new life insurance contracts, and those bound by old ones suffered great losses: in the early eighties the life insurance market was near collapse. The response of insurance companies was to offer indexed contracts,

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9. Before 1985, the rule was even more severe. Insurers were required to turn over to INA 40 percent of their premiums for the first 10 years of operation, 30 percent for the following 10 years, 20 percent for the next 20 years, and 10 percent thereafter.

with yields partially indexed to nominal interest rates: 80 percent of the premium has the same return as the portfolio of the insurance company. After 1984, the real rate of return on life insurance contracts became positive, comparable to that on Italian public debt.

Since 1986 the tax code has allowed a deduction from the policyholder's general income tax base of premium payments (P) up to 2.5 million lire per year. To be eligible for this deduction, the insurance contract must last a minimum of five years and the individual must not borrow for the first five years of the contract. Insurance premiums are taxed at the time they are paid at the flat rate of 2.5 percent, and a proportional commission is charged on the premium. As a result, the net amount invested each year equals $P/(1 + f)$, where f is the sum of the tax rate on premiums and the commission rate charged by the insurance company.

If the taxpayer takes the option of being paid a lump sum at the expiration of the policy rather than an annuity, he pays taxes at the rate of 12.5 percent on the difference between this payment and the sum of premiums paid.[10] If one instead opts for an annuity, 60 percent of it is considered taxable income. In case of early withdrawal, the individual is entitled to the reimbursement of nominal contributions.

Because of the different tax treatment between annuities and lump sum payments, almost invariably life insurance contracts terminate with the client choosing to collect the capital, rather than convert it into a stream of yearly income payments. Thus the lump sum option is the only one we consider below.

In order to compare the return on tax-favored life insurance contracts with that provided by an alternative financial asset, we compute the return of a typical life insurance policy with the following features: (i) the premium is a constant nominal amount P, equal to (or less than) 2.5 million lire so that it is fully tax-deductible from IRPEF, and is paid for a number of years $T \geq 5$, and (ii) the net amount invested per year, $P/(1 + f)$, is rewarded at a rate that equals the after-tax rate of interest r paid by an alternative financial asset of the same maturity (e.g., government bonds).

Denoting by τ_c the tax rate on the difference between the lump sum payment and the cumulated premiums TP, and by τ_p the marginal personal income tax rate, the value of the policy in year T is given by:

$$\frac{P}{1+f}\frac{1+r}{r}\left[(1+r)^T - 1\right] - \tau_c\left\{\frac{P}{1+f}\frac{1+r}{r}\left[(1+r)^T - 1\right] - TP\right\}$$

$$(1) \qquad\qquad + \tau_p P \frac{1+r}{r}\left[(1+r)^T - 1\right] =$$

$$P\frac{1+r}{r}\left[(1+r)^T - 1\right]\left(\frac{1-\tau_c}{1+f} + \tau_p\right) + \tau_c TP.$$

10. The current tax treatment of insurance contracts is in some respects more favorable in the other major European countries. In the United Kingdom, Germany, and France both premiums

The expression above is the sum of three terms: the value of the lump sum collected in year T, the tax liability on the difference between the lump sum and the sum of premiums TP, and the tax saving due to the deductibility of premiums. Given that the present value of the cash invested in the policy is:

$$(2) \qquad P\frac{1 + r}{r}\left[(1 + r)^T - 1\right]\left(\frac{1}{1 + r}\right)^T,$$

the "excess return" of the policy over the interest rate r is:

$$(3) \qquad \left(\frac{\text{future value of the policy}}{\text{present value of cash invested}}\right)^{1/T} - (1 + r)$$

$$= \left\{\left[\left(\frac{1 - \tau_c}{1 + f} + \tau_p\right) + \frac{\tau_c T}{[(1 + r)/r][(1 + r)^T - 1]}\right]^{1/T} - 1\right\}(1 + r).$$

Figure 5.2 shows the excess return of the policy under the assumption that the annual premium equals 2.5 million lire, that the insurance's commission is 7.75 percent of the premium—so that $f = 10.25$ percent—and that the after-tax rate of interest is 10.57 percent.[11] The excess return varies according to the taxpayer's marginal personal income tax rate and the duration of the policy. The figure shows that the excess return of the policy over the market interest rate is higher, the higher the marginal income tax rate and the shorter the duration of the policy. For very low income individuals the return is negative, because the commission and the tax on premiums actually outweigh the tax incentive. For a taxpayer whose marginal income tax rate is 33 percent, the standard five-year policy produces an excess return of 4.4 percent, while for individuals in the highest tax bracket the return above the market rate can be as high as 7.4 percent.

5.5   Conclusions

The Italian saving rate is high by international standards. This is often attributed to Italy's relatively high productivity growth and relatively severe liquidity constraints. A second feature of national saving in Italy is its variability. After increasing sharply in the fifties and sixties, the Italian national and private saving rates have declined markedly for two decades. Most explanations of this decline have focused on the slowdown in population and productivity growth after 1975, the role of increased government debt and of public transfers to households, and the transition from a funded to a pay-as-you-go social security system.

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and capital are tax-exempt—capital only if the contract exceeds a minimum duration (10 years in the United Kingdom, 12 in Germany, and 6 in France).

11. The 7.75 percent value is the "typical" commission, while the 10.25 interest rate is that reported for 1991 by ISVAP, the government regulatory agency of insurance companies.
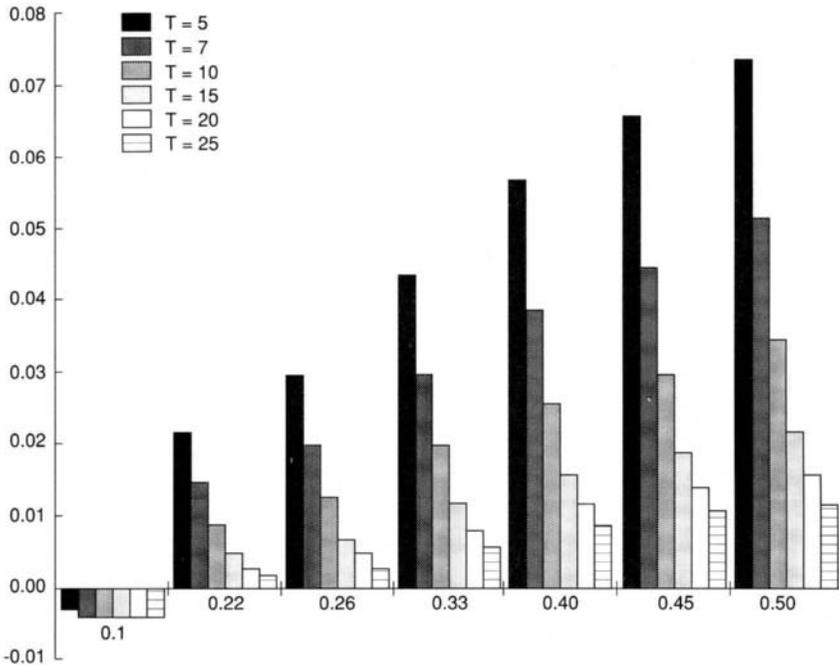
Fig. 5.2   Excess return on life insurance policies over return on government bonds, plotted by income tax rates and duration of insurance policy (T)

So far, no study has investigated whether changes in the tax code have contributed to changes in the household saving rate. Our analytical description of the Italian tax system suggests that the relatively high level of Italian saving may also be due to the favorable tax treatment of capital income and to the lack of incentives to borrow.

However, changes in the Italian tax code are unlikely to offer a satisfactory explanation for the decline in the Italian saving rate, since the tax reforms of the past two decades have been piecemeal and contradictory in this respect: the tax burden on capital income has increased, but new incentives for life insurance were enacted in the mid-eighties, and the deductibility of interest payments on mortgage loans was considerably restricted. One would expect these changes to have opposite effects on saving, and without more detailed empirical analysis one cannot assess their net impact. What does emerge, however, is that the new tax incentives have not prompted any substantial shift toward the favored assets. Few Italians have taken out life insurance policies, and very few have joined private pension funds. This is indirect evidence that the introduction of the new incentives has had a correspondingly minor impact on household saving.

It is easier to assess the impact of the dramatic changes in the Italian social security system, which has rapidly evolved from the funded to the pay-as-you-go model. Unless one subscribes to the dynastic view of Barro (1974), one would expect this to have contributed to the decline in the national saving rate in the seventies and eighties. Whether the generous social security benefits will continue to lower saving in the future is an open question, depending in part on the perceived sustainability of the current system and on expectations about the proposed reform plans.

Appendix
Summary of Taxes on Capital Income and Wealth and of Saving Incentives

1. Taxation of Capital Income

Dividends and profits: top marginal tax rate 72 (1975–82), 65 (1983–85), 62 (1986–88), 50 percent (since 1989).

Interest income: flat rate

Bank and postal deposits: 15 (1970–75), 16 (1976), 18 (1978), 20 (1978–82), 21.6 (1982–83), 25 (1984–87), 30 percent (since 1988).

Postal savings: exempt until September 1986, 6.25 (1986), 12.5 percent (since 1987).

Certificates of deposit:

Less than 18 months: as bank deposits until 1988, 25 percent afterwards.

More than 18 months: 10 (1970–82), 10.8 (1982–83), 12.5 percent (since 1984).

Government bills and bonds and bonds issued by government agencies:

exempt until September 1986, 6.25 (1986), 12.5 percent (since 1987).

Private bonds issued by:

Special Credit Institutions: 10 (1970–82), 10.8 (1982–83), 12.5 percent (since 1984).

ENI, IRI, and financial enterprises: 20 (1974–82), 10.8 (1982–83), 12.5 percent (since 1984).

Nonfinancial enterprises: 30 (1974–75), 20 (1976–82), 10.8 (1982–83), 12.5 percent (since 1984).

Convertible bonds: 15 (1974–75), 10 (1976–82), 10.8 (1982–83), 12.5 percent (since 1984).

Foreign assets: 30 (1970–72), 53 (1973–83), 50 (1984), 44 (1985), 39 (1986), 30 percent (since 1987).

Investment funds: income is tax-exempt; capital tax rate 0.25 percent (0.10 if at least 55 percent of the fund is invested in equities).

2. Households' Liabilities

Home mortgages
Full deductibility of interest payments until 1976; from 1976, interest payments deductible up to 3 million lire (4 million after 1980); except for first-home buyers, deductibility was abolished in 1990.
Consumer credit
No tax deductibility of interest payments.

3. Taxation of wealth and capital gains

Net wealth tax: no wealth tax exists.
Taxes at death and on gifts: both estate and inheritance tax exist (see text).
Capital gains: virtually tax-exempt until 1990. From 1990 choice of two regimes: flat rate of 25 percent or flat rate on the value of the shares between 0.3 and 1.05 percent.

4. Pension and Life Insurance Provisions

Social security
Employer pension contributions: no tax on contributions, taxed when paid as income.
Private pension funds
Employer pension contributions: no tax on contributions.
Benefits: if paid as annuity, 60 percent is taxed at the general income tax rate; if paid as lump sum, difference between capital and contributions is taxed at 12.5 percent (if contributions are less than 4 percent of yearly gross wage).
Severance pay
Deduction from the tax base and tax rate below the corresponding income tax rate (in both cases the tax benefit increases with the number of years of employment).

5. Life Insurance

Eligibility: universal.
Tax deductible contribution: 2.5 million lire/year.
Benefits: if paid as annuity 60 percent is taxed at the general income tax rate; if paid as lump sum, difference between capital and the sum of premiums is taxed at 12.5 percent.
Withdrawal provisions: if withdrawn before 5 years, reimbursement of nominal premiums only.

Sources: Alworth and Castellucci (1993); Giraldi, Hamaui and Rossi (1991); OECD (1988); see text.

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