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Taxation: The Cornerstone
of the Tax System
in Democratic Spain**

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Personal Income Taxation: The Cornerstone of the Tax System in Democratic Spain

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Introduction

For reasons of equity, transparency and its revenue raising ability, the personal income tax (PIT) has become the backbone of tax systems in the majority of developed countries. In Spain, however, personal income taxation has a short history since it was only incorporated into the tax system in 1978. Its implementation required many obstacles to be overcome and the complete reform of the Spanish tax framework, which was until then based on commodity taxes. However, despite its short lifetime, the Spanish personal income tax has undergone significant modifications during its 27 years of existence in order to adapt its structure and objectives to the country's economic and social needs. During the almost three

decades of its existence, its most significant reforms were undertaken in 1991, 1998 and 2002. There is no doubt that its versatility and ability to adapt to the political, economic and social situation in Spain explain the overwhelming success of the tax since its introduction.

The aim of this chapter is to explain the most significant events during the lifetime of the tax which, since its introduction, has become the form of taxation most widely known by Spanish taxpayers. We will therefore describe its historical origins, analyse its significance within the Spanish tax framework and offer a statistical evaluation of the tax since it came into force. We will also review the three most significant processes of reform since 1978. The first was in 1991 under the Socialist government of Felipe González; the other two were carried out in 1998 and 2002 by José María Aznar's *Partido Popular* government.

Historical Antecedents of the Personal Income Tax in Spain

The Origin of Income Taxation in Spain

The origins of the PIT in Spain can be traced back to 1810 with the *Contribución Extraordinaria de Guerra (CEG)*.¹ CEG was introduced in response to the need to obtain resources to finance the war against Napoleon's French invaders (Gota, 1971). The levy was subsequently modified to the point where it became akin to a tax on income imposed on the profits of farms, trade, industry and employment. However, the country's economic and social situation, rejection of the tax by taxpayers, and the high amount of fraud condemned it to failure (Aparicio and Álvarez, 2003).

In the 20th century, the first serious attempt to establish a progressive PIT occurred in 1932 during the Second Republic (1931-1936). This tax was named the *Contribución General sobre la Renta (CGR)*² and was levied on income obtained by

individuals with greater economic wealth (annual income higher than 601 euros – a very high amount at the time). Its schedule was made up of several bands with increasing rates of taxation from 1% to 7.7% for income greater than 6,000 euros at the time. The *CGR* was, without doubt, a milestone in Spanish tax history. Nevertheless, its practical application was once again a failure as the Spanish society was accustomed to commodity taxation and because the tax authority lacked the necessary means to administer it.

During the Franco dictatorship (1939-1975), the steps taken to incorporate progressive income taxation were very timid. Notwithstanding this, at the end of the 1950s the *Tax on Income from Personal Work* and the *Tax on Income from Property* were introduced. A modified combination of these two taxes, called the *General Personal Income Tax*, was introduced in the 1960s. However, this tax was not widely applied, as at its most successful point it only affected three hundred thousand taxpayers in the country as a whole.

The beginning of the 1970s saw a greater fiscal awareness by the country's economic authorities. Therefore, various proposals for tax reform were made in which the main thrust was to tax progressively personal income. This renewed interest in tax matters was led by the Institute for Fiscal Studies. In 1973, under its director Professor Fuentes Quintana, the Institute elaborated a proposal for reform contained in its *Report on the Spanish Tax System*, more popularly known as the *green paper*. This report signalled the need to implement a tax system supported by three basic pillars: a tax on personal income, a tax on company income and a turnover tax. However, in spite of the initial support of the tax authorities, the project was not implemented because of the fragile political health of the country, coinciding with the onset of General Franco's final illness. Nonetheless, years later, this excellent report

was the embryo of the 1977 tax reform. By 1977 there was an overwhelming need in the country to prepare an economic plan, without any further delays. This economic plan had, on the one hand, to assist in combating the economic consequences of the 1973 oil crisis and, on the other hand, to lead the nascent political system without Franco on the road towards democracy.

In this respect, the political and social peace necessary for a successful reform was achieved by negotiations between the government and all political parties, leading to the most important political agreement of present-day Spain: the *Moncloa Pacts* signed in October 1977 and analysed in depth by Professor Comín in this book. The tax proposal of this new Global Pact was supported by two basic pillars: reform of the structure and composition of the tax system and reorganisation and boosting of the roles of tax administration and inspection, which had traditionally been regarded as tasks of secondary importance. In terms of the new taxes, the reform introduced three new categories of taxation: *the personal income tax*, *the extraordinary tax on property* and *the corporation tax*. In other words, a progressive personal income tax and a proportional tax on company profits were created. In parallel, the personal income tax was complemented by a general tax on the personal wealth of individuals, which, in addition, aimed to monitor the consistency of the income declared in the PIT.³ The 1977 reform was so successful that today, almost thirty years later, the Spanish tax system continues to be largely based on these two income taxes. This change in taxation implied the definitive rejection of commodity-based taxation of income and the firm acceptance of a modern tax structure based on direct personal taxation of income. This achievement was, without doubt, assisted by the fact that, in parallel with the formal changes to the tax system, great attention was paid to modernising and improving the tax administration authority itself, involving the

reorganisation of the civil service departments dedicated to tax administration and audit.

The Role of the Personal Income Tax in the Spanish Territorial Decentralisation Process⁴

Another of the reform's merits was that it recognised the need for the country's territorial restructuring. The decentralisation of the public sector brought about by the 1978 Constitution allowed the formation of a State of Autonomous Regions, dividing the national territory into seventeen "Autonomous Communities" and two autonomous cities (Ceuta and Melilla). Territorial public administration required that, in addition to the transfer of public spending competences from central to regional governments, a share of public revenues would also be transferred. In this process, the Constitution recognised two alternative financing systems: the Foral Regime, which was to apply to the Communities of the Basque Country and Navarre, and the Common Regime, which was to govern the remaining Autonomous Communities.⁵ These two systems of territorial administration of financial activity had very different structures and ways of operating from the outset. The former was governed by the Covenant and Agreement between the State and the Communities of Navarre and the Basque Country. The Common Regime was regulated by the Organic Act on the Financing of the Autonomous Communities, better known as *LOFCA*.

Unlike the Common Regime, the Foral system from the outset bestowed wide competences on the Foral Communities to manage the vast majority of public expenditure and to establish and regulate their own tax system, with minimal restrictions. Therefore, the Basque Country and Navarre were financed by the so-called agreed or ceded taxes and only customs duties and social security contributions

lay outside their remit. As we shall see below, unlike the Common Regime, the Foral Communities acquired wide powers over income taxation.

For the Common Regime Communities, the LOFCA specified that the transfer of powers of expenditure must occur in accordance with the *effective cost method*. This system consisted in evaluating the ability of each regional government to provide the goods and public services transferred, incorporating all of the ongoing costs involved into the analysis. A commitment was also made to review the financial situation of each Community every five years in order to make appropriate changes to ensure the provision of the transferred services in the longer term. The most significant changes to the system were made in 1986, 1992, 1996 and 2001. In 1986 an agreement was reached to replace the effective cost method with a system based on indicators of each Community's expenditure requirements and, in 2001, the five-yearly review ceased to be obligatory.

With regards to the financing system, the LOFCA provided for increasing joint responsibility for public revenues. And so, during the period 1982-1984 the system of state transfers which had been in place until then was replaced by a new system based on the transfer or reassignment of certain taxes and on the sharing of state revenues through what was called the Sufficiency Fund. The objective of this fund was to guarantee the equalization of the quality of services transferred throughout the national territory. Moreover, in 1997, for the first time, the tax resources of the Autonomous Communities were greatly increased through the transfer of 30 percent of the personal income tax revenues to the Communities. This transfer required the amendment of the LOFCA to incorporate income tax as one of the potentially transferable taxes since originally this had not been the case. The trend that started in 1997 was significantly reinforced in the 2001 Agreements. The review of the system,

which took place that year and entered into force in January 2002, meant an increase both in the number of taxes transferred and the legal powers backing them. Although the income tax was not one of the taxes transferred with greater legal powers, it is clear that the modifications carried out in 2001 greatly increased the potential for using this tax as a tool of regional policy. In 2002, the percentage of income tax revenue transferred increased from 30 to 33 percent. Other taxes transferred included 35 percent of VAT, 40 percent of special taxes on hydrocarbons, tobacco and alcoholic beverages and the total transfer of taxes on electricity and specific modes of transport. Legal competences in relation to taxes already transferred to the Autonomous Communities were also increased. Another important change was that, from 2002, the financial guarantees relating to the income tax destined for the Autonomous Communities were removed. Its increase at a rate equal to nominal GDP growth had, until then, been guaranteed by the central government. The idea was that the elimination of this “guaranteed revenue” would likely strengthen the active role of income tax in the finances of the Autonomous Communities, encouraging them to use their legal powers.

In short, although the Foral Communities already had wide-ranging legal powers over taxation from the outset, the current system of regional financing gave the income tax an important role in the funding of Common Regime Communities. Since January 2002, the Autonomous Communities have had the following specific legal competences with respect to the income tax:

1. To amend the general autonomous tax schedule, while retaining its progressive structure and the same number of bands as the State system.
2. To amend, up to a limit of 50 percent, the rate of general deduction for investment in housing from the deductible share of the autonomous tax base.

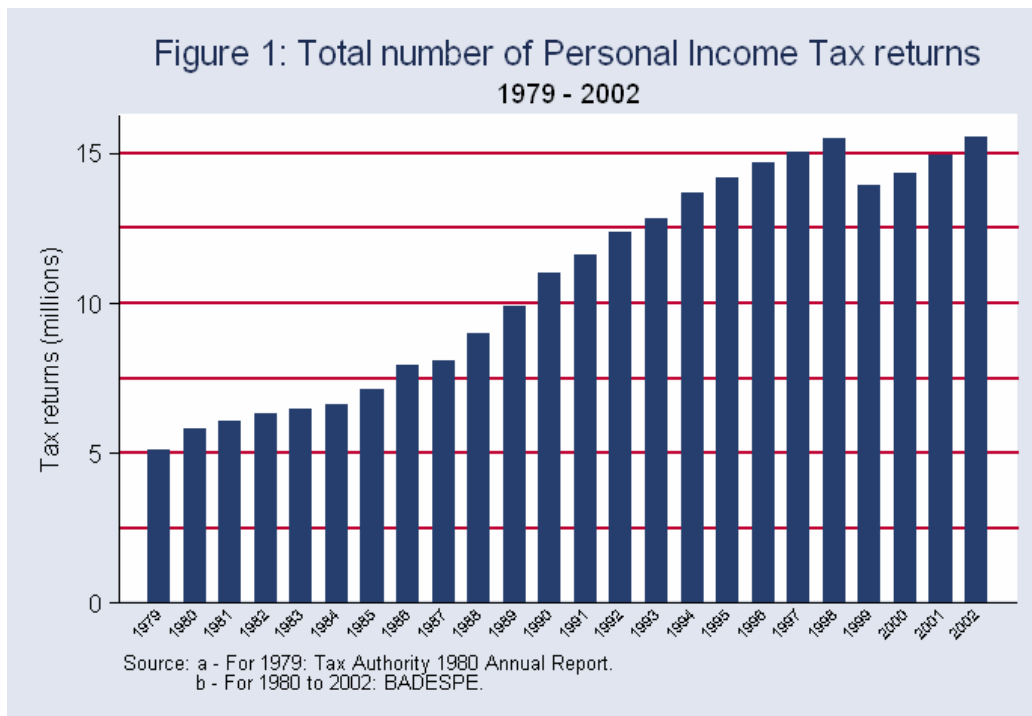
3. To introduce deductions for personal and family circumstances and for non-business investments provided that that such reductions do not mean a reduction on the effective tax rate of any category of income.

The Personal Income Tax in Figures: The Move from Commodity Taxation to Personal Taxation

As noted above, with the 1977 reform, a progressive and generally applicable personal income tax was introduced into the Spanish tax system. Table A1 in the appendix shows the growing importance of income and wealth taxation on total revenue. Similarly, in the same appendix, Table A2 highlights the high impact of income taxation on tax revenues since 1980. It has systematically maintained a level of around 30 percent of the total tax collected, reaching 40 percent of the total revenue from taxation in 1993. Since then, however, personal income taxation has remained relatively stable with a slight fall in recent years. In particular, following the 1999 income tax reform, the relative weight of this tax went from 33.11 percent in 1998 to 30.76 percent in 1999 and 30.36 percent in 2000, with the latter level of revenue being similar to the level at the beginning of the 1980s.

Since its adoption by Congress in 1978, the personal income tax has achieved a high level of social acceptance. Within a few years it became the most accepted form of taxation amongst Spanish taxpayers. Its success was due, in good part, to the deftness of the Government of the day which was able to explain to citizens the new social values which made the tax one of the financial pillars of democratic Spain. As can be seen in Figure 1, in a little more than two decades the number of tax returns tripled, increasing from 5 million declarations in 1979 to more than 15.5 million in 2002. This growth in the number of returns filed shows that the tax had become firmly

established in social terms. However, there are several reasons for this growth in the number of tax returns. Many of them are linked to circumstantial issues that are not always related to social acceptance of the tax.



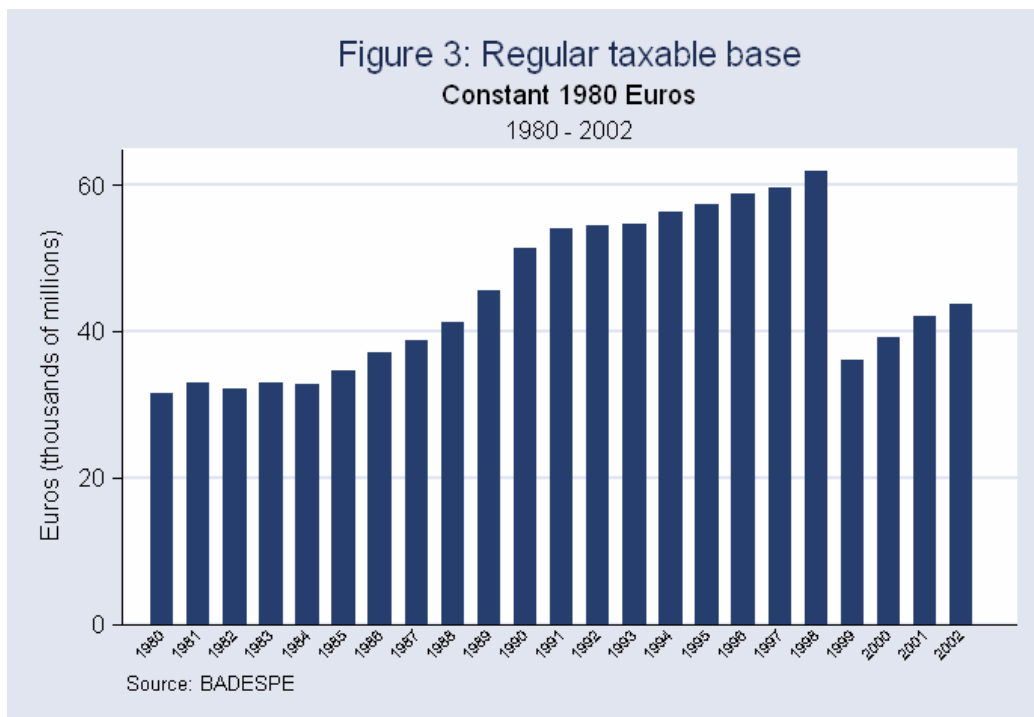
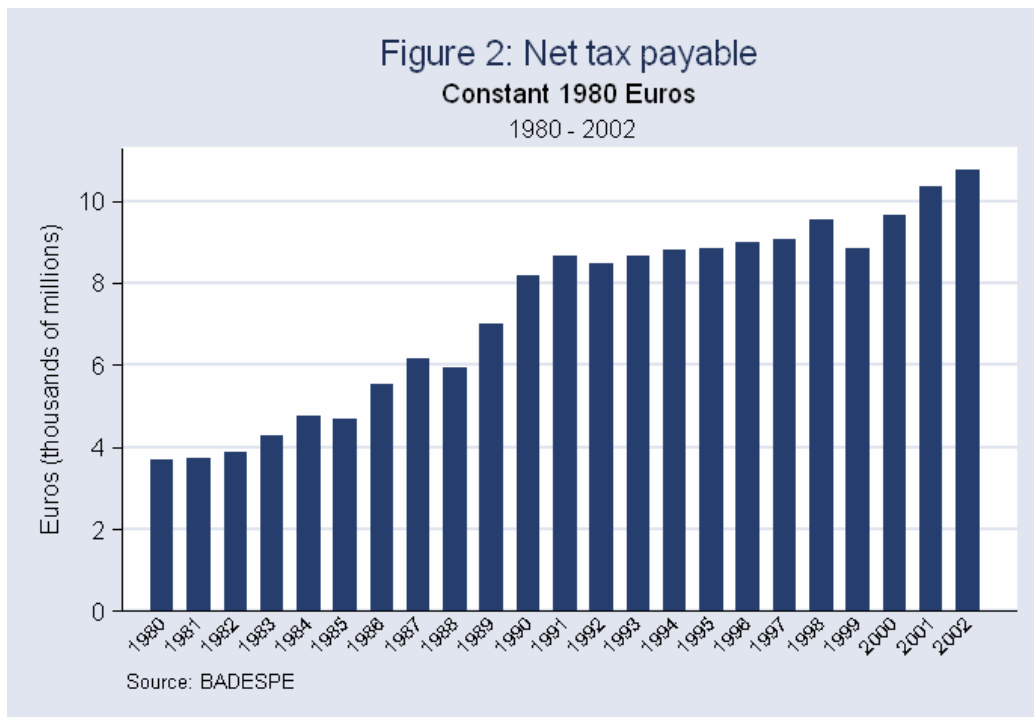
We should note several explanatory factors for this growth in the number of returns. The number of taxpayers grew significantly in 1985 and 1986. In large part, this was due to the introduction of the Value Added Tax (VAT hereafter) and to improvements in tax management introduced that year following our entry into the European Economic Community (EEC). Taxes such as the personal income tax and VAT which operate in the same economic environment gave the tax authorities cross-checks on information which assisted the detection of significant instances of tax fraud. In 1986, very probably as a result of VAT being applied, eight hundred thousand more self-employed people filed income tax returns. The sharp increase in the number of returns presented from 1986 onwards was also due to the entry into force of Act 14/85 on the Tax Regime of Certain Financial Assets. This Act defined

very precisely the way in which the income from different financial assets had to be declared. Until then, the legal vacuum that existed facilitated exercises in financial engineering the sole aim of which was to avoid paying the income tax. In addition, since 1989 married couples had the ability to choose between individual and joint declaration. Thereafter, many joint tax returns were divided into two individual returns, thus increasing the number of returns presented. The fall in returns presented in 1999 was due fundamentally to the 1998 reform, which removed the obligation to file tax returns for individuals with income lower than 21,035 euros. However, between 1999 and 2002 the number of returns began to increase again and reached 15.5 million, due in large part, to the large increase in the number of immigrants to Spain during this period.

Another indicator of the extent to which a tax is effectively implemented in a society is its ability to generate revenues. In constant 1980 euros, the revenue generating capacity of the personal income tax between the 1980s and 2002 has increased by a factor of three (see Figure 2). Three distinct stages can be identified during this period. The first stage from 1980 to 1991 saw constant and strong growth in real revenues. The second stage from 1992 to 1998 saw revenues stabilise in real terms. Finally, a third stage from 1999 to 2002 saw real revenues again grow strongly.

Another peculiarity of the personal income tax, as shown in Figures 3 and 4, is that its tax base is fundamentally constituted by ordinary and regular income. Nonetheless, we can also see that the weight of irregular incomes as part of the tax base has increased significantly in recent years, amounting to 6.44 percent in 2000⁶. In 2001 and 2002, the proportion of irregular income has systematically been above 4 percent. This increase in the amount of irregular incomes declared was due, in good

part, to the fact that, since 1996, all capital gains were taxed independently of the period in which they were accrued.



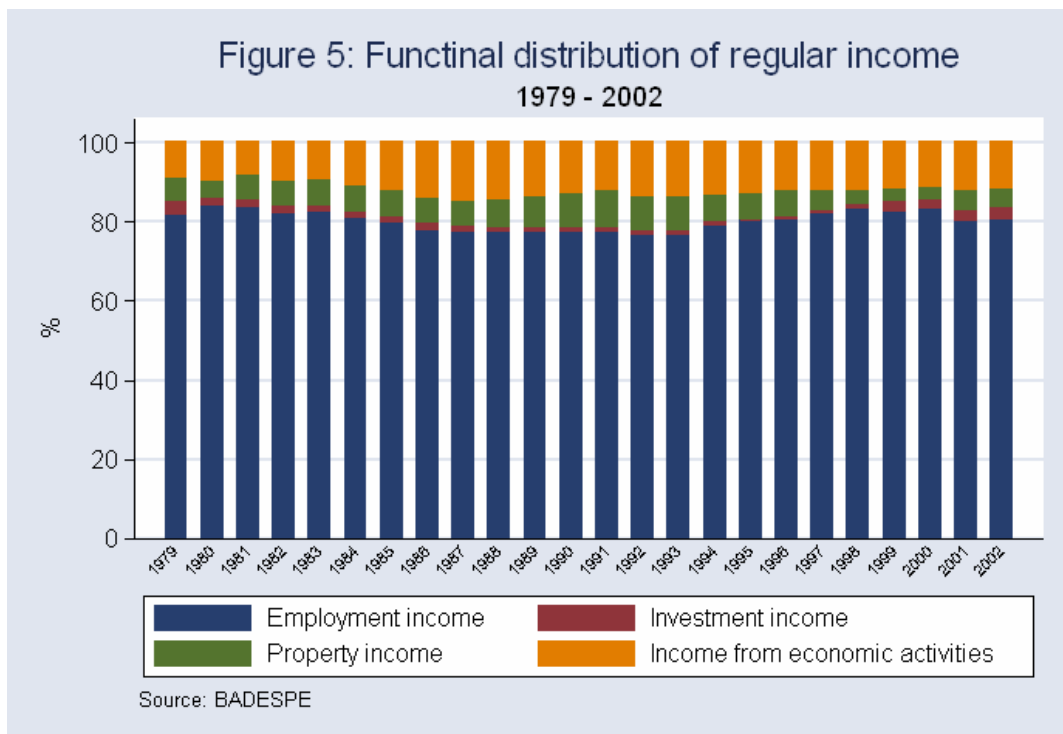
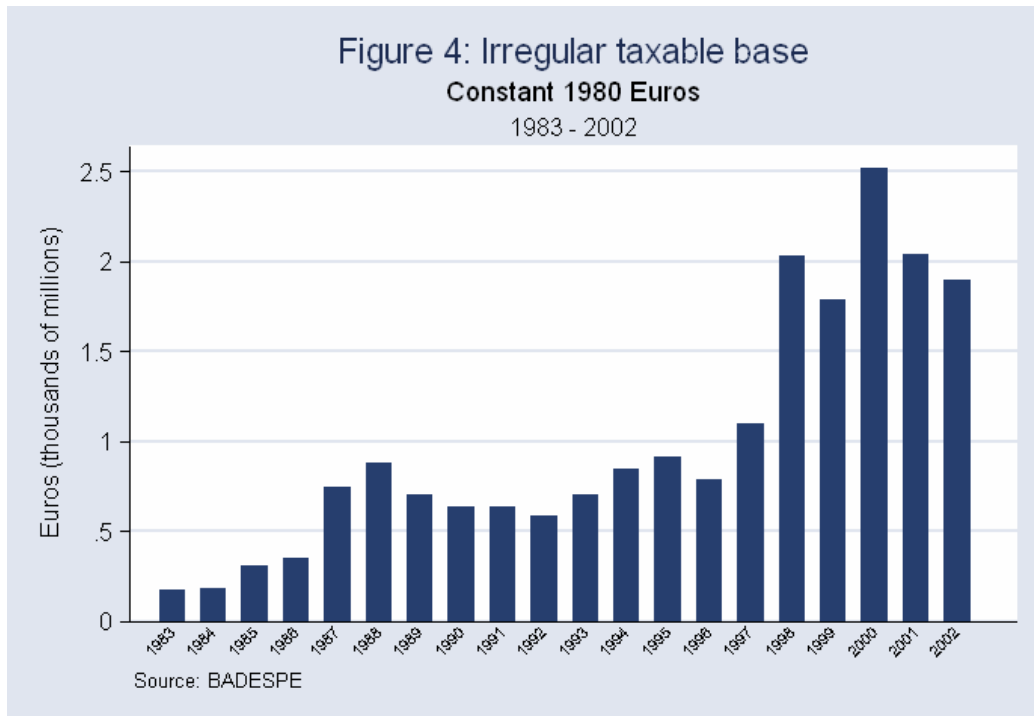


Figure 5 makes it very clear that in terms of regular income declared, as is the case with other countries with a personal income tax, the Spanish income tax is basically a tax on salaries. On average, since 1980 salaried incomes have represented

approximately 80 percent of incomes subject to taxation. In order of importance, company and professional income come next representing 10 percent, followed by investment and property income.

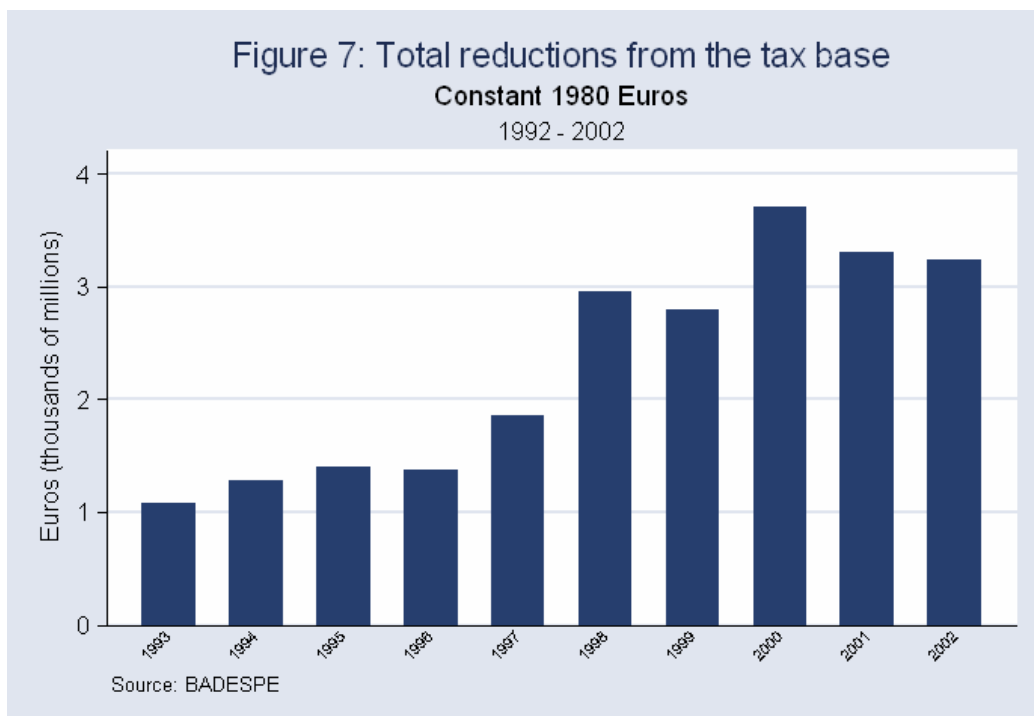
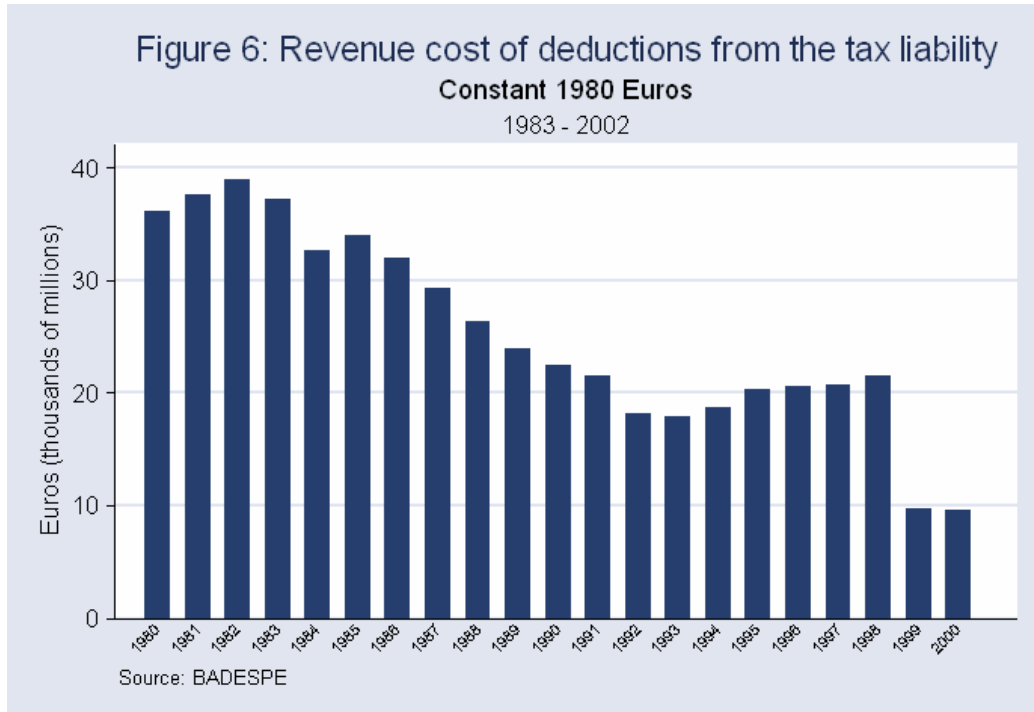
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Another important area is that of tax incentives. Here, tax expenditures associated with tax credits, allowances and special treatments allowed since the PIT introduction have had a significant effect on its revenues. Figure 6 shows the cost effect of deductions on revenues calculated as the percentage of the total taxable income. As can be seen, up to 1989, deductions reduced potential tax revenues by more than a third. In 1983, this cost was 40 percent. Following the 1998 reform, this cost was reduced to approximately 10 percent but this decrease was obviously due to the transfer of deductions from the tax liability (as tax credits) to the tax base (as allowances) which was introduced, as we shall see later, in 1998. As a result, as Figure 7 shows, from 1998 the amount of reductions in the tax base increased suddenly and significantly.

A Review of the Most Significant Reforms to the PIT: 1991, 1998 and 2002.

Since 1978, the personal income tax has from time to time been changed and modified. As we stated in the introduction, there were three very significant tax reforms which were implemented in 1991, 1998 and 2002. In addition to these reforms, the Annual Budgets during this almost thirty-year period have introduced small changes in order to update some aspects of the tax, but they did not involve structural changes to the tax. On other occasions, however, the introduction of laws covering financial issues or general economic policy have had consequences for the

tax, either by specifying more accurately the tax base, or by describing the terms and conditions for accessing a particular tax benefit in greater detail. The three main fiscal reforms are summarised below.



Principal Features of the 1991 Reform

The first of the three significant tax reforms, carried out during the Socialist government of Felipe González, was largely brought about by a judgement of the Constitutional Court in 1989 which declared that the assessment of the pooled incomes of married couples, established by the 1978 Act on the personal income tax, was illegal on the grounds of discrimination. From its introduction, the personal income tax had required married couples to file jointly. This legal ruling created a serious problem in terms of cumulative earnings, which was particularly prejudicial to couples with two wage-earners and extremely damaging to the horizontal equity of the tax. This aspect of the tax had been widely criticised since it was introduced in 1978. Despite this, no amendments were introduced between 1979 and 1985 to reduce or correct the cumulative assessment of income established by the legislation. In the 1986 and 1987 financial years, the Finance Act introduced a small correction through a deduction based on a polynomic formula applicable to married couples (Act 48/1985 of 7 December), but which only slightly reduced the “marriage penalty”⁷.

Nevertheless, it was only in February 1989 that a judgement of the Constitutional Court required that this discrimination be halted forthwith. Not only did this judgement require the future reform of the personal income tax to stop the penalty on married couples, but it also required it to stop with immediate effect and as a matter of urgency that same year, only three months before the period for filing tax returns for 1988. The Government’s chosen solution to rectify this situation was a double tax schedule: one specifically for individuals and one for joint filings. It also granted a deduction for earnings obtained by each member of the family unit.

Besides introducing changes aimed at eliminating discriminatory treatment of married couples, the 1991 reform improved the definition of the tax base. In this

context, the most significant improvement was the more accurate and detailed definition of payments in kind and their quantification. This eliminated the use of the latter as a means to avoid paying tax which had been habitual practice at the end of the 1980s. Moreover, important aspects of the tax, which had until then been unclear, were better defined, such as the concepts of habitual residence and the non-residents taxation. Special tax treatments were also established for irregular income and income from long-term savings (see section 5.3 for more detail).

Principal Features of the 1998 Reform

Following the political change in 1996, the *Partido Popular* government took the view that the income tax structure, which had been in force since 1992, was fatigued by the loss of flexibility in tax revenues and its negative impact on employment. Therefore, after its first two years in power, it undertook a reform of the tax with Act 40/1998. The most significant structural change was to define the economic capacities of individuals in accordance with the concept of the “vital minimum”. This was based on the idea that tax obligations should only arise for taxpayers once their basic needs had been met. This manner of considering tax obligations meant that the family and personal circumstances of the taxpayer were to be addressed in the tax base instead of in the tax liability.

The structure of the tax schedule was also simplified considerably: The maximum marginal tax rate was reduced from 56 percent to 48 percent, the minimum marginal tax rate was reduced from 20 percent to 18 percent and six tax bands were established. To improve the treatment of the lowest salaried incomes, the tax introduced an earned income allowance which decreased in accordance with the level of the taxpayer’s income. In addition, the new legislation removed the obligation to file a tax return from all those tax paying units whose income was lower than 21,035

euros. Previously this limit had been at 7,212 euros. As a result of this significant change in the tax threshold, the 1998 reform exempted more than five and a half million taxpayers from having to file a tax return.

Moreover, in the view of the new Government, the tax had failed to achieve neutrality in its treatment of savings, as evidenced fundamentally by the fact that the opportunity existed to keep capital gains exempt from tax. This capital gains exemption implied moreover a significant loss of the tax's redistributive ability by favouring higher income earners. Therefore, the treatment of capital gains which had been in force since 1991 was reformed in 1996 with further amendments in the income tax reform of 1998. A detailed description of the treatment of capital gains is presented in section 5.3.

Principal Features of the 2002 Reform

Following the huge change in taxation which the 1998 reform undoubtedly represented, the *Partido Popular* government decided four years later to look at this area in greater depth, leading to a new reform promulgated by Act 46/2002. The change introduced in 2002, which was applied to income obtained in 2003, had neither the depth nor the significance of the 1998 reform, although it did expand on the changes the latter had introduced. Amongst the other changes in this reform, we should highlight the significant reduction in the tax burden for contributing units with the greatest family responsibilities. In particular, the most important modifications introduced by Act 46/2002 can be summarised as follows:

1. It increased personal and family allowances. It also significantly improved the tax treatment of the disabled.
2. It introduced a new deduction for working mothers with children younger than three years.

3. It increased the earned income allowance. In addition, to providing an incentive for extending the working life, this reduction was doubled for workers older than 65 years.
4. It introduced, for the first time, a 50 percent allowance for net income from property for landlords. The objective of this was to encourage rented housing.
5. It reduced the number of tax brackets from six to five and again reduced the highest and lowest marginal tax rates from 48 percent to 45 percent and from 18 percent to 15 percent, respectively.

Following these large-scale tax reforms, the components and structure of the income tax had undergone significant changes. By way of illustration, Table 1 shows the process of gradual reduction which the tax has undergone from its creation to the present day. As can be seen, three phases can clearly be distinguished (each is highlighted with a different background in the table). The first of these, running from the introduction of the personal income tax up to 1987, is characterised by a single tax schedule with the number of tax bands varying between twenty-eight and thirty-four, by having maximum marginal tax rates higher than 60 percent and, finally, by minimum marginal tax rates of between 8 percent and 16 percent. The second phase ran from 1988 to 1998. This period coincided with the modifications introduced by the judgement of the Constitutional Court in 1989 (applicable from the 1988 financial year) up to the 1998 income tax reform. During this phase, the double tax schedule was introduced for individual and joint tax returns, the number of tax bands was drastically reduced from thirty-four in 1987 to seventeen in 1988, the maximum marginal tax rate was reduced by ten points to 56 percent and, finally, following the 1991 reform, the minimum marginal tax rate was set at 20 percent. In the third phase, from 1999 to the present day, the process of tax schedule reduction has continued

Table 1. Principal features of the personal income tax schedule between 1980 and 2003

Years	Schedule	Marginal rate		Number of bands	Last band of the schedule current euros	Last band of the schedule constant 1980 euros
		Minimum	Maximum			
1980	U	15.00	65.51	28	58,899	58,899
1981	U	14.80	65.09	30	63,707	56,709
1982	U	15.56	68.47	30	63,707	49,927
1983	U	15.72	65.00	34	72,121	50,516
1984	U	16.14	66.00	34	73,323	46,325
1985	U	8.00	66.00	34	73,323	42,657
1986	U	8.00	66.00	34	73,323	38,474
1987	U	8.00	66.00	34	76,989	38,130
1988	U	25.00	56.00	17	48,080	22,478
1989	U	25.00	56.00	16	49,523	21,659
1990	U	25.00	56.00	16	51,999	21,190
1991	U	25.00	56.00	16	54,595	20,804
1992	I	20.00	56.00	17	57,393	20,495
	C	20.00	56.00	16	66,111	23,609
1993	I	20.00	56.00	17	57,393	19,606
	C	20.00	56.00	16	66,111	22,584
1994	I	20.00	56.00	17	57,396	18,875
	C	20.00	56.00	16	66,111	21,741
1995	I	20.00	56.00	18	59,410	18,621
	C	20.00	56.00	17	68,437	21,451
1996	I	20.00	56.00	18	61,435	18,598
	C	20.00	56.00	17	70,859	21,451
1997	I	20.00	56.00	10	63,034	18,650
	C	20.00	56.00	10	72,722	21,516
1998	I	20.00	56.00	8	63,106	18,233
	C	20.00	56.00	8	72,938	21,074
1999	U	18.00	48.00	6	66,111	18,570
2000	U	18.00	48.00	6	67,433	18,315
2001	U	18.00	48.00	6	67,433	17,577
2002	U	18.00	48.00	6	67,433	16,836
2003	U	15.00	45.00	5	45,000	10,961

Notes: U refers to the existence of a uniform schedule applicable to all taxpayers, I refer to the schedule for individuals and, finally, C is the joint schedule.

Table 2. Principal changes to the structure of the personal income tax following the reforms of 1991, 1998 and 2002.

Year	1978	1991	1998	2002
Taxation of married couples	Joint	Individual or joint	Individual or joint	Individual or joint
Taxation scale	Single Schedule	Double schedule	Single Schedule	Single Schedule
Threshold for declaration of income from employment	1,803 euros	6,010 euros	21,035 euros	22,000 euros
Principal allowances against the base	<ul style="list-style-type: none"> - Purchase of habitual residence (loan interest) - Contributions to pension plans and supplementary pensions - Reduction for income from employment (5 percent of gross revenue) 		<ul style="list-style-type: none"> - Contributions to pension plans and supplementary pensions - Reduction for income from employment (decreasing with income) - Personal minimum - Family minimum (ascendants and offspring) - Minimum for the disabled <ul style="list-style-type: none"> iii. Ascendants older than 65 and greater than 75. - Offspring - Profits derived from housing rentals⁽¹⁾ - Workers older than 65 	
Principal allowances and tax credits	<ul style="list-style-type: none"> - For income from employment (decreasing with income) - Workers >65 years - The disabled - Ascendants - Offspring - Purchase of habitual residence (loan interest) - Life, death or invalidity insurance - Illness expenses -Housing rental - Donations - Investment in assets with a cultural interest - Double taxation of dividends - Investment incentives for businessmen 		<ul style="list-style-type: none"> - Purchase of habitual residence (principal and loan interest) - Donations - Investment in assets with a cultural interest - Double taxation of dividends - Investment incentives for businessmen - Deduction for mothers with children under 3 years c⁽¹⁾ 	

Note: (1) From 2003

with maximum and minimum marginal tax rates reaching 45 percent and 15 percent following the 2002 reform and the creation of only five tax brackets. Table 2, on the other hand, summarises other aspects of the tax such as the taxation of married couples and the main allowances and tax credits over time. As can be seen, before the 1998 reform, the majority of the tax incentives were tax credits instead of deduction allowances. On the other hand, since 1999, tax credits have been restricted in practical

terms to the purchase of a habitual residence, for double taxation, and the new deduction for working mothers for the care of children younger than three years old, which was introduced as part of the 2002 reform.

The Economic Effects of the Reforms

This section reviews the main economic effects of the reforms described above. Although it is to be expected that the personal income tax has many effects, we will concentrate on the most significant. Firstly, we will evaluate the impact of the tax on employment. Secondly, we will study the tax treatment of habitual residences, a controversial subject because of the high price increases of residential property recently witnessed. Thirdly, we will analyse how the tax treatment of different forms of savings has evolved over time. Finally, we will assess the overall distributive capacity of the tax and its impact on inequality in the distribution of income and on the welfare of taxpayers.

The Tax Treatment of the Labour Factor

Salaried income is easily the source of declared income with the greatest weight in the personal income tax base. This means that any modification to the tax has a particularly significant effect on the operation of the labour market and also on the distribution of employees' income. This proposition is of particular importance in the case of Spain, since it is the European Union country which has maintained the highest rate of unemployment over many years⁸ It is, therefore, not surprising that the objective of encouraging employment has been, without exception, one of the goals set for the three bouts of reform reviewed above. Although there are many factors which determine the level of unemployment, empirical evidence attributes an

important role to the tax treatment of labour income (see, for example, European Commission, 2000).

A compact measurement of the level of taxation borne by the labour force is the concept of the effective marginal tax rate (EMTR). This tool is useful for evaluating the tax treatment that the labour factor bears at the margin, as well as for quantifying the weight of each of the elements which affect this tax treatment. The generic definition of this measurement is (Mckee *et al*, 1986):

$$METR = \left[t_{WE} (1 - t_{IS} D_{IS}) + \frac{t_C}{1 + t_C} + \frac{T_L}{1 + t_C} \right] \quad [1]$$

where t_{WE} is the social security contribution rate of the employer, t_{IS} is the rate of corporation tax, D_{IS} is the percentage deduction for employer contributions from the corporation tax, t_C is the average rate of taxation on consumption borne by wage-earners and T_L are the taxes borne by wage-earners (social security contributions of the employee and the personal income tax). The EMTR set out in expression [1] is therefore constructed using the sum of three components: the net cost of employee contributions, taxation on consumption borne by wage-earners and the taxation of wage-earners' income.

Taking a family with two children and a salary equal to that of an average industrial worker, Table 3 offers a comparison of computed EMTRs for the period 1983-2001. As can be seen, Spain has a level of effective marginal taxation similar to that of the United Kingdom or Portugal and lower than countries such as Italy, France or Sweden. Moreover, the EMTR trend is decreasing, from values higher than 0.6 in the middle of the 1980s to 0.55 in 2001. In other words, on average, the effective marginal burden of the income tax on the labour factor has been reduced.

The above results are completed with the information set out in Table 4 which shows the weighting of the three components of EMTR. As can be seen, in the European countries analysed, approximately 40 percent of the EMTR is comprised of taxes on the income of wage earners while the remaining 60 percent is equally distributed between the other two components of EMTR, employer contributions and consumption taxes. On the other hand, in the United States and Japan the relative weighting of taxes on salary income is 70 percent and 30 percent respectively. The Spanish case is very close to that of other European countries. Although the weight of employer contributions is higher, a lower weighting for consumption taxes makes up for this. It is notable that having experienced higher rates of unemployment than all other countries in Table 4, Spain also had the highest weight for employer contributions.

Table 3. Effective marginal tax rate (EMTR) on labour use 1983 – 2001

Year	France	Germany	Italy	Japan	Portugal	Spain	Sweden	UK	USA
1983	0.63	0.54	0.71	0.33	0.40	0.52	0.74	0.52	0.43
1984	0.60	0.54	0.66	0.34	0.42	0.54	0.82	0.53	0.36
1985	0.60	0.53	0.65	0.33	0.40	0.64	0.76	0.53	0.36
1986	0.62	0.54	0.65	0.37	0.44	0.66	0.76	0.53	0.35
1987	0.61	0.54	0.65	0.35	0.44	0.56	0.76	0.51	0.40
1988	0.63	0.54	0.66	0.36	0.45	0.57	0.89	0.51	0.42
1989	0.65	0.55	0.65	0.37	0.54	0.59	0.88	0.48	0.41
1990	0.62	0.56	0.69	0.40	0.53	0.59	0.70	0.48	0.42
1991	0.61	0.57	0.70	0.40	0.52	0.59	0.73	0.48	0.42
1992	0.63	0.56	0.71	0.37	0.54	0.58	0.69	0.49	0.42
1993	0.65	0.56	0.71	0.37	0.53	0.58	0.67	0.48	0.41
1994	0.66	0.60	0.72	0.39	0.54	0.59	0.68	0.49	0.42
1995	0.65	0.59	0.76	0.39	0.54	0.58	0.69	0.51	0.42
1996	0.66	0.64	0.76	0.41	0.53	0.54	0.71	0.48	0.42
1997	0.66	0.65	0.76	0.40	0.54	0.58	0.71	0.48	0.41
1998	0.65	0.65	0.80	0.41	0.54	0.55	0.71	0.48	0.40
1999	0.62	0.66	0.78	0.55	0.54	0.56	0.71	0.49	0.36
2000	0.61	0.65	0.70	0.55	0.55	0.56	0.71	0.48	0.36
2001	0.60	0.70	0.68	0.55	0.55	0.55	0.71	0.48	0.37
Average 1983–85	0.61	0.54	0.67	0.34	0.41	0.57	0.78	0.52	0.38
Average 1986–90	0.63	0.54	0.66	0.37	0.48	0.59	0.80	0.50	0.40
Average 1991–95	0.64	0.57	0.72	0.38	0.53	0.58	0.69	0.49	0.42
Average 1996-2001	0.63	0.66	0.75	0.48	0.54	0.56	0.71	0.48	0.39

Source: Romero and Sanz (2005).

Table 4. Breakdown of EMTR (in percentage terms)

Year	Employer contributions			Taxation of the consumption of wage earners			Taxation of the income of wage earners		
	Spain	European countries ¹	Japan -USA	Spain	European countries ¹	Japan -USA	Spain	European countries ¹	Japan -USA
1983	40.9	27.6	13.0	15.8	27.8	18.1	43.3	44.6	68.9
1988	34.9	26.6	13.5	25.4	30.1	17.1	39.7	43.3	69.4
1993	33.9	29.7	16.0	24.6	29.9	16.9	41.4	40.4	67.1
1998	34.1	28.9	15.3	24.4	28.4	16.7	41.5	42.7	68.0
2001	36.8	30.9	16.4	22.7	27.5	17.8	40.5	41.6	65.8
Average 1983-2001	34.9	29.0	15.3	24.3	29.0	17.1	40.8	42.0	67.6

Notes: (1) Average of the European countries listed in Table 3 (excluding Spain)

Source: Romero and Sanz (2005)

One aspect which deserves special attention is the tax treatment of the second *wage-earner* for married couples. As we have already seen, until the 1989 judgement of the Constitutional Court, married couples only had the choice of filing joint returns. This situation created a clear problem of accumulated income which acted as a disincentive for the second wage-earner, normally the wife, to actively seek employment. First, the marginal rate of the personal income tax applied to these workers was higher than the rate which would have been applied if they had filed separate tax returns.⁹ Second, the available empirical evidence suggests that the supply of labour by these workers was very sensitive to changes in net salary, with estimated labour supply elasticities at the time close to 2 (García *et al*, 1989). It is therefore not surprising that the elimination of mandatory joint filing should generate significant efficiency gains which, on average, increased gross family income between 0.11 percent and 0.85 percent by encouraging an increase in the participation of married women in employment (García *et al*, 1989).

The Tax Treatment of Housing

In the 1960s, home ownership represented 67 percent of the total residential property market in Spain. This rose to 78 percent in the 1980s and to 86 percent at the end of the 1990s. Comparatively speaking, Spain has the highest rate of property ownership in the EU which had an average rate of 61 percent in 1999. In parallel, Spain has the lowest rate of social rental housing at 2 percent compared to the EU average of 18 percent (Trilla, 2001). This clear preference for buying as opposed to renting is, in good part, due to the different tax treatment of these two options in terms of the personal income tax. For the purposes of comparison, Table 5 shows the most significant features of the tax treatment of housing, both with respect to ownership and renting, since 1978. Between 1978 and 1998, the treatment of the purchase of a habitual residence for income tax purposes was as follows (see Table 5 for details):

1. An imputed income valued at 2% of the value of the house (generally, this was the cadastral value of the house).
2. Mortgage loan interest payments were deductible against income. Moreover, an additional tax credit was also allowed for investment in housing for habitual residence. This tax treatment meant that acquiring a habitual residence was one of the investment decisions with the best tax treatment, although there was a clear problem of regressivity due to the fact that interest payments were deductible from the tax base so that tax savings increased with income.
3. Exemption from taxation was granted for a capital gain obtained from the sale of a habitual residence provided that the total amount obtained in the transaction was to purchase another habitual residence.¹⁰ If the reinvestment was partial, only the proportional share of the capital gain was exempted from taxation.

With the 1998 reform, the income imputation of 2 percent of the value of the house used as habitual residence was eliminated. The two deductions referred to in the previous paragraph were also combined into a single tax credit for interest payments and amortisation of the loan capital. As described in Table 5, this new tax framework favours the treatment of habitual residences financed with loans compared to those where loans are not involved. This applies especially to those homes whose date of purchase was less than two years ago as they benefit from greater tax credits. The changes introduced in 1998, which are currently still in force, have meant a significant increase in marginal tax savings for people with low and medium incomes (Onrubia y Sanz, 1999)¹¹.

In addition, the incentive for investment in a habitual residence could be brought forward by opening a *housing savings account* as long as the amount of savings generated was used to purchase a habitual residence. In recent years, some Autonomous Communities, such as Murcia or La Rioja, have allowed additional tax credits for second homes. Finally, until 1998 a further tax credit was allowed for the purchase of other homes acquired between 1985 and 1990. This was made possible by the decree popularly known as the *Decreto Boyer* which introduced a tax credit, initially 17 percent, for the purchase of homes other than the habitual residence (not only for second homes) provided that the property was a new construction¹².

With regards to renting, the tax incentives have been, qualitatively and quantitatively, much smaller. Incentives for renting homes only existed between 1992 and 1998. Quantitatively, the tax savings of the renting allowance were much less than those granted for purchasing a home. For example, between 1992 and 1995, the rental tax credit amounted to 15 percent of the rent paid and could not exceed an absolute limit of 7,000 pesetas per tax year (approximately 450 euros)¹³.

Table 5. Personal income tax treatment of housing

Item		1978	1991	1998	2002
Investment in habitual residence	Taxation of income	2 % of the value of the home ⁽¹⁾	2 % of the value of the home ⁽¹⁾	----	----
	Taxation of expenses	IBI ⁽²⁾	IBI ⁽²⁾	----	----
	Loan interest	4,808 / 9,616 euros ⁽³⁾	4,808 / 6,010 euros ⁽⁴⁾	----	----
	Loan capital	15 %	15 % ⁽⁵⁾	----	----
	Total expense (own financing)	----	----	15% 9,015 euros limit	15% 9,015 euros limit
	Total expense (borrowed financing)	----	----	First two years ⁽⁵⁾⁽⁷⁾ : 25% / 15% Remainder ⁽⁵⁾⁽⁸⁾ : 20% / 15%	First two years ⁽⁵⁾⁽⁷⁾ : 25% / 15% Remainder ⁽⁵⁾⁽⁸⁾ : 20% / 15%
Housing saving accounts		----	15% ⁽⁵⁾	15% ⁽⁵⁾	15% ⁽⁵⁾
Exemption for reinvestment		Yes	Yes	Yes	Yes
Rental of habitual residence		----	15% ⁽⁶⁾ 450.75 euros limit	----	----
Purchase of other homes		----	10% ⁽⁵⁾	----	----

The areas with a dark shaded background refer to the tax treatment of the residence with respect to the tax base, while the areas with a lighter background shading refer to the tax liability.

Notes: (1) On the cadastral value or by default on the value of the residence for the purposes of other taxes or the price used in the sales transaction (the higher of these values is used) (2) IBI is a local real estate tax on the ownership of residential property and commercial premises. (3) For married couples the limit was 9,616 euros while for other cases the limit was 4,808 euros (4) For individual and joint tax returns, respectively. (5) Limit: 30% of the net tax base (6) Only for taxpayers with a tax base lower than 12,000 euros and whose expenditure on renting is greater than 10% of net revenue. Between 1995 and 1998 the limit rose to 601.01 euros. (7) Tax credit applicable to the first 4,50759 euros (on the sum of the total loan capital and interest). (8) Tax credit applicable to the excess up to 9,015.18 euros (on the sum of the total loan capital and interest).

Table 6. Tax credit for investment in a habitual residence in the 2002 personal income tax statistics

Income bands (thousands of euros)	Number of beneficiaries	Percentage of beneficiaries	Average allowance (in euros)
1. Zero	1,724	0.03	1,035
2. Up to 1.5	7,149	0.14	996
3. From 1.5 to 6	288,924	5.64	628
4. From 6 to 12	1,493,613	29.17	695
5. From 12 to 21	1,739,010	33.96	808
6. From 21 to 30	837,133	16.35	909
7. from 30 to 60	613,068	11.97	1,045
8. from 60 to 150	127,100	2.48	1,224
9. from 150 to 601	12,353	0.24	1,377
10. greater than 601	590	0.01	1,460
Totals	5,120,664	100.00	822

Source: State Agency for Tax Administration

The spectacular growth of housing prices in Spain, the result of the property boom which began in 1998 (and which is still continuing in 2005), has revived the debate about the need to reform the tax rules on housing for income tax purposes. By way of illustration, between 1997 and 2002 alone, housing prices increased by 78 percent. One of the fundamental factors, which appears to be driving the Spanish property market, is the preferential tax treatment given to home purchases. In this respect, recent studies seem to confirm that these tax incentives may be capitalised in the form of higher prices, not by taxpayers but by other economic agents involved in the property market such as builders, developers and financiers. Using this hypothesis, recent modelling of the Spanish situation indicates that the elimination of house purchase tax incentives would reduce prices between 16 percent and 30 percent (see López, 2001). With this outlook, it is not surprising that the reduction and even elimination of tax incentives for house purchases is on the politicians' agenda. The effects of the hypothetical elimination of this income tax credit in 2004 are modelled in Table 7. As we can see, the removal of incentives would increase tax revenues (by

6.82 percent) as well as the redistributive power of the tax, although its progressivity would be reduced¹⁴.

Table 7. Elimination of the tax credit for habitual residences

Results	Effects of the Reform
1. Variation in progressivity (Kakwani index)	-3.47%
2. Variation in redistribution (Reynolds-Smolensky index)	3.59%
3. Variation in the average effective rate	6.82%

Source: authors' analysis

Neutrality with Respect to Savings

Differences in the tax treatment of financial assets lead to changes in investment behaviour through arbitrage processes. These processes are characterised by changes in the composition of the portfolio of savers seeking to maximise the net-of-tax returns. In other words, the tax system distorts taxpayers' decisions about saving when it introduces different tax treatments for different assets. For this reason, neutral treatment of savings has become one of the preferred assessment guidelines for all tax reform processes. During the last two decades, six large-scale modifications of the tax treatment of savings have taken place in 1985, 1991, 1996, 1998, 2000, and 2002. This section analyses the impact of these changes in terms of neutrality. To this end, we describe the tax treatment applied to the most significant financial assets: bank deposits, shares, fixed income instruments, insurance, pension plans and investment funds.

Tax Treatment of Bank Deposits

Bank deposits have traditionally been treated as regular income from investments. The withholding rate has varied considerably, from 25 percent at the outset of the tax reforms in 1978 to the current rate of 15 percent. Apart from changes to the

withholding rate, the tax treatment of deposits has seen significant changes since 1978. The 1991 reform introduced a minimum exempt level for investment income. This exemption remained in force from 1992 to 1998 and its amount was successively increased from 150.25 euros in its first year to 174.29 euros in its last year. The 1998 reform allowed deposits to generate irregular income. This income enjoyed a tax reduction provided that it was accrued in more than 2 years. The reduction coefficient applied following the 1998 reform was 30 percent, rising to 40 percent following the income tax reform in 2002.

Tax Treatment of Shares

Shareholders may be remunerated by dividends and/or capital gains. Dividends are considered to be investment income in the financial year they are received while the sale of shares is taxed as a capital gain at the time of sale. The tax treatment of dividends has had the following specific features:

1. Until the 1991 reform of the personal income tax, different allowances were given for the purchase of stocks and shares. Thus, up to 1987 there was a tax credit which varied between 10 and 17 percent for the purchase of stocks and shares. Similarly, between 1983 and 1987, a tax credit was granted for the purchase of shares by workers in their own company, with the allowances also varying between 10 and 17 percent. Finally, up to the 1991 reform, interest from loans used in the purchase of any kind of fixed or variable income stocks and shares was considered deductible.
2. To avoid the double taxation of dividends, between 1978 and 1994 the tax had a correction system based on tax credits. The percentage deductions were 15 percent up to 1983 and, subsequently, 10 percent up to 1994. Since 1995, the correction system changed to an imputation system with imputation credit equal to 40%.

With regards to capital gains, the personal income tax has traditionally distinguished between short and long-term gains. In general, short term gains mean those generated in a period less than or equal to one year, with the exception of gains generated between 1996 and 2000 when this definition was applied to a two-year period. This distinction is important because the progressive tax schedule is applied to short-term capital gains whereas capital gains classified as long-term are taxed at a reduced rate. This more generous treatment has not been the same over time: up to 1996, a reduced average rate was applied and was obtained by using a capital gains annualisation mechanism, while from 1996 a reduced fixed tax rate was applied. This reduced tax rate has been reduced from 20 percent in the 1996-1999 period to 18 percent in 2000-2002 and to the 15 percent rate in force from 2003. Exceptionally, for tax years 1992-1998, annual small capital gains with a transfer value less than or equal to 3,000 euros were exempt from taxation. In addition to this, a general allowance for saving income valued at 1,202 euros was applicable for financial years 1996, 1997 and 1998.

One of the most significant modifications, and most controversial, to the treatment of capital gains, was the introduction of reduction coefficients in the 1991 reform. As a result, between 1991 and 1996, reduction coefficients were applied to capital gains. Specifically, these percentage reductions, applicable from the second year onward, varied in accordance with the nature of the asset and the number of years of ownership. For quoted shares the reduction coefficient was 5.26 percent. For property, the reduction coefficient was 11.11 percent while for other assets the rate of reduction was 7.14 percent. From 1996, the application of these reduction coefficients was abolished although a transitional regime was put in place for assets acquired before 9 June 1996. Even today, in 2005, this transitional regime leaves substantial

capital gains completely exempt from the income tax. Another peculiarity of capital gains is that, traditionally, they were never subject to retentions. This general rule was broken by the 1998 reform which made it mandatory to impose a withholding on capital gains arising from holdings in collective investment institutions (FIM, FIAMM). Other capital gains remain exempt from withholdings.

Table 8. The treatment of capital gains arising from the sale of financial assets

	1978	1991	1996	1998	2000	2002
Exempt	---	Annual amount lower than 3,000 euros ⁽⁴⁾	Annual amount lower than 3,000 euros ⁽⁴⁾	No	No	No
Updating of the purchase value	Yes	No	Yes	No	No	No
Reduction coefficients for capital gains ⁽¹⁾⁽²⁾	Equal for all property (since 1983)	7.14% general 11.11% shares 5.26% property	No	No	No	No
Compensation of capital gains with ordinary income	Total	No	No	Yes. For capital gains less than 2 years (10% limit)	Yes. For capital gains less than 2 years (10% limit)	Yes. For capital gains less than 2 years (10% limit)
Taxation of short term capital gains	According to schedule (≤ 1 year)	According to schedule (≤ 1 year)	Reduced average rate (≤ 2 years)	According to schedule (≤ 2 years)	According to schedule (≤ 1 year)	According to schedule (≤ 1 year)
Taxation of long term capital gains	Reduced average rate (> 1 year)	Reduced average rate (> 1 year)	20% Minimum exemption 1,202 euros (> 2 years)	20% (> 2 years)	18% (> 1 year)	15% (> 1 year)
Capital gains retention ⁽³⁾	No	No	No	20%	18%	15%

Source: Authors' analysis from González-Páramo (1991), González-Páramo and Badenes (1999, 2000a, 2000b, 2003) and Rodrigo (2002).

Notes: (1) For each year over two years in the taxpayer's wealth. (2) The transitional regime is retained for the reduction coefficients in the 1991 reform (3) Retention for sale of shares and holdings in collective investment institutions (4) This applies to the sales value and not to the capital gain

Tax Treatment of Fixed Income Instruments

The returns generated by any fixed rate instruments have been taxed since 1978 as investment income and therefore charged at the marginal tax rate. However, the tax treatment of the amortisation of these instruments – and by extension, their redemption or conversion – has depended on the form in which they are issued. Specifically, the amortisation of instruments issued at a discount (with and without a coupon) was taxed between 1975 and 1984 as a capital gain. To a large extent, this was due to the fact that the legislation governing the personal income tax was a legal vacuum as it did not explicitly include this type of income (called implicit income) in the definition of investment income. Taxpayers therefore declared them as capital gains since these had a more generous tax treatment. Additionally, the coupons were subject to the appropriate withholding tax while no withholding was applied to the amortisation of the instruments. In fact, the absence of a withholding tax made these instruments, especially those issued at a discount and without a coupon, into opaque assets for tax purposes since the tax authority was deprived of the means of identifying their owners.

This situation was remedied by Act 14/85 on the Tax Regime of Certain Financial Assets, which clearly defined the tax treatment of implicit income and imposed a withholding obligation on financial assets issues at a discount, with the exception of discharged Treasury bills.

The 1991 income tax reform basically followed the provisions of the above-mentioned Act 14/85 although it did introduce some important changes. The most significant was the loss of opacity of the Treasury bills and the AFROS. The latter were financial assets subject to a high withholding (55%), which was much higher than the general rate, in exchange for which the issuer was not obliged to identify the

owner of the asset. The holders of bills and AFROS were offered the opportunity to choose between keeping them until they were amortised in accordance with the initial terms of issue or to exchange them for Special Public Debt instruments whose amortisation date was set in 1997. In practice, this procedure was a controversial tax amnesty offering advantages both to the owners of the instruments and the government itself. Holders who accepted the exchange for Special Public debt continued to enjoy the opacity of the instruments while the income obtained was not subject to income and wealth taxes. This also gave government a transitional means of financing the public deficit at very low cost as the nominal interest rate offered for the instruments was 2 percent while the nominal market interest rate was over 14 percent.

Accompanying this important change, the 1991 reform also introduced a general exemption for investment income and a new category of income described as mixed. Therefore, from January 1992, investment income arising from capital transfers to third parties has been classified in three categories: implicit, explicit and mixed income. Table 9 presents the definition of each of these together with some additional examples.

The 1998 and 2002 reforms retained the treatment of fixed income instruments. However, as previously stated, the 1998 reform introduced a reduction coefficient of 30 percent on income from capital (consequently affecting coupons from fixed income instruments) generated in a period of more than two years. This increased to 40 percent following the 2002 reform.

Tax Treatment of Insurance

Significant changes have been made to the tax treatment of life and disability insurance since 1978. Until the 1998 reform, incomes generated by these financial assets were considered in general terms to be capital gains. The value of the capital -

Table 9. Investment income arising from capital transfers

Income	Examples	Tax treatment
Implicit	<ul style="list-style-type: none"> - Bills - Note without coupon - Any financial asset issued at a discount 	<ul style="list-style-type: none"> - The income is calculated as: Purchase value – Amortisation value
Explicit	<ul style="list-style-type: none"> - Periodic interest from current accounts, loans, fixed income instruments, etc. - Any non-implicit consideration 	<ul style="list-style-type: none"> - Assessed according to their total value including the retention
Mixed	<ul style="list-style-type: none"> - Notes with issue or amortisation premium. 	<p>Treated as explicit or implicit income as appropriate:</p> <ul style="list-style-type: none"> - If the explicit income fixed in the issue conditions is greater than or equal to the reference interest rate⁽¹⁾, then all income is considered explicit for tax purposes. - If this is not the case, all income is considered to be implicit for tax purposes.

Notes: (1) The reference interest rate is set annually in the Finance Act.

gain was assessed as the difference between the benefit received by the insured party and the value of premiums paid. The amounts arising from capitalisation operations, which were treated as investment income, were the exception to this rule. The 1991 reform improved the tax treatment of this income, introducing significant reduction according to the age of the person living off the income. In addition, up to 1998 the premiums paid enjoyed a deduction from the tax liability with a percentage allowance of 15 percent until 1986 and henceforth 10 percent (with a limit of 30 percent of the tax base). Apart from the elimination of this deduction, the 1998 reform introduced big changes in the treatment of insurance bought individually.

1. All income is considered as investment income irrespectively of whether it is received as capital or income (whether for life or temporary). The sole exception is collective insurance taken out by companies and which fulfils a similar function to social security. In this case, the benefits received are taxed as income from work and receive very favourable tax treatment when they are received in the

form of capital. A summary of the reductions applicable to this kind of income is set out in Table 10. As this table shows, collective retirement insurance and benefits for total invalidity are among the lowest taxed benefits.

2. The tax treatment for income tax purposes of individual life and disability insurance depends on the form in which payment is received. As Table 11 shows, if it is obtained in a capital form (one single payment), reduction coefficients are applied which reward the age of the insurance. On the other hand, when the award is as income, its treatment depends on whether it is for life or temporary. If the income is life-long, the amount subject to taxation is smaller the older the age of the recipient, while if it is temporary, the amount subject to tax is larger the longer the number of years that the benefit is received. Finally, there are specific rules for deferred income, whether for life or temporary, and for those cases where the insurance is redeemed before the contingency occurs.

Table 10. Reduction coefficients applied to collective insurance taken out by companies since the 1998 reform

Form of benefit	Income	Period of generation	Reduction
Capital	Pensions and passive investments Public benefits for retirement, incapacity, accident, infirmity or being an orphan. Benefits from general mutual societies for civil servants or orphanages Benefits from social provision mutual societies. Retirement benefits from company collective insurance schemes.	> 2 years	40%
Capital	Invalidity benefits from social provision mutual societies and collective insurance which meet pension commitments entered into by companies.	-----	40%
Capital	Collective retirement insurance schemes	> 2 years > 5 years > 8 years	40% 65% 75%
Capital	Total invalidity or high invalidity benefits received under collective insurance agreements which meet pension commitments entered into by companies.		65%
Capital	Total invalidity or high invalidity benefits received under collective insurance agreements which meet pension commitments entered into by companies, when a period of more than 12 years has elapsed since the payment of the first premium and other premiums have been paid regularly and correctly		75%

Source: Álvarez and Romero (2005).

Table 11. Treatment of life insurance following the 1998 reform

Capital	Calculation of net income (NI)	
	NI (Capital received – premiums paid)* (1-reduction coefficient)	
	Reduction coefficients ⁽¹⁾	
	Retirement or survival benefit	Invalidity
	<ul style="list-style-type: none"> • More than 2 years old 40% • More than 5 years old 75% <p>According to the time when the first premium was paid</p>	<ul style="list-style-type: none"> • 75% if the invalidity is ≥ 65% • 40% for other cases
Immediate income	Calculation of net income (NI)	
	NI = Annuity * percentage for calculating net income	
	Percentage for calculating net income	
	Life-long	Temporary
	<ul style="list-style-type: none"> • Less than 40 years 45% • Between 40 and 49: 40% • Between 50 and 59: 35% • Between 60 and 69: 25% • More than 69: 20% <p>According to the age of the investor at the time the income begins</p>	<ul style="list-style-type: none"> • Greater than or equal to 5 years: 15% • Greater than 5 and less than or equal to 10 years: 25% • Greater than 10 and less than or equal to 15: 35% • More than 15: 42% <p>According to the duration of the income</p>
Deferred income, life-long and temporary	Retirement and invalidity benefits	
	Included in the tax base from the moment they exceed premiums paid or the actual value of income at the time they start to be paid.	
Termination because of redemption of temporary or life-long income	Amount received from the redemption + Income received up to the point of redemption - Value of premiums paid - Amounts taxed as investment income up to that date	

Notes: (1) A reduction coefficient of 75% may be applied in both cases for insurance taken out before 1994 in specific cases.

To conclude, we should point out that some financial products based on insurance operations have been launched in recent years. One of the most popular with investors is unit linked funds because of their tax treatment. A unit linked fund is a life insurance policy linked to a basket of investment funds where the insurance holder invests in accordance with their income-risk preferences. Although

contributions to unit linked funds are not tax deductible, the benefits enjoy the reduction coefficients of collective insurance schemes.

Precautionary Savings: Pension Plans and Alternative Schemes

Pension plans are precautionary schemes complementing the social security system which became operational in Spain in 1987¹⁵. They are, therefore, savings schemes whose purpose is to accumulate long-term capital which, except in the case of serious illness or unemployment of long duration, may only be accessed at the end of an employee's working life. The amounts contributed annually to this savings scheme reduce the tax base with an annual deductible limit which, between 1988 and 1991, was the lesser of two amounts: a fixed amount of 3,000 euros or 15 percent of total income from employment and/or economic activities. During the initial years, when the annual contribution exceeded the limit deductible from the tax base, an additional tax credit of 15 percent of any surplus not deducted from the tax base was allowed. This deduction was subject to a relatively small limit which in the 1991 financial year was 225.37 euros.

Generally speaking, the 1991 reform retained the tax treatment of pension plans although the tax credit was removed. Since 1992, the general absolute and relative contribution limits have been successively increased although in 2003 the relative limit was abolished and a single absolute limit of 8,000 euros per year was established. In recent years, however, two exceptions to the general rule have been introduced. Firstly, from 2000, additional contributions are permitted for disabled dependents or a spouse if he/she has no or very low income. Secondly, from 2003, additional contributions are allowed for employees older than 52 years of age. Therefore, for example, a 65-year old employee could make deductible contributions of up to 24,450 euros.

Table 12. Reduction limit for contributions to pension plans

Year of reform	Annual contribution limits	Additional contributions
1988	€3,000 or 15% employment income ⁽¹⁾⁽²⁾⁽³⁾	-----
1991	€4,507 or 15% employment income ⁽¹⁾⁽²⁾	-----
1995	€6,010 or 15% employment income ⁽¹⁾⁽²⁾	-----
1997	€6,611 or 20% employment income(1) (2)	-----
1998	€6,611 or 20% employment income ⁽¹⁾⁽²⁾	-----
2000	€7,212 or 25% employment income ⁽¹⁾⁽²⁾	- Taxpayers whose spouse does not receive net income from employment or economic activities, or obtains less than €7,212 per year : contributions to spouse's plans: €1,803 per year. - Participants or mutual society members >52 years old: additional 601 euros for each year of age up to a maximum limit of 15,025 euros for 65 years or older
2003	€8,000	- Taxpayers whose spouse without income to include in the tax base or income lower than €8,000 per year can deduce from their taxable base contributions to the a spouse's pension plan up to a maximum limit of €2,000 per year. -Participants >52 years: additional; €1,250 for each year of age up to a maximum limit of €24,250 (65 years or older) -Contributions to pensions plans for individuals with a level of invalidity greater than or equal to 65%: €8,000 per year.

Notes: (1) The percentage limit is calculated against the sum of net incomes from employment and self-employment. (2) Applies to the lower of the two limits (3) When the limit is lower than the contribution, the excess not applied to the tax base will be deductible up to a limit of 15% of the liability.

Source: Álvarez, S. and Romero, D (2005)

With respect to the tax treatment of benefits derived from pension plans, these have traditionally been considered as employment income taxed at the marginal tax rate. However, following the 1998 reform, if a capital benefit was chosen, this would

be taxed as irregular employment income and therefore subject to a 40 percent reduction.

In addition to pension plans, there are other precautionary saving schemes which receive favourable tax treatment: retirement plans and life insurance policies. Retirement plans also provide coverage for contingencies such as death or invalidity. In exchange for regular premiums, the beneficiary receives the insured amount at the termination of the agreement in the event of survival (for example, retirement), or in advance of this date in the case of invalidity or death (in the latter case, the beneficiaries are the heirs). They are completely liquid from the moment the agreement is signed. Secondly, they have a guaranteed minimum income. In contrast, they receive less favourable tax treatment than pension plans as the annual contributions cannot be offset against the personal income tax base. Finally, the benefits received, whether in the form of income or capital, are treated the same as the other life insurance schemes described earlier. In 2003, the so-called insured provision plans were regulated. These cover other contingencies apart from retirement such as total and permanent incapacity and the death of the insured party. The tax treatment of the contributions made to these plans and of the benefits received is similar to those for pension plans.

Tax Treatment of Investment Funds

Dividends received from an investment fund are taxed as investment income, whereas capital gains, or where appropriate, capital losses, which result from the sale of holdings in the fund, are treated as a change in wealth for income tax purposes. The general tax treatment of investment income and capital gains from financial assets has been described in detail in previous sections and so it will not be repeated here. However, some new features have been introduced in recent years which specifically

affect investment funds. From January 1, 1999, capital gains arising from the sale of holdings in investment funds are subject to a withholding. The initial rate of retention was 20%, which was reduced to 18% in 2000 and further to 15% in January 2003. On the other hand, in 2002, the tax arising when a taxpayer sells his holding in one investment fund in order to reinvest it in a different fund was abolished.

Neutrality in the Tax Treatment of Savings

The huge number of rules affecting the tax treatment of savings makes it difficult to assess its overall impact. However, the effective marginal tax rate concept is a tool which makes it possible to assess the aggregate effect of the tax system on the neutral tax treatment of different savings instruments. The generic definition of this measurement for the specific case of financial assets is:

$$tm_{ei} = \frac{r_{bi} - r_{ni}}{r_{bi}} \quad [2]$$

where r_{bi} represents a gross financial income generated by the asset i and r_{ni} is the net income finally received by the saver after paying for taxes. In other words, tm_{ei} quantifies the proportion of financial income generated by an asset i which is paid by way of tax. Following this definition, Tables A3, A4 and A5 in the appendix offer a summary of how effective marginal rates have changed following the above-mentioned reform processes. Using this information, Table 13 summarises the impact of reforms in Spain on the tax treatment of different savings instruments. In general terms, the effective taxation of financial assets has been reduced by the various reforms. However, in the process, the dispersion of effective marginal tax rates has increased and, as a result, the neutrality of the tax system has deteriorated. There are

only two exceptions where neutrality has improved: the treatment of certain assets whose income is deferred for a long time and gains obtained from certain precautionary savings instruments.

Table 13. Tax treatment and neutrality of savings

Effects of the reforms		1991	1998	2002
Tax treatment	Ordinary short-term savings (<2 years)	Increased	-For <1 year reduced -For 1<n<2 reduced only for low incomes	Reduced
	Ordinary medium and long-term savings	Increased	Reduced for bank deposits Increased for sales of shares and investment funds	Reduced
	Precautionary savings	- Reduced pension plan provisions for high incomes	-Reduced pension plan provisions for high incomes	Reduced
Neutrality	Ordinary short-term savings (<2 years)	Worse	Worse	Worse
	Ordinary medium and long-term savings	Worse	- Better for savings >20 years	- Better for savings >8 years
	Precautionary savings	Worse	Moderate improvement	Moderate improvement

Source : Authors' analysis based on González-Páramo (1991) and González-Páramo and Badenes (1999, 2000a, 2000b, 2003).

Horizontal Equity, Progressivity, Regressivity and Welfare

This section reviews the concepts and measurements usually used to quantify horizontal equity, redistributive capacity, and the effects on welfare of the reforms of the personal income tax. In addition, Table 16 summarises the results of the three

large-scale reforms carried out in Spain in terms of revenues, progressivity, redistribution and employment.

Horizontal Equity

Horizontal equity is a concept of fairness related to the equality of tax treatment of taxpayers who are similar in all relevant economic and personal aspects. It is therefore one of the pillars used in the design of personal income taxes. However, the impact of income tax reforms on horizontal equity has received little attention in the case of Spain, the available evidence seems to indicate that the 1991 reform improved the personal income tax horizontal equity (Perrote, 2003), while the 1998 reform may have worsened it by substituting tax credits with deductions from the tax base (Álvarez and Prieto, 2003).

Progressivity and Redistributive Capacity

A progressive tax structure is concerned with distributing liabilities in accordance with the level of taxpayers' incomes. Therefore, the more progressive personal income tax is, the greater the proportion of total tax revenues borne by higher income individuals (Jakobsson, 1976; Kakwani, 1977a). Progressivity is customarily measured using the Kakwani index (Π^K) defined as

$$\Pi^K = C_T - G_x \quad [3]$$

where C_T is the concentration index of tax liabilities and G_x is the Gini index of income before taxes. Similarly, the redistributive capacity of a tax is defined as the proportion of total net income which, through the progressive nature of the tax, is transferred from the high part of the income distribution to the low part of this

distribution. The redistributive capacity of taxes is usually measured using the Reynolds-Smolensky (1977) redistribution index (Π^{RS}) defined as:

$$\Pi^{RS} = G_X - G_{X-T} \quad [4]$$

where G_{X-T} is the Gini index of income after taxes, and as before, G_X is the Gini index of income before taxes. The concepts of progressivity and redistribution are tightly linked as a breakdown of the Reynolds-Smolensky index demonstrates.

$$\Pi^{RS} = \frac{t}{1-t} \Pi^K - D \quad [5]$$

Equation [5] shows that the redistributive capacity of a particular tax structure is determined by the interaction of three factors: its progressivity, its revenue raising ability, and the possible re-ranking effect (D), which may arise as a result of socioeconomic factors other than income.

Table 16 summarises the effects on progressivity and redistribution caused by the tax reforms of 1991, 1998 and 2002. The three reforms have reduced the redistributive capacity of income tax by between 5% and 9%. Progressivity increased by 10% with the 1991 reform, by 15% with the 1998 reform and by another 10% in 2002. However these increases in progressivity were not sufficient to compensate for the high tax revenue costs which have oscillated around 15% in all cases. The revenue impact of these reforms is directly related to the increases in net income from which households have benefited. Specifically, the 1998 reform increased the net income of households by an average of between 2.6% and 3.5% while the 2002 reform led to an increase of around 2%.

Table 16. Summary of the effects of the three large-scale income tax reforms on progressivity, redistribution and welfare

Effects	Reforms		
	1991	1998	2002
1. Revenue	Reduced (13.99%)	Reduced (15% - 17%)	Reduced (14%)
2. Progressivity (a)	Increased (9.19%)	Increased (15.77%)	Increased (9.77%)
3. Redistribution (b)	Reduced (9.19%)	Reduced (6.06%)	Reduced (5.23%)
4. Individual welfare per household and year (c)	---	Increased by 922.0 euros	Increased by 571.0 euros
5. Percentage of winners, neutrals and losers in welfare terms	---	78.4% winners 18.0% neutrals 3.5% losers	77.4% winners 22.3% neutrals 0.2% losers
5. Net income	---	Increased (2.6%-3.5%)	Increased (1.8%)
6. Type of income most favoured	---	Unemployment, salaries and pensions	Salaries, unemployment and investment income
7. Households most favoured	---	Households with children less than 16 years old	Households with children less than 16 years old
8. Households least favoured	---	-Single person <30 years old and >64 years-Single parent families with children <16 years	-Couples < 65 years without children
9. Average reduction in deadweight loss	---	587 euros per year	380 euros per year
10. Impact of supply of work	---	Increased by 88,000 FTE posts (d)	Increased by 24,812 FTE posts (d)
11. Value of λ with inequality aversion parameter equals 0	---	1,067	1,027
with inequality aversion parameter equals 0.5	---	1,118	1,039
with inequality aversion parameter equals 1	---	1,206	1,062

Notes: (a) Kakwani index (b) Reynolds-Smolensky index (c) Equivalent Variation (d) FTE = full time equivalent

Source: Castañer *et al* (1999, 2001), Onrubia (2001) and Sanz *et al* (2004)

The 1998 and 2002 reforms had a particularly beneficial effect on income from salaried employment, people receiving unemployment benefits, and families with children younger than 16 years of age. Single person households and those of couples without dependent children received the least favourable treatment.

Excess Burdens and Effects on Welfare

Taxation reforms change the net wage received by salaried workers. This change in salary may affect both the decision to work and the number of hours worked. One of the measurements customarily used to analyse gains or losses in welfare associated with tax reforms is the concept of Equivalent Variation (EV) proposed by Hicks (1939). This measurement quantifies the monetary value of the changes in utility which a reform causes for the taxpayer. Given the cost function, $e(w, v)$, for a salary w and a reference level of utility v , we get:

$$EV = e(w^0, v^1) - e(w^1, v^1) + (m^1 - m^0) = EV(w) + EV(m) \quad [6]$$

where the superscript numbers 0 and 1 refer to the pre and post-reform situation and m covers any income that is not from wages. From [6] it is possible to determine the variation in the deadweight loss associated with a reform. This is expressed below with R being revenue from the personal income tax:

$$VEG = -\sum_j EV_j(w) - \sum_j (R_j^1 - R_j^0) \quad [7]$$

Quantifying the *social value* of a reform is also very useful. One of the measures customarily used is the proportional increment of original equivalent income (λ), derived from the Atkinson's inequality index A , and defined as:

$$\lambda = \frac{\bar{Y}_e^1(1 - A^1)}{\bar{Y}_e^0(1 - A^0)} \quad [8]$$

where \bar{Y}_e expresses the average equivalent income and the subscripts 0 and 1 represent the values for pre-reform and post-reform tax scenarios. Values of λ above 1 indicate welfare enhancing tax reforms. The results in Table 16 indicate that the 1998 and 2002 reforms increased the welfare of households. The first of these reforms generated an average annual increase of 922 euros per household while the increase in welfare generated by the 2002 reform was on average 571 euros. These gains have affected the majority of the population as may be observed from the fact that more than 75% of households gained in terms of welfare compared to a much lower number who lost out in that reform (0.2%). In terms of whether the reform acted as an incentive or disincentive on the supply of work, the results indicate that the 1998 reform increased the supply of work by 88,000 employment posts to which should be added 24,812 more induced by the 2002 reform. In effect, these increases in the supply of labour generated efficiency gains quantified at 587 euros per year per salaried employee for the 1998 reform and 305 euros for the 2002 reform.

Prospective Reforms of the Spanish Personal Income Tax, Intrinsic Restrictions and Environmental Influences

The nature of the personal income tax approved in 1978 was influenced no doubt by the values on equity and distributive fairness that existed back in the 1970s. By the middle of the 1980s, however, a majority of developed countries had embarked on root and branch reforms of their personal income tax systems. The most common features of these reforms, led by the United States and Great Britain, were the widening of the tax base and the reduction of the formal progressivity of tax schedules. As a result of these reform processes, income taxes in the 1990s were

characterised more widely defined taxable events, lower marginal tax rates and a lower number of tax bands. These modifications were consolidated in the successive reforms of the Spanish tax, leading to a more neutral and simpler tax than the one initially approved in 1978.

In recent years, environmental objectives and the creation of employment have been added to the objectives of neutrality and efficiency (Gago, 2000). This new tendency in taxation in the 21st century will also affect the future development of the Spanish personal income tax. Amongst the new philosophies of taxation, those which stand out the most are the proposals for linear and dual taxation. The first of these models has basically been applied in certain Eastern European countries such as Russia, Ukraine, and the Baltic Countries. The dual taxation model, which arose as a result of what has become known in the literature as the green tax reform, has been applied for some time in countries such as Denmark (since 1987), Sweden (since 1991) and Norway (since 1992). The justification for moving taxation away from income and towards activities that degrade the environment, which is implicit in the green tax reform, is that in so doing society obtains a double dividend: firstly, from the reduction of polluting activities and, secondly, from increased allocative efficiency arising from more neutral income taxes.

It is to be hoped that in coming years Spain will move its personal income tax towards an even simpler and more neutral structure than it currently has, particularly with regards to the treatment of savings. It is very likely that this linearization of the tax, which was already present in the spirit of the 1991, 1998 and 2002 reforms, will be maintained in the immediate future. Particularly if we bear in mind that the Socialist party, in government since March 2004, defended linear taxation in an unprecedented manner when it was in the opposition. However, it is highly unlikely

that Spain will introduce a pure linear income tax. This is fundamentally not because it does not make sense, but rather because the structure of the current personal income tax, albeit much more immune from the privileged treatments bestowed by earlier versions of the tax, still retains special treatment for certain interest groups, who will do everything possible to avoid losing their privileged positions. Nonetheless, although this is not acknowledged by the tax authorities, Spain has been following a pseudo-dual income tax since the beginning of the 1990s, whereby capital income is taxed separately from other income at much lower average rate. For this reason, it would be desirable that if this linearisation-dualisation is to be continued, it should be done in a more transparent and explicit manner than is currently the case.

Another aspect where change may be desirable is the way personal income taxation is used by the Autonomous Communities, as an instrument of joint fiscal responsibility with the central government. Since 1997, the Autonomous Communities have enjoyed legal powers which, until now, they have only used very selectively, with an insignificant distributive and revenue raising impact. The quality and soundness of fiscal decentralization in Spain may be improved significantly if, in the coming years, the Autonomous Communities make greater use of this power than has been the case up to the present time. On the other hand, the economic rationality of tax decentralisation would suggest that Spain should embark upon what has become known as “the second decentralisation” in the immediate future. This process, which is currently being debated, would require powers of expenditure and financing abilities to be transferred from the Autonomous Communities to local tax authorities. Without a doubt, if the second decentralisation process were to be carried out, part of the personal income tax revenue currently in the hands of the Autonomous

Communities should go into the municipal coffers and would probably require the management and administration processes of this important tax to be amended.

Index table

Table A1. Relative weight of current revenues in the period 1975-2001 (%)

Year	Taxes on production and imports	Taxes on income and wealth	Taxes on capital	Social contributions	Interest, dividends and other income	Various current transfers
1975	27.29	17.85	1.00	41.93	5.14	6.79
1976	26.08	18.40	0.84	43.22	4.72	6.75
1977	25.09	18.34	0.75	44.36	4.80	6.66
1978	22.63	20.22	0.70	46.00	4.17	6.28
1979	21.98	21.18	0.64	45.81	3.73	6.65
1980	22.19	23.28	0.62	43.79	3.35	6.78
1981	23.32	22.91	0.66	42.66	4.18	6.27
1982	24.67	21.60	0.53	42.32	4.68	6.19
1983	25.43	23.39	0.46	40.88	4.11	5.74
1984	27.06	24.84	0.54	39.10	3.00	5.46
1985	27.82	24.62	0.60	37.76	3.36	5.84
1986	30.00	23.42	0.53	36.52	3.14	6.38
1987	28.50	27.99	0.55	34.87	2.18	5.91
1988	28.37	28.61	0.67	34.28	2.13	5.94
1989	26.98	31.46	0.61	33.37	2.29	5.29
1990	26.03	31.48	0.61	34.19	2.54	5.15
1991	25.38	31.03	0.50	34.10	3.39	5.60
1992	25.23	30.41	0.53	35.66	3.16	5.02
1993	23.35	29.10	0.60	36.36	5.34	5.25
1994	25.46	28.73	0.73	36.59	3.40	5.10
1995	28.08	28.03	0.92	35.87	4.54	2.55
1996	27.83	28.01	0.95	35.95	4.65	2.61
1997	28.45	28.38	0.98	35.55	3.84	2.80
1998	30.08	27.56	1.00	35.27	3.36	2.73
1999	31.07	27.26	1.02	34.88	3.18	2.59
2000	31.02	27.78	1.06	35.29	2.80	2.06
2001	30.13	27.64	1.04	35.86	3.31	2.02

Source: Spanish National Accounts Office (various years)

Table A2. Relative weight of taxes in the period 1980-2000 (%)

Year	Corporation tax	Income tax	Wealth tax	Inheritance tax	VAT (2)	Taxes on Property sale
1980	5.96	31.65	0.86	0.91	----	0.00
1981	7.88	31.52	0.52	0.88	----	5.36
1982	8.23	28.20	0.47	0.70	----	4.30
1983	8.22	29.95	0.36	0.64	----	3.82
1984	7.71	30.82	0.20	0.76	----	3.58
1985	8.26	29.17	0.19	0.73	----	3.47
1986	9.20	28.50	0.54	0.73	22.94	3.37
1987	11.03	33.55	0.59	0.73	24.39	3.32
1988	10.49	34.13	0.68	0.90	24.17	3.78
1989	13.50	35.25	0.35	0.76	23.92	3.91
1990	14.26	34.55	0.87	0.76	22.37	3.95
1991	12.37	37.21	0.64	0.66	22.21	3.67
1992	10.53	38.54	0.65	0.74	23.17	3.46
1993	9.79	39.32	0.73	0.94	21.45	3.48
1994	8.24	38.44	0.78	1.06	23.29	3.71
1995	9.32	38.13	0.70	0.95	23.39	3.54
1996	9.88	37.75	0.68	0.99	23.64	3.43
1997	12.94	34.50	0.73	1.02	23.65	3.76
1998	12.11	33.11	0.79	0.94	24.16	3.98
1999	13.35	30.76	0.82	0.93	25.74	4.26
2000	14.15	30.36	0.87	1.02	25.82	4.44

Source: Spanish National Accounts Office (various years)

Table A3. Summary of the effects of the 1991 reform on savings Effective marginal rates⁽¹⁾

Financial asset	Average income ⁽²⁾		High income ⁽³⁾	
	1991	1993	1991	1993
Bank deposits	40.9	37.0	74.8	67.0
Treasury letter	35.3	31.7	65.9	58.8
Commercial paper	40.2	36.7	70.8	63.2
Treasury bill	68.7	112.5	68.7	112.5
Tax-exempt bond	9.5	5.6	43.4	35.6
Share: dividend ⁽⁴⁾	66.4	64.0	88.3	88.2
Share: capital gain at 5 years	71.0	67.2	90.9	83.5
at 10 years	66.8	50.6	83.0	52.7
at 20 years	60.7	48.1	71.5	48.1
Investment fund at 5 years ⁽⁵⁾	28.3	24.1	51.6	43.4
at 10 years	23.7	11.2	43.0	19.9
at 20 years	17.3	1.4	31.2	1.4
Pension plans: capital ⁽⁶⁾	-1.0	-1.1	4.9	-1.9
income ⁽⁷⁾	-5.8	-7.1	-4.3	-12.0
Life insurance: capital ⁽⁶⁾	6.7	0.0	16.4	0.0
income ⁽⁷⁾	4.0	6.1	11.0	10.9

Notes: (1) Assumes nominal profitability of 11% and a 3% inflation rate. (2) 23,138 euros (3) 57,396 euros. (4) Shares officially quoted on the stock exchange (5) The income is obtained as a capital gain. (6) The income is obtained entirely at the retirement date. (7) The return is received as an income in the 15 years following retirement.

Source: González-Páramo (1991)

Table A4. Summary of the effects of the 1998 reform on savings Effective marginal rates⁽¹⁾

Financial asset	Average income ⁽²⁾		High income ⁽³⁾	
	1998	1999	1998	1999
Bank deposit at 1 year	43.7	38.5	75.9	64.9
at 3 years	32.2	25.6	56.7	43.1
at 5 years	28.9	24.3	50.9	40.9
Treasury bills	42.8	37.9	75.0	64.3
Treasury bonds and notes (coupon)	43.7	38.5	75.9	64.9
Tax-exempt bond	12.4	7.4	44.5	33.8
Share: dividend ⁽⁴⁾	52.9	48.3	82.1	72.4
Share: capital gain at 1 years	76.0	72.7	96.8	89.9
at 5 years	58.4	63.2	58.4	63.2
at 10 years	56.5	60.8	56.5	60.8
at 20 years	54.2	57.1	54.2	57.1
Investment fund at 1 year ⁽⁵⁾	43.8	39.6	75.6	65.7
at 5 years	20.4	25.9	20.4	25.9
at 10 years	18.1	23.0	18.1	23.0
at 20 years	15.1	18.4	15.1	18.4
Life insurance and unit-linked funds at 1 year	42.8	38.8	75.0	65.2
at 5 years	19.3	24.5	19.3	41.1
at 10 years	17.0	9.2	17.0	15.5
at 20 years	1.8	7.3	1.8	12.3
Pension plans: one-off capital bonus ⁽⁶⁾	-11.4	-9.7	-18.1	-18.4
solely income bonus ^{(6) (7)} :	-3.4	2.3	-0.2	0.7
Alternative schemes to pension plans	4.8	6.6	26.9	10.4
one-off capital bonus ⁽⁶⁾				
solely income bonus ^{(6) (7)}	10.8	21.9	40.1	34.8
Life-retirement insurance one-off capital bonus ⁽⁶⁾	3.1	6.6	12.8	10.4
solely income bonus ⁽⁶⁾	1.5	8.9	21.1	14.1

Notes: (1) Assumes nominal profitability of 5.5% and a 1.5% inflation rate.. (2) Shares officially quoted on the stock exchange. (3) 21,035 euros. (4) 72,121 Euros (5) For Property Investment Funds (6) For an individual saving for 40 years and making contributions of 5% of his annual income until retirement. The investor hopes to obtain income for 25 years following retirement. The income obtained when he retires fall by 20% of income during his working life (7) The return is received as an income for 15 years following retirement.

Source: González-Páramo and Badenes (1999)

Table A5. Summary of the effects of the 2002 reform on savings Effective marginal rates⁽¹⁾

Financial asset	Average income ⁽²⁾		High income ⁽³⁾	
	2002	2003	2002	2003
Bank deposit at 1 year	42.0	41.4	70.7	66.2
at 3 years	27.8	23.1	46.7	37.2
at 5 years	26.3	21.9	44.2	35.1
Treasury letter	44.2	40.8	69.9	65.6
Treasury bonds and notes (coupon)	42.0	41.4	70.7	66.2
Tax-exempt bond	8.1	1.8	36.8	32.4
Share: dividend ⁽⁴⁾	52.8	52.2	79.0	74.7
Share: capital gain at 1 year	79.3	79.0	98.0	95.1
at 5 years	65.1	62.6	65.1	62.6
at 10 years	60.1	58.1	60.1	58.1
Investment fund at 1 year ⁽⁵⁾	43.2	36.8	71.6	67.0
at 5 years	25.3	21.7	25.3	21.7
at 10 years	22.3	18.8	22.3	18.8
Life insurance and unit-linked funds at 1 year	42.3	41.4	71.0	66.2
at 5 years	26.4	22.2	19.1	35.5
at 10 years	8.2	8.1	13.8	12.9
Pension plans: one-off capital bonus ⁽⁶⁾	-9.7	-9.5	-16.6	-15.3
solely income bonus ⁽⁶⁾	2.5	2.1	4.3	4.0
⁽⁷⁾ :				
Alternative schemes to pension plans	8.1	5.7	13.7	9.1
one-off capital bonus ⁽⁶⁾				
solely income bonus ^{(6) (7)} :	22.8	22.6	12.2	36.3
Life-retirement insurance one-off capital bonus ⁽⁶⁾	6.8	5.6	11.5	9.0
solely income bonus ⁽⁶⁾	25.2	24.8	39.8	39.7
⁽⁷⁾ :				

Notes: (1) Assumes a real return of 4%. (2) Shares officially quoted on the stock exchange. (3) 23,000 euros. (4) 80,000 euros (5) For Property Investment Funds (6) For an individual saving for 40 years and making contributions of 5% of his annual income until retirement. The investor hopes to obtain income for 25 years following retirement. The income obtained when he retires falls by 20% of income during his working life (7) The return is received as an income for 15 years following retirement.

Source: González-Páramo and Badenes (2003)

Notes

1. Extraordinary War Levy.
2. General Levy on Income.
3. Reform of indirect taxation was more staggered: excise duties on specific consumption were introduced in 1979 and VAT in 1986.
4. For an in-depth study of the financing and expenditure transfer system in the Autonomous Regional Governments, see the chapter in this book by López Laborda and Monasterio.
5. Special arrangements apply to the cities of Ceuta and Melilla and the Autonomous Regional Government of the Canary Islands, although they can be considered as part of the Common Regime.
6. Irregular income is any type of income generated in a period longer than a year. However, the length of time to be considered irregular income depends on the specific Act in force and it changes from time to time. This type of income is normally taxed following special rules.
7. Nonetheless, some people – both in the academic world and in government– have always argued that married couples' income should be taxed jointly. Their case is based on the scale in consumption arising from a couple living together. However, these advocates ignored that a couple living together outside of marriage was becoming more common in Spain. This meant that the tax would in effect penalize married couples over unmarried ones.
8. By way of illustration, the unemployment rate in Spain just after the 1998 reform was 15.7%. However, in March 2004, this rate was reduced to 11.1%. This rate was still higher than the 8.8% average in the euro zone and much higher than countries such as Luxemburg (4.1%), Ireland and Austria (4.5%), the Netherlands (4.7%) or the United Kingdom (4.7%). However, during recent years this differential has reduced significantly and unemployment rates are far removed from the levels of 1995, for example, when the unemployment rose above 25%.
9. In addition, joint tax returns generated clear problems of horizontal equity. The reason is that two women with the same gross salary would have a different net salary depending on the husband's level of income.
10. Additionally, between 1991 and 1998, capital gains from the sale of a habitual residence by people older than 65 years of age were exempt provided that the consideration received by these people was a life-long income.
11. A transitional system, which is still in existence, was introduced for homes bought before this date. This transitional system is more regressive than the tax treatment of housing before 1998 (Onrubia, Romero and Sanz, 2004).
12. Royal Decree-Act 2/1985, of 30 April, on Economic Policy Measures.
13. This deduction has again been introduced in some Autonomous Communities. For example, in the Community of Madrid for taxpayers younger than 30 years of age.
14. This simulation was performed using the personal income tax micro-simulator developed by Sanz et al (2004).
15. Act 8/1987, of 8 June, on the Regulation of Pension Plans and Funds

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