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February 6, 1995

To: Members of the Executive Board

From: The Secretary

Subject: *Spain - Selected Background Issues*

        This paper provides background information to the staff report on
the 1994 Article IV consultation discussions with Spain, which was
circulated as SM/95/15 on January 23, 1995.

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INTERNATIONAL MONETARY FUND

SPAIN

Selected Background Issues

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Approved by the European I Department

February 2, 1995

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1. **Introduction**

    Expenditure on the two main branches of social security in Spain--pensions and health care--expanded significantly during the 1970s and has recently risen further (Chart 1 and Table 1). The initial growth of social security expenditure was motivated by the new aspirations of the population, following the transition to a democratic regime. The financial consequences of this growth, however, are large and have only partially been addressed by reforms introduced since the mid-1980s. The main issues currently facing the pension and health care systems entail both deepening the earlier reforms and putting the social security system in a position to face the coming demographic changes. The financial pressures on the health-care system are more immediate than those on the pension system and the impact of health-care expenditure on the central government deficit is *more direct, because the public health care system is largely financed by* transfers from the central government. The ballooning of health-care expenditure in Spain--owing to the aging of population and more sophisticated and expensive medical techniques--has to some extent paralleled the experience in other developed countries. In Spain, however, *it has been aggravated by regulations on services (such as on pharmacies)* and labor (such as doctors), and by the universalization of services. The 1986 General Health Act established health care as a universal right. As such, it was to be financed out of general revenues. The 1989 Budget Law formalized this principle by establishing a mechanism of transfers from the central government. In 1995, these transfers will reach 3.7 percent of GDP, corresponding to about 80 percent of the deficit of the central government.

    The main challenge to the pension system, on the other hand, will take place in the future, when the current slowdown of the birth rate and the increase in life expectancy will translate into a more aged population. As a result of that increase in the ratio of old-age persons to workers, contributions necessary to sustain the current level of benefits and coverage, on a pay-as-you-go basis, would have to be much higher than at present. Such a change could be made less abrupt through early changes in some key parameters ruling the public pension system and the beginning of pre-funding its liabilities. 2/ Because of the magnitude of these changes, and their impact on the welfare of the generation currently working, it is very important that they are discussed as soon as possible. An analysis of the long-term trends and the consequences of choices made

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1/ Prepared by J. Levy.
2/ Spain already has a legislation permitting the organization of private pensions funds and, hence, this issue is not discussed here. The 1993 National Financial Accounts indicate that pension plans' reserves amounted to close to Ptas 4 trillion (7 percent of annual GDP). As an example of the continuous attention to the matter, the Government has recently presented a bill requiring firms to take pension assets out of their balance sheets.

today will certainly increase the confidence of participants-contributors in their pension systems.

Table 1. Spain: Social Security Finances

(As percentage of GDP)

| Year | Revenues | | Expenditure | | |
	Contrib.	Transfers	Pensions	Health	Other
1986	9.3	2.9	7.4	3.6	1.5
1987	9.3	3.0	7.3	3.6	1.6
1988	9.2	3.1	7.3	3.7	1.6
1989	9.5	3.3	7.4	4.0	1.6
1990	9.7	3.4	7.5	4.2	1.8
1991	9.9	3.5	7.7	4.2	2.1
1992	10.4	3.8	8.0	4.9	2.3
1993	10.8	4.1	8.7	5.0	2.3
1994	10.5	4.2	8.9	4.7	2.1
1995	10.5	4.4	9.2	4.7	1.7

Source: Ministry of Finance.

This chapter attempts to provide an overview of the social security system in Spain, its role in the process of consolidating the government finances in the short- and medium-term, and to present possible measures to address the policy challenges of the longer term. The chapter is organized as follows. An analysis of the finances of the social security system is presented in section 2. Section 3 provides a description of the main features of the pension system and projections of its financial situation in the long run. These projections aim at illustrating the effects of the anticipated increase in the ratio of pensioners to working population and the scope of partially funding the liabilities of the public pension system. Section 4 discusses the features of the health-care system, pros and cons of financing public health care through taxes, and alternatives to reduce the burden on transfers out of general revenues, while avoiding increases in social security contributions. The main conclusions are summarized in section 5.

Chart 1–1: SPAIN

Total Expenditure on Social Security

(percent of GDP)

espexpss
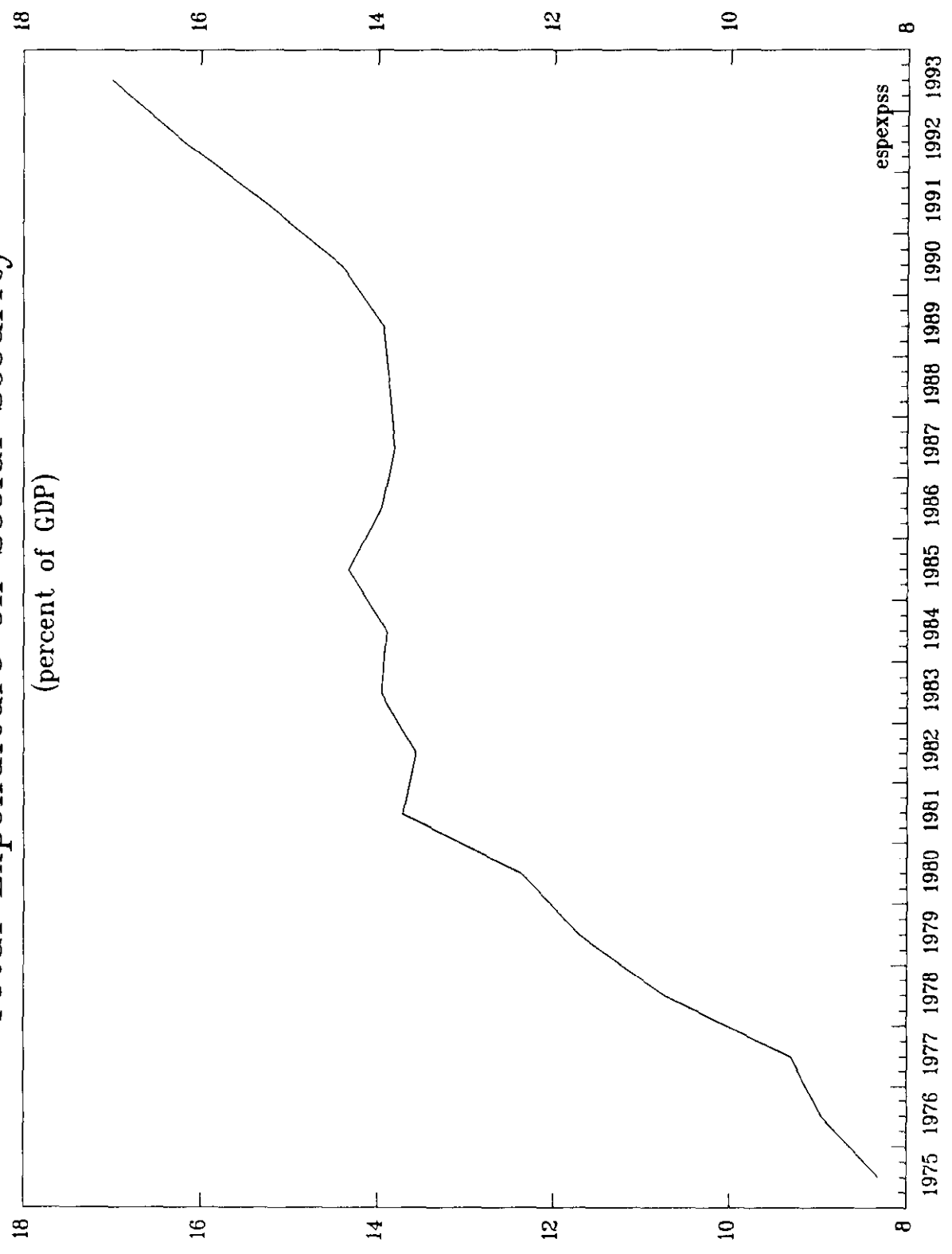
Source: OECD

2.   The financing of the social security system and the fiscal balance of
     general government

     The expenditure on social security in 1995 will correspond to one third
of general government expenditure and a little more than one sixth of
GDP. 1/ Contributions will finance 60 percent of the expenditure;
transfers from the central government will finance most of the rest. 2/
Resources transferred or lent by the central government to the social
security system will amount to 5 percent of GDP. The importance of social
security finances to the general government balance is also reflected by the
fact that the amount of revenues raised by social security contributions
exceeds that raised by income taxes. Amounts raised through another
important tax, the VAT, are of about the size of health care expenditure
alone.

     Currently, the amount raised by social security contributions is
equivalent to the expenditure on pensions, but a part of these contributions
(amounting to about 1.0 percent of GDP) is used to help finance expenditure
on health care (Table 2). General taxes finance the balance of health care
expenditure, as well as supplements for low pensions and benefits to the
handicapped and those of age over 65. Although the increasing transfers
from the central government have been contemporaneous with successive
increases in the VAT rate, this tax is not earmarked for that purpose.

     The arithmetic of the social security accounts is such that
contributions at the existing rate could fully finance all wage-related
pension expenditure--including the administrative cost of the pension system
and the supplements to low pensions. 3/ Such a redirection of resources
would, of course, imply that an additional 1 percentage point of GDP in
health-care expenditure would have to be tax financed. At almost 5 percent
of GDP, health care expenditure represents by itself an important item of
government expenditure. Trimming those outlays, or finding new source of
revenues to fund them, can, therefore, play a fundamental role in the
process of fiscal convergence pursued by the Government. An increase of
1 percent of GDP in government revenues--used to finance health care and to
free resources to fund other government commitments--would be instrumental
to reduce the government deficits to levels more compatible with the

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     1/ More precisely, 36 percent of the consolidated budget of the Central
Administration (the budgets of Territorial Authorities have not been
approved yet, but should correspond to about 10 percent of the general
government budget) and 15.6 percent of GDP.
     2/ Other resources (e.g., capital income) correspond to less than
2 percent of total social security revenues. The 1995 budget also projects
a deficit of 0.6 percent of GDP, to be financed by a loan from the central
government.
     3/ As the economy recovers, it is probable that contributions will in
fact grow faster than these expenditures; in this case, they would generate
a small surplus to the pension system.

Maastricht criteria. Such strengthening in revenues might be achieved by raising social security contributions. Following this course might, however, be disadvantageous to economic growth; instead a broadly based direct tax would be more desirable.

Contributions to social security are divided in two classes: basic contributions and contributions to occupational insurance. 1/ The contribution rate to social security has fluctuated over time, being lowered in the early 1980s and increased afterwards. The basic rate stands at 28.3 percent, computed as a share of wages up to three times the professional minimum wage. 2/ Because of the small dispersion of minimum wages across professions and of the ceiling on individual contributions, the top annual contribution (that of engineers and other employed professionals) is less than 5.5 times the lowest contribution--implying that contributions to the social security are in fact a regressive payroll tax. 3/ In addition, although social security contributions are not particularly high in Spain, they fall only on labor and are thus a factor depressing the demand for this factor. These considerations suggest that, if new revenue sources for the social security system are necessary, mechanisms other than an increase in contributions should be sought.

1/ The occupational-risk insurance is run by the social security and mutual groups (mutuas) formed at the level of firms and industries. Other contributions from labor (payroll taxes) are for the unemployment insurance (7.8 percent), technical training (0.7 percent) and FOGASA, the compensation fund for workers of bankrupted firms (0.4 percent). These programs, however, are not managed by the social security system.

2/ Employers pay 23.6 percent of wages as contribution (84 percent of total contribution) and the remainder is paid by employees. The rate was reduced by 1 percentage point in January 1995. Rates on overtime work are between 50 percent and 100 percent higher than on normal hours depending on the cause of the overtime. The State contributes to social security on behalf of the unemployed.

3/ In 1994, the maximum and minimum bases for contributions by engineers were Ptas 0.35 million a month and 0.11 million a month, respectively. Reflecting the small dispersion of minimum wages across professions, the lowest bases ranged between Ptas 0.07 million a month and Ptas 0.11 million a month. The rate applied in every case was the same.

Table 2. Spain: 1995 Social Security Budget

	In billions of pesetas	Percent of GDP
Revenues	10,849	15.6
Contribution-based revenue	7,310	10.5
Social security contributions	7,200	10.4
General regime	5,213	7.5
Other regimes	994	1.4
Occupational risk insurance	458	0.7
From INEM on behalf of the unemployed	535	0.8
Other revenue 1/	110	0.2
Noncontribution-based revenue	3,539	5.1
From government	3,489	5.0
Transfers	3,088	4.4
Loan	402	0.6
Other revenue	50	0.1
Expenditure	10,849	15.6
Contribution-related expenditure	7,154	10.3
Contribution-related pensions	6,177	8.9
Temporary disability pensions	533	0.8
Family allowances	55	0.1
Other 2/	389	0.6
Noncontribution-related expenditure	3,695	5.3
Health services 3/	3,223	4.6
Noncontributive pensions	178	0.3
Family allowances	43	0.1
Social services 4/	251	0.4
Memorandum items:		
Contributions		
To health	670	1.0
Government transfers	3,088	4.4
To health	2,494	3.7
To complement minimum pensions	232	0.3
To social services and other		
noncontributive expenditure	323	0.5
Noncontributive pensions	234	0.3

1/ Fees and fines.
2/ Administration cost of non-health benefits, maternity
leave, payments due to occupational risk (mutuas) and the Navy.
3/ Excludes costs of occupational risk insurance.
4/ Services for the handicapped, the aged and other vulnerable
groups.

3. The pension system

a. Main features

(1) Development and coverage

The pension system in Spain evolved from a variety of regimes established at different times since the beginning of the century. As in many other countries, these regimes differed widely. Many were pre-paid, but poorly funded, and all were hard hit by changes in the economic environment.

The system has been reformed four times in the last 30 years. The first reform followed legislation issued in 1963, taking effect in 1967. It converted almost all regimes to a pay-as-you-go system, improved some pensions, but made the financing of social security systematically dependent on government transfers by setting contributions at low levels. In 1972, the second reform made contributions proportional to wages, while loosening eligibility criteria significantly. A third reform, beginning in 1977, attempted to harmonize the many regimes existing and to provide them with an integrated administration. The differences in the value of the pensions paid by distinct systems were reduced (generally by increasing the lower pensions), and the administration of the pension system was put under the newly created National Social Security Institute (INSS). The ensuing expansion in coverage and increases in the real value of pensions raised the financing needs of the system so sharply that a fourth reform became necessary. In 1984-85, there was a tightening of eligibility criteria for disability pensions and a lengthening of contribution periods to obtain pensions and an increase in the number of years of salary considered when computing the wage-related pensions.

Currently, the system comprises six basic regimes and the occupational-risk insurance regime. 1/ The number of pensioners in all regimes increased from 3.8 million in 1977 to 6.8 million in 1994 (Chart 2, top). This increase reflected both the broadening of eligibility criteria and the aging of the population. The share of the population more than 65 years of age increased from 11.3 percent in 1980 to 14.8 percent in 1993; the corresponding increase in the pensioner per worker ratio exceeded two thirds
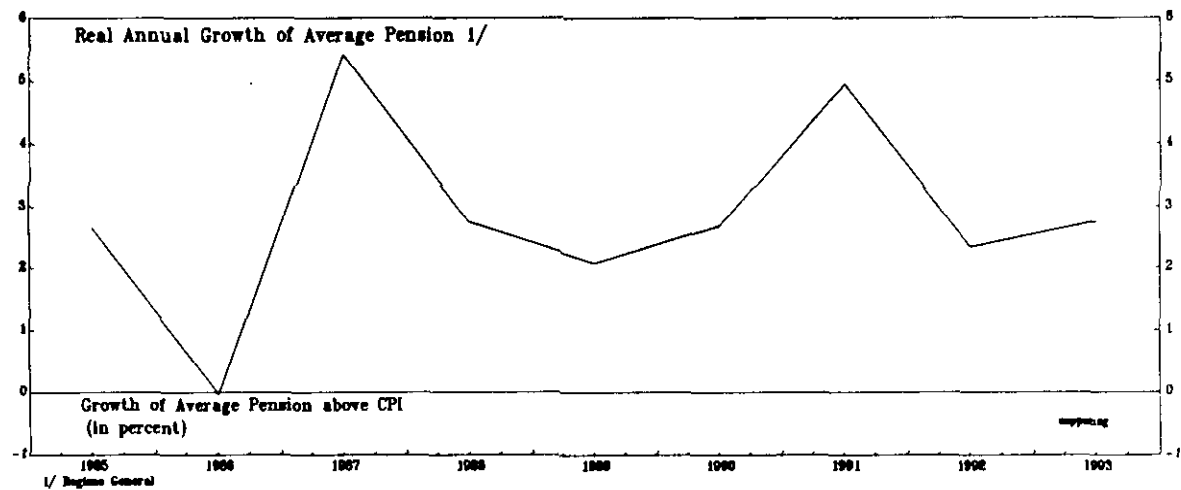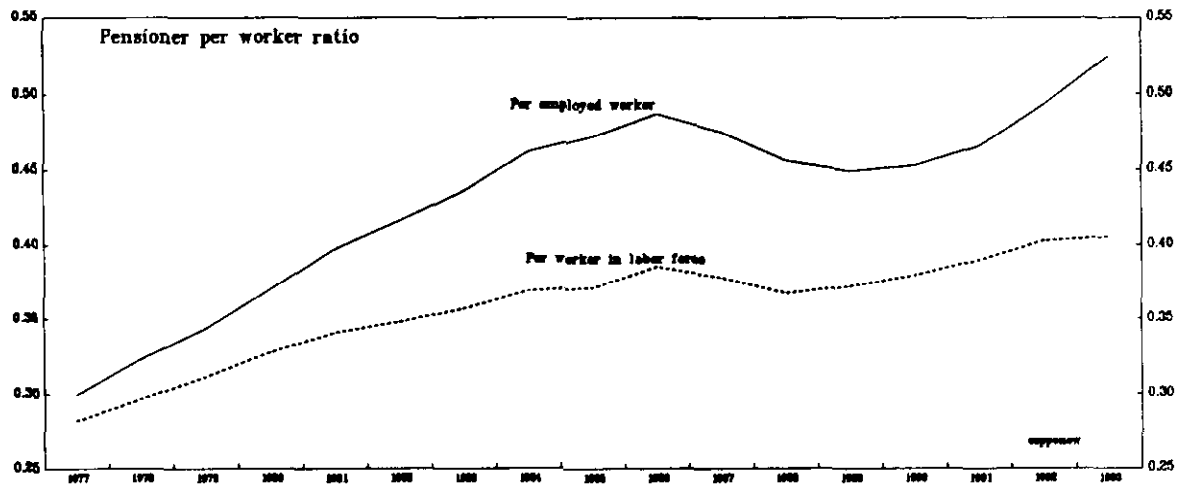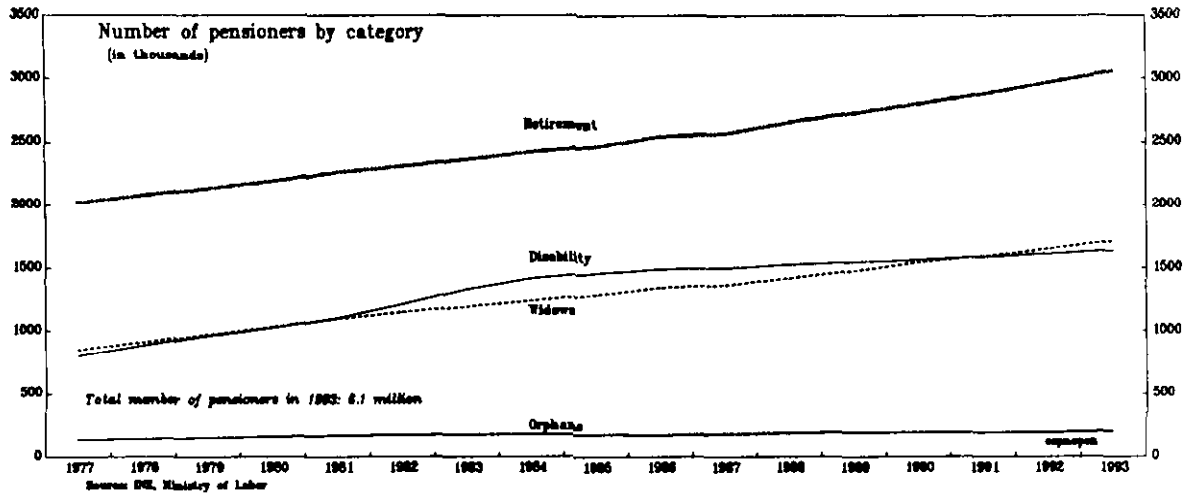

1/ The basic regimes are the general regime, the regime for workers in the agriculture, the miners' regime, the seaworkers' regime, the household workers' regime and the self-employed's regime.

Chart I-2

SPAIN

Selected Characteristics of the Pension System, 1977-93

from 1977 to 1993, to 0.53 (Chart 2, middle). 1/ Among the current basic regimes, the general regime is the which coverage has expanded most significantly since 1977, in part due to the incorporation of several small regimes (e.g., bullfighters, soccer players). 2/ The general regime currently covers about 70 percent of participants in the social security system and half of the total number of pensioners (Table 3). The regimes for the self-employed and agricultural workers cover another 35 percent of the pensioners. Only the general regime and the regime for the self-employed are expected to have a growing number of participants in the future.

Table 3. Spain: Number of Pensions and Contributors

(In millions)

	Pensions	Contributors
General regime	3.40	8.44
Other regimes	3.41	3.69

Source: INE (Instituto Nacional de Estadística).

The characteristics of benefits offered by the system are not unusual among European countries, except for the number of years of contributions and the retirement age. The standard retirement age is 65 years. 3/ Entitlement to a pension under the general regime requires 15 years of

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1/ Sluggish employment growth in period and the low participation rate of the population of age 16 to 65 also contributed to the increase in this ratio. The participation rate in Spain stands below 50 percent of the population in Spain, contrasting with the rate of, for instance, France, which stands above 55 percent. As a result of the higher participation rate, the dependency ratio there is around 10 percentage points below that in Spain, although in France the social security is well developed and the population over age 65 is nearly as high as in Spain, corresponding to 14.5 percent of the total population.

2/ The last integration was in 1993, and few new integrations are expected in the future.

3/ Early retirement is permitted in special cases, in particular for those who started to contribute before 1967, but in principle implies a reduction of 8 percent of the value of the pension for each year before 65. Early retirement resulting from collective layoffs are regulated by special legislation.

contributions, including the two years immediately before retirement. A full pension is granted after a contribution period of 35 years, being reduced by about 2 percent for each year short of that full career span. Surviving spouses get 45 percent of normal pensions, if the principal deceased before retirement, and 60 percent if after retirement. The value of the pension is proportional to the wage-based contributions in the last 8 years prior to retirement (adjusted by the CPI) and to the number of years of contributions. In 1994, the minimum annual retirement pension was Ptas 0.8 million (around US$6,500) for married pensioners above 65 years of wages, and Ptas 0.7 million for those married below 65 years of age. The latter is approximately the value of the minimum wage, adjusted for taxes.

Compared with other European pension systems, the minimum retirement age is relatively higher, but the contribution period is short. Although perhaps reasonable in the past, when coverage was still increasing, such a short contribution period is now more of a disincentive for continuous payment of contributions than an instrument for social justice. On the other hand, a high retirement age penalizes those who started to work earlier, a situation that would be worsened if the retirement age were raised. Instead, a lengthening of the contribution period could reduce the number of new pensioners, while not discriminating against those entering the labor force earlier.

b.   **Financing**

The financial requirements of the pension system reflect basically the systematic increase in the real value of pensions in the last 10 years. The *average value of pensions at constant prices increased by about 2 percent* per year in real terms over the last 10 years (Chart 2, bottom). Compounded with the growth in the number of retirees, it meant that the share of GDP spent on pensions has steadily increased in the last 10 years, reaching *9 percent in 1994. As noted, contributions are currently enough to cover* the so-called contributive benefits, i.e., wage-proportional retirement pensions and family allowances, temporary disability pensions, and occupational-risk insurance.

Supplementary transfers from the Government to guarantee minimum pensions have increased significantly over the years, reflecting the policy of raising and harmonizing minimum pensions. 1/ Currently, about 30 percent of retirement pensions and 40 percent of the widows' pensions benefit from some supplementary benefit. However, because in many cases the difference to be covered is not very wide, the supplementary outlays ("complementos por minimos") correspond to less than 4 percent of total pension payments (i.e., about 0.3 of GDP). Government also finances pensions to the old aged who do not belong to any of the pension regimes and

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1/   In the 1986-90 period, minimum pensions increased 15 percent more than standard pensions.

to the handicapped. 1/ In 1995, the resources assigned to these pensions amount to 0.3 percent of GDP.

c.   Problems, reforms, and outlook

In the past, the main problems of the pension system have been fraud and the rapid growth in the number of disability pensions. 2/ These problems have been tackled and have put the pension system in a relatively strong position to face the demands of the next few years. The measures taken in the 1980s to correct the trend on the permanent disability pensions and those recently taken to address the problem of temporary disability pensions (described below) illustrate the ability of the system to adjust to changing conditions and are encorageous signals that the greater challenges to be faced after the year 2000 can also be met with success.

The number of permanent disability pensions swelled in the late 1970s, especially in the general regime, because the number of years of contribution permitting a full disability pension was very small. 3/ This lead to curious situations. For instance, in the early 1980s, the proportion of disability pensions was higher in the general regime than in the regime of bullfighters (Chart 3, top). 4/ After the tightening in eligibility effected by the 1984 reform, the annual growth rate in the number of disability pensions fell from 6.6 percent to less than 3 percent in 1985 and

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1/ *Following the 1990 Social Insertion of the Handicapped Act (LISMI),* pensions are gradually falling under the responsibility of INSS, instead of the social service arm of the social security (INSERSO).

2/ During the previous economic slowdown, fraudulent bankruptcies, involving the default of past social security payments, became a fairly widespread practice for firms facing financial difficulties. The practice, however, has been combatted and was significantly reduced in recent years, and the problem of fraud is not discussed here, except in the context of lax enforcement of eligibility criteria for disability pensions.

3/ Until 1995, there were three types of disability pensions: a transient (incapacidad laboral transitoria, ILT), a temporary (invalidez provisional) and a permanent. These pensions cover both occupational and non-occupational disabilities. As explained below, the first two benefits were merged in January 1995. The value of permanent disability pensions is reduced if the worker is handicapped for the former profession, but not for other jobs, but it is increased if the worker is older than 55 years--making a disability pension sometimes more attractive than a retirement pension. Because, before 1985, the minimum period of contributions was 5 years, there were strong incentives to seek a disability pension. In 1985, the minimum period was increased to 8.75 years for those 55 years old and 11.25 years for those 65 years old.

4/ The statistics suggests that a larger fraction of matadores were entitled to old-age pensions (instead of physical disability pensions) than that of average workers, despite the physically dangerous occupation the former had; the proportion of widow's pensions was similar in both regimes.

about 1.2 percent by 1994. Despite this improvement, the INSS projects that, in 1995, disability pensions will account for 25 percent of all pensions.

The transient and temporary disability pensions created another sort of problem. Expenditure on the first type of pension, which is actually a sick leave paid by the social security system, increased by 20 percent in 1990-91. This is not unique to Spain, because firms in many countries have strong incentives to promote sick leaves when the economy weakens. Legislation establishing that the ILT would be paid only after the 16th day of leave was issued in 1992, and in 1993 the (nominal) increase in expenditure for transient disability pension was limited to 5.3 percent. Temporary disability pensions, which are provided during a waiting period before an applicant becomes entitled to a permanent disability pension, were perceived as offering more lenient conditions than permanent disability pensions and hence often fully used. The waiting period before a final decision on eligibility for a permanent disability pensions could extend to up to 6 years, creating not only costs to the social security, but problems in the labor market (because while on temporary disability, the worker kept the right to return to his position in the firm). Legislation taking effect in 1995 merged the two types of pensions into a single temporary disability pension (incapacidad temporal) lasting no more than two years. In addition to an abatement in the future growth of expenditure, a modest reduction in its level is expected from this measure. Finally, the decision of granting a disability pension was shifted from employers and employees to newly created boards under the control of the social security system. 1/ This is expected to lead to a better medical screening.

More generally, the short- and medium-term outlook of the pension system is favorably impacted by the moderation in the number of new retirees in the coming years, due to the effects of the 1930s civil war on natality and infant mortality (Chart 3, bottom). In addition, the very abatement in the growth of disability pensions achieved since the 1984 reform has contributed to the more subdued increase in the number of retirees in recent years. This scenario will be modified, however, after the year 2000 by demographic changes. The consequences of the future demographic changes are analyzed in some detail in the following paragraphs.

4. Long-term financial prospects

The long-term financial situation of the social security will depend on the demographics of the next century and on the dynamism of the labor market. The so-called "baby-boom" took place in Spain some 10-15 years after the rest of Europe (lasting until the early 1970s). Therefore, the slump in the proportion of working-age people in total population will take place only after 2020 (Chart 4). Changes in the labor market itself can

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1/ The administration of the mutuas (intermediary bodies managing the occupational risk insurance) was also reformed.

SPAIN

Pension Regimes and Demographics

Distribution of types of pensions across regimes, 1983

Regime General   Bullfighters   Agricultural Workers   Self Employed

■ Retirement ⊞ Disability   ⊞ Survivor

Source: INE

Age Distribution of the population, 1993

Chart I-4
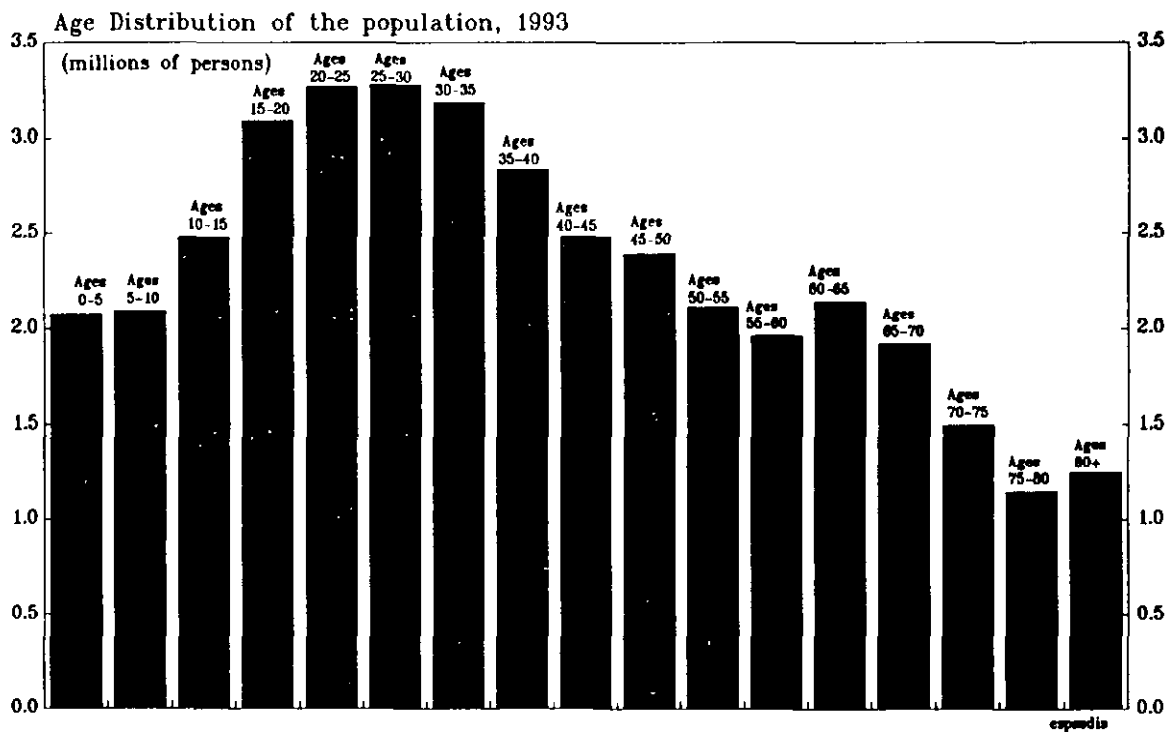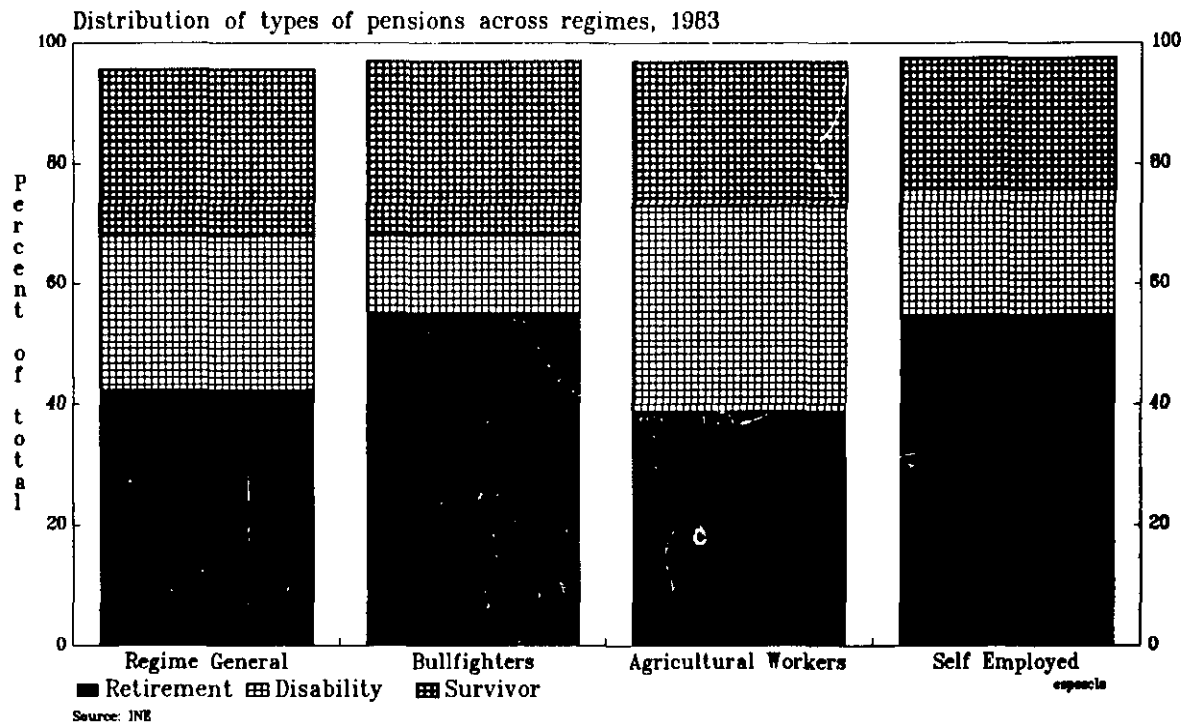
SPAIN

Projected Demographic Situation of the Pension System, 1995-2055

Projected age distribution (in thousands)

Source: INE, Staff estimates

Workers to working age population ratio (in percent of working age population)

Increasing participation

Participation by ages - 1990 levels

Pensioners to worker ratio (in percent of working age population)

Participation by ages - 1990 levels

Increasing participation
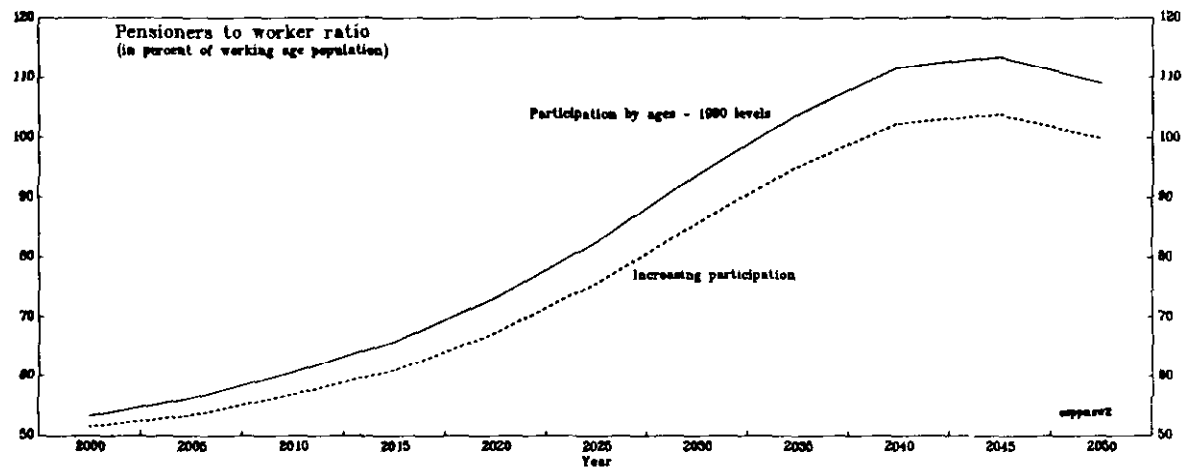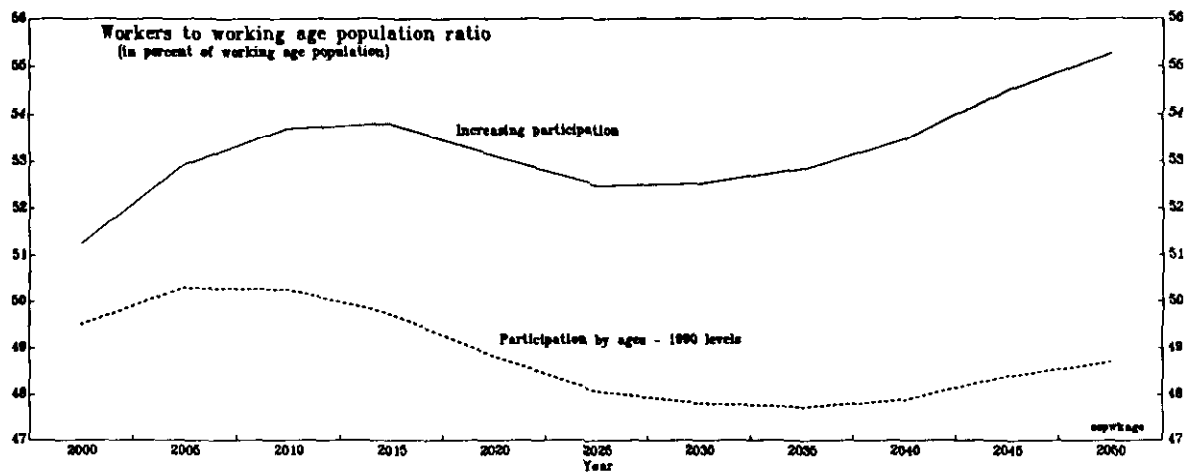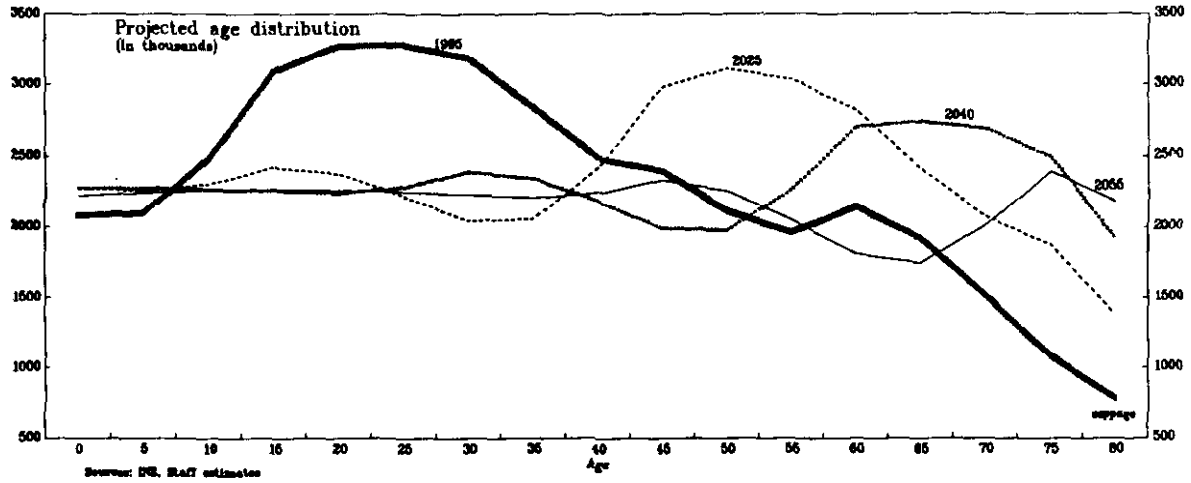
play an important role because the participation rate in the labor force in Spain is among the lowest in Europe. This is due to a still recent shift from agriculture, to the lower participation of women and, more generally, to rigidities in the market. In the medium term, if the labor market becomes more flexible, about 1 million new jobs could be created before the year 2000, permitting the contribution rate required to balance the pension system to be stable. 1/ And in the long run, by permitting higher sustained growth, a more flexible labor market would reduce the burden on the working force (for same level of benefits to pensioners).

a. Demographic trends

The projections presented here, while only illustrative, are based on the detailed age distribution of the population published by INE, as well as on mortality rates in Dinh (1994) and Domenech and Escribano (1989). The *natality rate reflects the current fecundity. It is expected to increase in* coming years, when the bulk of the "baby boom" cohorts reach the peak of reproductive age. As shown in Chart 4 (top), the ratio of old-age (> 65 years) to working-age (> 15 years and < 65 years) populations would be projected to rise from 25 percent in 1995 to more than 60 percent in 2050.

In order to determine the implications for contribution rates, two scenarios regarding the employed to working age population ratio are considered. 2/ In the first scenario, the proportion for each age bracket stays at its 1990 level. In the second scenario the ratio for most age brackets gradually increases, reflecting mainly a larger participation of young (< 35 years) and middle age (> 45 years) women. In this scenario, the employed to working age ratio increases from 47.4 percent in 1995 to 53 percent in 2010, staying around this figure in the following years (Chart 4, middle). 3/

In the projections, the retirement age is kept constant at 65 years. Under this assumption, the ratio of pensioners to worker in the second scenario doubles between 1995 and 2050, with the big shift taking place after 2010, when it rises from 0.6 to 1 (Chart 4, bottom).

1/ If the structural changes fail to be implemented, employment growth may be limited to some 0.6 million new jobs in the next five years.

2/ The two scenarios are useful to compare the sensitivity of results to projected changes in employment, given the difficulty of estimating the participation of women in the labor force and the ability of the labor market to absorb the supply of labor. How much of the increase in the labor force will be translated into a higher worker to working age population ratio will depend inter alia on the future flexibility of the labor market. Employment figures after the year 2000 do not consider economic cycles.

3/ This growth reflects the assumption that, not only the number of women working will increase, but the trend of delayed pregnancies and of re-entrance into the labor force a few years after childbearing will be strengthened in the future.

b. Output growth and pension contributions

For the purpose of these scenarios, real GDP growth has been projected using a Cobb-Douglas production function. The baseline increases in the capital stock (around 4 percent a year) and in the total factor productivity (1.4 percent a year) are exogenous (reflecting the recent history). The share of labor in total income is assumed to be of 61 percent (the average in the recent past) and yields an equivalent elasticity of output to changes in employment over the period. Ipso facto, output growth will slow in the future, as the available labor decreases (Table 4). The average growth rate during the first decades of the next century is thus projected to be around 2.2 percent, in the case of higher employment and about 0.2 percent less in the other case.

Average wages are assumed to incorporate the increase in total factor productivity and thus to rise 1.4 percent a year further than the CPI. New pensions are assumed to be a constant fraction of average wages. Reflecting the current experience in Spain, old pensions are indexed to the CPI and not to wages (i.e., they are constant in real terms). The value of new pensions was estimated using figures provided by the social security administration. 1/

The method adopted avoids the pitfalls of simply extrapolating past growth of expenditure on pensions, which reflected a transient period of increasing coverage and harmonization of pension values. Instead, it permits an evaluation of the financial requirements of the pension system in a more stable institutional framework. A similar approach has been used for the G-7 countries (e.g., Van den Noord and Herd, 1993), but not for Spain. Of course the model, because it is a stylized one, is inadequate for detailed short- or even medium-term (5 years) estimation of the social security cash flow. For such a precise estimation, exact actuarial information on the particularities of the many regimes and classes inside them would be necessary. This information is not publicly available and is, in any event, of limited importance when making projections 30 years in the future.

c. Incorporating pre-funded public pensions

The projections also attempt to assess the scope of partially pre-funding public pensions. Such pre-funding can take many forms and could be introduced gradually to address the long-term problem. As an illustration, funds start to accumulate at a rate of 0.2 percent of GDP a year in the initial years, with the flow of saving increasing to up to 1.1 percent of GDP per year in the first decades of the next century is simulated. The additional domestic saving helps to finance a increase in the capital stock (over the baseline value), permitting higher growth and, when the

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1/ The average value of new retirement pension in the first quarter of 1994 was 25 higher than the average retirement pension.

withdrawals start, also limiting the increase in social security contribution rates required to finance a constant level of real benefits. In the projection, funds accumulated are assumed to be fully used by the year 2050.

d. Results

The main results of the projections are that, under the assumptions considered, (a) the average rate of contributions required to finance pensions on a exclusively pay-as-you-go basis will double by the middle of the next century; (b) the increase in contribution rates can be almost halved by a gradual pre-funding and full use of accumulated assets in a 20-year period.

These results (summarized in Table 4) indicate that the demographic pressure will be an important factor determining income distribution in the future. 1/ They highlight the different patterns of intergenerational transfers implied by some pay-as-you-go and partial pre-funding alternatives, and the importance of directing part of social security contributions to starting to fund the pension system. It is important to note that the pre-funding alternative implies higher contributions by the generation retiring before 2020, but a lesser increase in the contributions of those retiring in subsequent years, i.e., the transition generation will have to pay current pensions and save for their own pensions. It has been indicated elsewhere (Breyer and Staub, 1993 and Raffelhuschen, 1993) that under special conditions the transition to a partially pre-funded system could be achieved without significant cost to the transition generation. However, the conditions may be difficult to be achieved and therefore it is of importance to proceed with an early and ample debate of the issue before adopting key reforms. 2/

1/ The projections show only the average contribution to labor income ratio. As contribution rates increase, it may be necessary to increase the ceiling of contributions (the "bases") above the current 3 minimum wages. This increase in progressivity may be important if wage dispersion continues to augment.

2/ In addition to pre-funding the pension system, a change in parameters such as the number of years of contribution and the maximum contribution would have to be considered soon.

Table 4. Spain: Financial Situation of Social Security

	1995	2000	2010	2020	2030	2040	2050
Population (in millions)	39.2	39.9	41.1	41.7	41.8	41.3	40.2
Scenario 1: Pay-as-you-go, without significant change in labor markets							
Workers/working age population (%)	47.4	49.5	50.3	48.8	47.8	47.9	48.7
Workers/16+	39.0	39.6	39.0	36.5	33.5	31.5	31.7
Average GDP growth (% a year)	3.1	2.8	2.4	2.6	2.3	2.3	2.1
Employment (in millions)	12.7	13.3	13.3	12.7	11.7	10.8	10.6
Empl(t)-Empl(0) (in millions)	--	0.57	0.61	-0.02	-0.95	-1.85	-2.10
Empl(t)/Empl(0)	--	1.05	1.05	1.00	0.93	0.85	0.83
Pensioners (in millions)	6.2	7.1	8.1	9.3	11.0	12.1	11.5
Pens(t)/Pens(0)	1.14	1.30	1.49	1.77	1.95	1.86	
Pensioner per worker	0.49	0.53	0.61	0.73	0.94	1.12	1.09
Pensions as % GDP	8.5	8.8	9.8	11.9	15.3	18.6	17.6
Average contribution rate to finance PENSIONS rate(t)/rate(0)	--	1.0	1.2	1.4	1.8	2.2	2.1
Scenario 2: Pay-as-you-go, with significant change in labor markets							
Workers/working age population (%)	47.4	51.3	53.7	53.1	52.5	53.5	55.3
Workers/population of 16+ (%)	39.0	41.0	41.7	39.7	36.8	35.1	35.9
Average GDP growth (% a year)	3.5	3.0	2.6	2.6	2.4	2.4	2.1
Employment (in millions)	12.7	13.7	14.2	13.8	12.9	12.1	12.0
Empl(t)-Empl(0) (in millions)	--	1.04	1.52	1.09	0.21	-0.59	-0.67
Empl(t)/Empl(0)	--	1.08	1.12	1.09	1.02	0.95	0.95
Pensioners (in millions)	6.2	7.1	8.1	9.3	11.0	12.1	11.6
Pens(t)/Pens(0)	--	1.14	1.30	1.49	1.78	1.95	1.86
Pensioner per worker	0.49	0.51	0.57	0.67	0.86	1.00	0.96
Pensions as % of GDP	8.5	8.3	9.1	10.9	13.9	16.5	15.4
Average contribution rate to finance PENSIONS rate(t)/rate(0)	--	1.0	1.1	1.3	1.6	1.9	1.8
Scenario 3: Partial pre-funding, with significant change in labor markets							
Saving/GDP (%)	--	0.2	0.5	1.1	--	--	--
Accumulate assets/GDP (%)	--	1.0	5.4	18.3	27.0	22.3	5.0
Accumulate assets/GDP (0) (%)	--	1.2	8.5	36.9	70.9	75.6	22.5 .
Average contribution rate to finance PENSIONS rate(t)/rate(0)	--	1.0	1.1	1.4	1.5	1.5	1.5

Source. INE statistics, staff projections.

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Chart I-5

SPAIN

Expenditure on Health Care

Total expenditure

Expenditure per head in 1990 pesetas
(right scale)

As percentage of GDP
(left scale)

Source: OECD

Deviation of actual public health care expenditure from
budgeted level (in percent)

Sources: Abril Report, Ministry of Economy
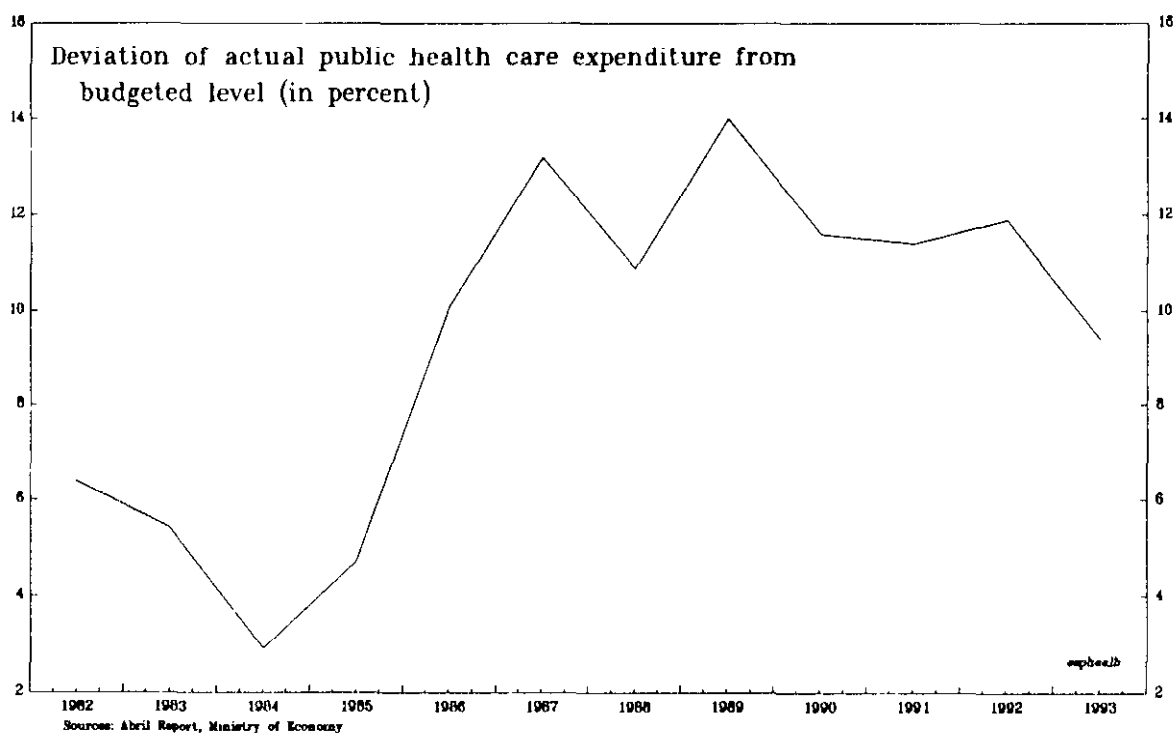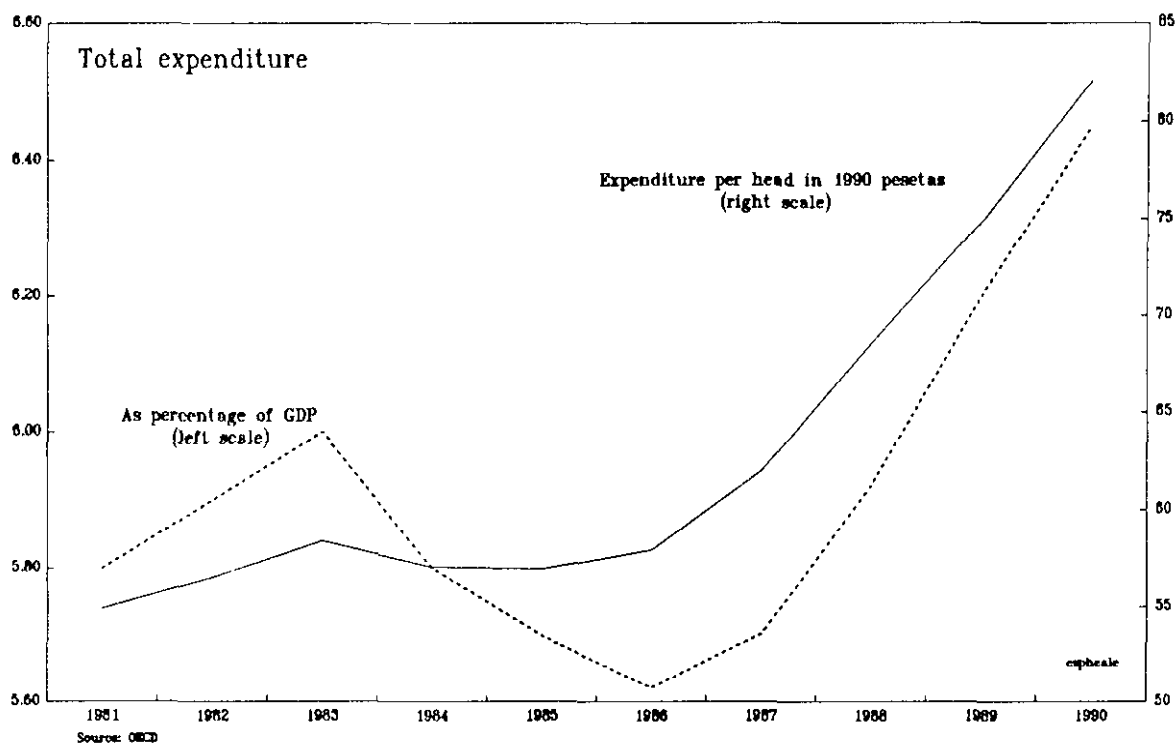
5.   The health-care system

a.   Main features

(1)   Development and coverage

The national health-care system in Spain dates back to 1942, when a compulsory sickness national insurance scheme for low-income workers and their families was introduced. The current organization began in late 1977, following the 1977 reform of the social security system, when the National Insurance Institute (INP) was divided into four different entities, one of which--the National Institute of Health (INSALUD)--became responsible for health care. At that time, the trend toward greater regional autonomy began to develop. Since, seven regions have become responsible for managing their health services. 1/ This transfer process, as well as the integration of the different providers of health care services (i.e., INSALUD and municipal institutions) into a national health system (SNS) under the aegis of the social security system, was formalized in the 1986 General Health Act (Table 5).

Table 5.   Spain: Shares of Public Expenditure on Health Care

(In percent)

	1982	1986	1991	1995 1/
INSALUD				
Central government	84.2	80.8	40.6	38.5
Territorial authorities	7.9	12.4	53.5	58.8
Other	7.9	6.8	6.1	2.7

Sources: Whitaker et al., and 1995 General Budget.

1/ Share of expenditure under the control of social security.

Public health coverage has become almost universal since the late 1970s (increasing from about 80 percent in 1977 to 99 percent in 1992), and population health indicators now compare favorably to those in other

1/ The regions are Andalucia, Catalonia, Valencia, Basque country, Galicia, Navarra and Canarias. The Basque country and Navarra have special financial arrangements, because, for historical reasons, they raise their own taxes. The Social Security, through INSALUD, finances the health-care services managed by both central and regional authorities.

industrial countries. Expenditure on health care increased from 3.6 percent of GDP in 1970 to 5.9 percent in 1980, and about 6.5 percent in 1990, most of the latter increase occurring after 1987 (Chart 5, top and Table 6). The later growth has been attributed to the aging of the population, the adoption of more sophisticated treatments, the reduction in working hours of health professionals (especially after the 1987 labor unrest), and lax monitoring of expenditure. 1/ Despite the increases in expenditure, there is still an excess demand, dealt with mainly through waiting lists for non-urgent interventions.

Table 6.   Spain: Total and Private Expenditure on Health

(As percentage of GDP)

	1970	1975	1980	1985	1990
Total					
Spain	3.6	5.1	5.9	5.7	6.5
OECD	5.2	6.5	6.8	7.4	7.9
Private					
Spain		1.5	1.5	1.7	
OECD		1.5	1.5	1.7	

Source: OECD.

b.   Financing

At present, between one third and one fourth of total expenditure on health is private, because users (except the elderly and chronically ill) pay for 40 percent of the cost of medicines consumed and because dental and some psychological services are not covered. In addition, patients covered by the public health system often prefer to go to private doctors and clinics to receive non-urgent or non-complex care, in order to avoid the waiting lists required for consultations in public health centers and because they value the amenities provided by private institutions. These services are usually paid by private insurers, who cover about 17 percent of the population. Complex interventions are usually done in public hospitals and are not covered by standard private insurance.

1/ Personnel costs correspond to about 75 percent of current expenditure of hospitals and about half of that of the INSALUD.

The public financing of health care has experienced significant changes
in the last 10 years. In the early 1980s, most public expenditure on health
care was financed by social security contributions (only 5 percent was tax
financed in 1979), but, in recent years, more than two thirds have been tax
financed (77 percent in 1995). 1/ As noted above, this sharing reflects
the principles in the 1986 General Health Act. However, while the burden on
the central government has steadily increased with the swelling of health
care expenditure, analysis of the funding of contributive and non-
contributive expenditures is still complicated by the use of some
contributions to finance health care, and of some general budgetary
resources to finance some pensions.

The financing of services transferred to regions, handled by INSALUD,
has been subjected to bargaining every year between central government and
regional authorities. 2/ Actual expenditure has systematically been above
budgeted transfers (Chart 5, bottom), leading to large debts. These debts
have eventually been written off by the central government, despite
contention about who should be responsible for accumulated interest charges.
Currently, the central government is repaying the Ptas 0.7 trillion
(1.1 percent of GDP) debt that had accumulated by 1992 (Table 7). The
Government has indicated that the deviations of actual from budgeted
expenditure resulted from conscious underestimation of costs aimed at
putting pressure on INSALUD to curb expenditure. However, this strategy has
increasingly been perceived as ineffective, prompting the recent effort to
achieve a medium-term agreement between central and regional authorities.

In 1994, the authorities achieved a multi-year (1994-97) agreement with
the regions, establishing that accrued health expenditure should grow at the
same rate of GDP, adjusted for the coverage rate in individual regions.
Cash expenditure would diverge from this projected path by the additional
amount budgeted for debt repayment. For the purpose of the plan, an
estimate of the expenditure accrued in 1993 was computed and adopted as the
base for future expenditure; this implied that the share of (accrued) public
health expenditure should stabilize in the coming years at 4.7 percent of
GDP. Following the agreement, the 1994 budgeted expenditure was increased
by about Ptas 200 billion, the amount yielded by the new methodology as
required to break with the old pattern of insufficient transfers.

1/ Fees correspond to only Ptas 40 billion.
2/ The conditions for the transfer were also the result of bargaining
processes, and because in most cases they reflected the level of expenditure
in the regions at the time the transfer took place, they have tended to
perpetuate the differences in services between regions. It should also be
noted that although regions are responsible for managing their services,
most policy and financing decisions are taken at the national level.

Table 7.   Spain: Projected Health Expenditure 1/

(In trillions of pesetas)

	1993	1994	1995	1996	1997
Basic accrued expenditure	2.88	3.02	3.22	3.45	3.73
Saving measures 2/		-0.09	-0.10	-0.10	-0.11
Additional items 3/		0.04	0.05	0.05	0.04
Total accrued expenditure		2.97	3.17	3.39	3.65
(percentage change)			(6.5)	(7.2)	(7.6)
Of which:					
Central administration		1.18	1.25	1.33	1.43
Territorial administration		1.79	1.91	2.06	2.23
Financial regularization					
1992 arrears					
Central administration		0.07			
Territorial administration		0.08			
1993 Arrears					
Central administration			0.02	0.04	
Territorial administration			0.03	0.05	
Total		0.15	0.06	0.08	
Total projected outlays		3.12	3.22	3.48	3.65
(percentage change)			(3.2)	(7.8)	(5.1)
(in percent of GDP)		4.9	4.7	4.8	4.6
Of which:					
Central administration		1.25	1.28	1.37	1.43
Territorial administration		1.88	1.95	2.11	2.23

Source: Ministry of Finance.
1/   According to the agreement with the Territorial Authorities.
2/   Savings on the purchase of pharmaceutical products.
3/   For expenditure of other institutions in the National Health System.

c.   Problems, reform proposals, and outlook

The agreement with regional authorities establishes goals, but does not provide a strategy to solve the imbalances in the health system (e.g., it does not have provisions to implement the expenditure-control proposals made in the report issued by the parliament in 1991) and may have little immediate impact on the amount of resources transferred from the central government and, hence, in the overall fiscal balance of the government.   The

imbalances of the health-care system stem largely from the difficulties associated with the devolution of services to regional authorities and inadequate monitoring and incentives in the system--the latter being reflected in the endemic absenteeism and chronic fraud by users and providers. The transfer of services to regional authorities has not always been followed by proportional reductions in the personnel in the central system, especially management, and there has been duplication of activities. Waste also takes place because the majority of doctors in primary care are not rewarded by performance, nor are they penalized for sending patients to specialists when care could be dispensed at the level of general practice; public hospitals do not face credible budget constraints, and are not managed by professionals; and contracts with private hospitals often establish per-day compensation (instead of per-case), hence encouraging long patient stays. In addition, although pharmaceutical producer prices are low in comparison to other developed countries, drugstore margins are large, patients often abuse the privilege of free medicines granted for the elderly, and, until recently, little control was exerted on doctors who over-prescribed medicines.

In 1991, a parliamentary commission issued a report (the "Abril Report") analyzing most of the problems listed above and suggesting several measures to limit costs. Proposals included user fees, copayment on drugs to the elderly, limits on the incorporation of new drugs in the government-approved purchase lists (selective financing), and procedures to increase the awareness of patients about the actual cost of services provided. In addition, the commission suggested procurement reforms (including the creation of internal markets), more autonomy and budgetary responsibility to hospitals, increases in the number of beds for long-term care (including those offered by the private sector) in order to reduce the use of acute-care beds by chronic patients, and the contracting out of private services for interventions requiring long waiting periods. These measures were expected to greatly improve the overall efficiency of health care.

Most of the proposed measures, however, are difficult to implement and some would take time to produce significant effects. Savings on pharmaceuticals have been achieved (Table 7) and cases of fraud and inefficient procurement have been investigated, but most other propositions (e.g., user fees and administrative reforms) have either been discarded, or need further specific preparatory work. Given these problems and considering the trend in other OECD countries, the ratio of health-care expenditure to GDP is likely to increase in the near future, even if significant advances are made in the management of INSALUD. 1/ Therefore, the system will need more resources in the next few years and, barring steep increases in social

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1/ Rowlatt and Lloyd (1994) estimate the GDP elasticities of health care expenditure for developed countries to be between 1.4 and 2.3. Gerdtham et al. (1994) find that (in OECD countries GDP) per capita, with a coefficient of elasticity significantly larger than one, appears to be the most important factor in (cross country) health care expenditure variations, being stable in the last 20 years.

contribution rates, reliance on taxes will continue. The need for fiscal consolidation at the level of the central government, however, suggests that simple transfers out of general revenues may not be the best alternative. Instead, dedicating some new source of tax revenues entirely to financing the health care system would both comply with the principle of government responsibility for public health and help reducing the government deficit.

6. Aspects of tax financing for public health care

The financing of health care raises several issues, including the amount of services that are to be provided (and thus financed); the link between contributions and benefits (including the advantages and disadvantages of earmarked taxes, as well as the tax base chosen); and its consistency with the general income distribution objectives of the Government. Considering most of these public choices as given (and with limited scope for significant short-term impacts of structural reform), only a subset of issues related to the financing of health care is addressed in the following paragraphs. These are mainly related to the justification for tax financing, the usefulness of earmarking revenues to finance public health expenditure, and the choice of a tax base for this purpose.

a. Reasons for tax financing and the pros and cons of earmarking taxes

If health care is seen as a universal right--as it is in Spain--it may be more suitably financed by taxes, as are other rights offered to the population as a whole (e.g., security as provided by policy and the army), rather than through user fees or payroll taxes. [1]/ Hence, a broad-based tax may be the most attractive solution for financing health care, with some mechanism--such as earmarking--to ensure that the resulting revenues are used to reduce transfers from the general budget, rather than to increase other expenditure.

Earmarking revenues is often viewed as welfare reducing, because it limits the ability of government to optimally allocate resources. This criticism, however, is based on the assumption of the existence of a benevolent fisc and has been largely nuanced by the recognition that governments are the result of the interaction of complex political interests. Modern constitutional economics suggests several instances where earmarking can be a welfare enhancing instrument (Buchanan, 1991). Following this approach, earmarking can be justified either as an implicit way of raising fees for specific services (i.e., a sort of exchange), or as a means to ensure that tax revenues are spent in providing benefits that are

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[1]/ This principle does not apply to pensions. Instead, it is widely considered preferable to have pensions funded by labor contributions, because this establishes a link between retirement income and the effort of workers in their productive years.

general in nature. 1/ The first justification suggests that taxpayers may be more willing to pay taxes if the return for them is clearly defined. In this more or less consensual framework, a tax used exclusively for financing health care may face less opposition than a simple increase in general taxes. Earmarking revenues to finance universal health care would also fit the second criterion.

Furthermore, earmarking revenues can help to stabilize the resources available to the public health care system on a yearly basis and make them more predictable in the medium term (including if a increasing trend is admitted). For instance, they may protect INSALUD from cuts in funding resulting from squeezes by other areas in government--which in any case usually result in arrears and a need for higher transfers in following years. They may also signal a sustainable expenditure path provided by the expected growth of the tax base. Management, especially of medium- and long-term issues, may be assisted by such predictability.

Given the trend in most developed countries (in spite of efforts to curb the growth of expenditure), a broadly based tax should also respond to the requirement to choose a tax that could be adjusted to the likelihood that the public health expenditure to GDP ratio will increase in coming years. Of course, payroll taxes (i.e., social security contributions), when used for funding health care, are a form of earmarked direct taxes and their rates can be adjusted to the financing needs of health expenditure. 2/ However, they have a relatively narrow base, that not only may be seen as nonequitable, but also creates impediments to employment growth because it puts all the fiscal burden on the labor factor. The VAT, being a consumption tax, compares favorably to payroll tax in this aspect, because it is broadly based. In Spain, the VAT has become increasingly important in helping to finance the transfers to the social security system. Further reliance on it may, however, be inconvenient.

b.   Consequences of further reliance on the VAT

As noted, relying on the VAT for financing the public health care system is attractive because it has a broad base. However, increases in its rate are problematic. First, rates are subjected to the EU agreements, and although Spain still has relatively low rates, room for further increases is limited. Second, any increase in rates has a significant impact on the CPI, which conflicts with government priorities. Finally, even when tax evasion is taken into account, the VAT tends to be more regressive than direct

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1/ Earmarking complementary goods and services (e.g., earmarking a fuel tax to finance roads) can also be understood as a way to protect a minority from a majority. If revenues, once collected, can have only specific uses, the incentives for excessive taxation are decreased. In the exchange model, efficiency is not guaranteed if the level of taxation is not jointly set with the destination of the tax.

2/ Contributions in this case are a tax because the benefits in terms of health care are not actually related to the contribution paid.

taxation, thus conflicting with the income distribution goals of the Government. 1/ In that regard, some economic models suggest that progressive taxes may also dampen wage pressure in a unionized environment (Hersoug, 1984, Malcomson and Sator, 1987, Lockwood and Manning, 1993), hence favoring the Government's goal of lowering inflation.

Burgos et al., (1993) estimated the effects of VAT increases in 1992. Their results suggest that a 1 percentage point increase in VAT rates translated into an increase of 0.35 percent in the CPI. 2/ Simulations published by the Ministry of Economy using their model MOISEES (Fernandez et al., 1994) suggest a smaller, but still significant, impact. 3/ Regarding the revenue raised by a 1 percentage point increase in the VAT rate, the Spanish authorities have indicated the expectation of a significant increase in VAT evasion following such increase in rates. The effect on the price level of increasing the VAT in order to raise 1 percent of GDP in new revenues would be an increase of prices of over 1.2 percent.

c.   The scope of a generalized social security contribution

Considering the arguments above, an earmarked direct tax, akin to a contribution to the social security system but based on both capital and labor income, could be the most advantageous option. 4/ The discussion in section 2 indicated that health-care expenditure amounting to about 1 percent of GDP are funded by labor contributions. Hence, in response to redirecting contributions to finance only wage-related benefits (in the context discussed in section 2, this amount in new revenues could be sought out of such a broadly based health tax. How broad would the base of such "generalized contribution" be can be assessed by looking at the National Accounts. The National Accounts suggest that the (potential) base for a generalized contribution is about 50 percent larger than that of ordinary social contributions: income from capital and transfers (such as pensions

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1/ Evasion from both direct and indirect taxation is widespread. Studies quoted in Fernandez et al., 1994 (Secretaría de Estado de Economía (1994) and Melis (1992)) suggest that VAT evasion is estimated at about 30 percent.
2/ The increase of 2 percentage points in July 1992 explained about 0.7 percentage points in the CPI increase recorded in the following 3 months. The 1 percentage point increase in the VAT in January 1992 explained about 0.6 percentage points of the subsequent increase in the CPI. However, the increase in VAT in January was accompanied by an increase in the taxes on gas and tobacco and the effects of this contemporary increases were not disentangled. The transmission of an increase in the VAT should be less than 100 percent, since food is not taxed.
3/ MOISEES is a Keynesian model that assumes that prices reflect a mark-up over wages and capital costs; in the simulations, interest and exchange rates are fixed.
4/ Such an approach has been used by the French since 1990, when the Contribution Sociale Généralisée was introduced. This contribution is in fact a flat-rate income tax based on capital (including rents and financial assets' returns) and labor revenues (including pensions).

and unemployment benefits), constitute about one third of total income (Table 8).

Table 8. Spain: Sources of Household Income (1993)

(In percent)

Wages	Self-Employment	Transfers	Profits	Interest
46	16	18	10	6

Sources: Cuentas Finacieras and staff estimates.

1/ The share of self-employment income is computed using the number of self employed contributing to the social security, assuming that their average income is the same as the wage earners.

The rate of the "generalized contribution" required to raise 1 percent of GDP can be estimated using the information from the personal income tax. The effective average personal income tax rate in 1993 was about 10 percent of total household income, in spite of marginal income tax rates ranging from 20-53 percent. 1/ This is explained by the several exemptions (e.g., the minimum income subject to income tax), deductions (e.g., for costs related to employment) and credits (e.g., family allowances) granted. Hence, taking into account the exemptions for incomes below the income tax threshold, the rate required by the generalized social contribution on income to generate revenues amounting to 1 percent of GDP would be in the range of 1-2 percentage points (instead of the theoretical rate of 1 percentage point levied on total household income).

To minimize problems of tax evasion, collection of the generalized contribution could replicate the mechanism adopted for collecting ordinary social security contributions and income taxes, as happens with the Contribution Sociale Généralisée.

7. Conclusions

The social security system in Spain has steadily expanded since the late 1970s. The public health care system currently provides an almost universal coverage for the population, while the pension system has permitted a significant improvement in the standard of living of persons of age. Contemporary to these major achievements, however, social security

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1/ The income of households (an non-profit institutions) amounted to 103 percent of GDP in 1993.

expenditure has also increased, reaching more than 15 percent of GDP in 1994 and is now an important factor in the fiscal imbalance of the general government.

The growth of health care expenditure is broadly due to the aging of the population, more sophisticated medical treatments, increasing labor costs, and inadequate monitoring and incentives in the system. Considering these facts and the trend in other OECD countries, the major measure taken by the Government to curb the growth of expenditure--the multi-year financial program agreed between central and regional authorities--is unlike to significantly reduce the need of transfers from the central government in the near future.

Currently, the central government funds more than two thirds of the budget of the health care system, the rest being supported by social security contributions. Given the need of fiscal consolidation of the general government to allow Spain to attain the targets set in the Maastricht Treaty, and the difficulties for trimming health care expenditure, a new source of fiscal revenues appears to be needed. This source should be broadly based, have a minimum impact on price levels, not be regressive, and permit to free social security contributions to fund only wage-related benefits. A flat-rate tax levied on the income from labor and capital, earmarked for funding health care and yielding about 1 percent of GDP would respond to these requirements.

The main challenge of the pension system lies in the future. The demographic changes that will take place in Spain after the first decades of the next century will significantly increase the proportion of the population aged above 65 years. For a pay-as-you-go scheme, such as the public pension system in Spain, such an increase will be reflected in a large increase in contributions from workers. Because of the large impact of these developments in the intergenerational income distribution, an early discussion of this challenge is very important. Current contributors should be informed about the possible alternatives and their consequences.

Future increases in pension contributions can be moderated by changes in some parameters of the system (e.g., the contribution period), partial pre-funding of future liabilities and greater flexibility in the labor market (which would lead to an increase the ratio of employed to working age persons). The illustrative projections presented in this study suggest that if these actions are taken soon, the increase in contributions by the time the current "baby-boom" generation will be retired would be halved in relation to a scenario where no action is taken. They also point to the importance of building a surplus in the pension system at an early stage.

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II. Labor Market Reforms in Spain: A Preliminary Evaluation 1/

1. Introduction

The single most important economic and social problem confronting Spain is unemployment. From relatively modest levels in the 1970s, the unemployment rate has grown to nearly one quarter of the labor force by 1994. Although the cyclical rise in unemployment during the recent recession was sharp, it has become clear that the much of Spanish unemployment is structural and persistent. 2/ This situation has prompted a number of government initiatives to reform the structure of the labor market. This paper reviews the recent reform efforts, and attempts to provide a preliminary assessment of their likely effectiveness. Particular attention is paid to the issue of dismissal costs, which are especially high in Spain. An annex to the paper explores the recent academic literature on the impact of dismissal costs on employment and unemployment.

The paper begins by providing background to the current labor market situation. Section 2 provides a review of the unemployment performance of Spain in recent years and sketches some of the important structural features of the labor market. Section 3 discusses the labor market reforms introduced by the Spanish government between 1992 and 1994. Section 4 uses recent data to attempt to get a preliminary idea of some of the effects of the reforms, though it acknowledges that it is too early to provide a full evaluation. Section 5 concludes with some speculations on the longer-term effects of the reforms and presents suggestions for further action.

2. Background

a. The evolution of unemployment

Unemployment in Spain demonstrated continuous growth from the late 1970s through the middle 1980s, with the unemployment rate climbing from under 5.0 percent in 1977 to 21.6 percent in 1985. This unprecedented rise was driven by five major factors. First, the early 1980s was a period of weak economic growth (averaging only 1.1 percent from 1981-85), and the relative stagnation was not conducive to employment growth. Second, the effects of population growth and increasing labor force participation by women produced a sharp rise in the labor force. Third, the structural transformation of the economy led to large declines in employment in agriculture and in certain basic industries (e.g., coal and steel). Fourth, the return to democracy brought with it a resurgence of trade union power an a sharp increase in the level and intensity of industrial action, which contributed to strong real wage growth and correspondingly weaker employment creation. Finally, and perhaps most importantly, severe rigidities in the

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1/ Prepared by J. Franks.
2/ See WP/94/102 for a detailed discussion of the structural, demographic, and cyclical factors contributing to high unemployment.

labor market inhibited job creation; total employment in 1985 was 13.7 percent lower than the level in 1977 (Table 1; Chart 1). Among the most important distortions identified by recent research are wage rigidities caused by strong insider-outsider effects, restrictions on the flexible use of labor by firms, and generous unemployment benefits which reduce incentives to search for work.

Spanish accession to the EC in 1986 sparked a major economic recovery, with growth averaging 4.5 percent per year from 1986-90. This expansion, combined with the government's introduction of flexible temporary labor contracts in 1984, fueled an increase in employment averaging 3.0 percent per year. The growth in employment was reflected in a drop in unemployment; however, the unemployment rate did not fall as sharply due to a large increase in labor force participation (6.7 percent during the period). As a result, the unemployment rate failed to fall below 16 percent at the cyclical peak.

Employment growth turned negative in late 1991, as GDP growth initially fell below 2 percent. The economy dipped into full-fledged recession by the end of 1992 and the unemployment rate soared. The unemployment rate climbed from 15.9 percent in the second quarter of 1991 to 24.6 percent in the first quarter of 1994, a change of nearly nine percentage points (and an average increase of 0.7 points per quarter). With economic recovery, the unemployment rate declined slightly in the second and third quarters of 1994, falling to 23.9 percent in the third quarter. Despite this improvement, the annual average unemployment for 1994 will still be above 24 percent, the highest rate in any industrial country in recent memory.

b.   The Structure of the labor market

The Spanish labor market has evolved into a singular amalgamation of the corporatist system of the Franco era and the social protections of a modern European welfare state. Many of the restrictions on functional and geographical mobility and high severance payments in place under the Franco regime were retained into the 1990s, and a new set of regulations was superimposed (such as generous unemployment compensation, minimum wages, and strong trade union bargaining rights). The resulting peculiar combination has had particularly negative effects on the functioning of the labor market, and has contributed to the elevated unemployment rates of the 1980s and 1990s.

(1)   Hiring and contracts

The labor market in Spain has suffered from severe rigidities in the working conditions embodied in labor contracts. 1/ Traditionally, labor contracts have been notably lacking in flexibility; in the Franco era,

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1/ See Luna and García (1994), INEM (1994) for a detailed treatment of the structure of employment contracts in Spain.

Table 1. *Spain: Population and Unemployment, 1986-94 1/*

	1986	1987	1988	1989	1990	1991	1992	1993	1994 Q3
					(In thousands)				
Population over 16 years of age	28,908	29,307	29,764	30,173	30,430	30,690	30,990	31,272	31,491
(Annual growth rate)	1.1	1.4	1.6	1.4	0.9	0.9	1.0	0.9	0.9
Economically active population	13,814	14,307	14,621	14,819	15,020	15,073	15,155	15,319	15,453
(Annual growth rate)	1.7	3.6	2.2	1.4	1.4	0.4	0.5	1.1	1.2
Employment 2/	10,881	11,369	11,773	12,258	12,579	12,609	12,366	11,838	11,718
(Annual growth rate)	2.3	4.5	3.6	4.1	2.6	0.2	-1.9	-4.3	-1.9
Unemployed 2/	2,933.0	2,937.7	2,847.9	2,560.8	2,441.2	2,463.7	2,788.5	3,481.3	3,734.1
Unemployment rate	21.2	20.5	19.5	17.3	16.3	16.3	18.4	22.7	24.2
Labor force participation rate: Total	47.8	48.8	49.1	49.1	49.4	49.1	48.9	49.0	49.1
Male	68.6	67.6	66.5	66.8	66.5	65.5	64.4	64.0	63.2
Female	28.9	32.1	32.3	32.9	33.5	33.9	34.4	35.2	35.7
Memorandum items:									
Beneficiaries of unemployment benefits (in percent of):									
Registered unemployed 2/	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Net of agriculture and first time job seekers 2/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All unemployed 2/	29.1	29.6	28.8	28.9	33.9	41.3	48.2	51.2	46.4

Source: INE, Labor Force Survey.
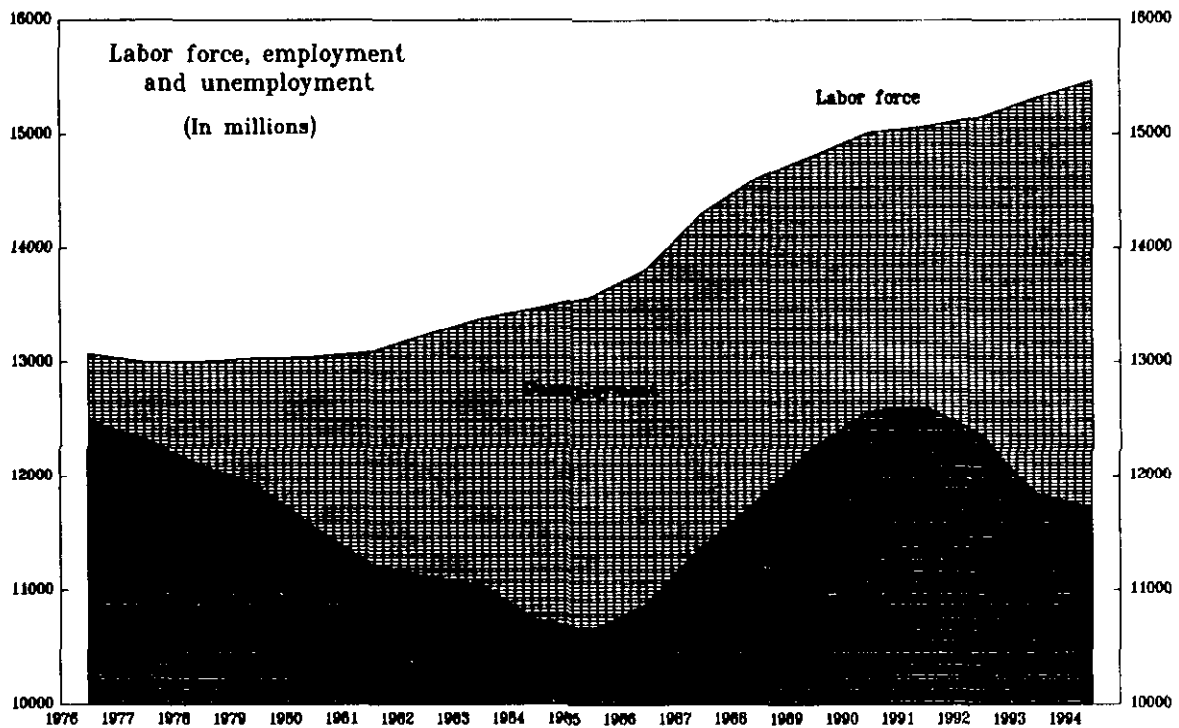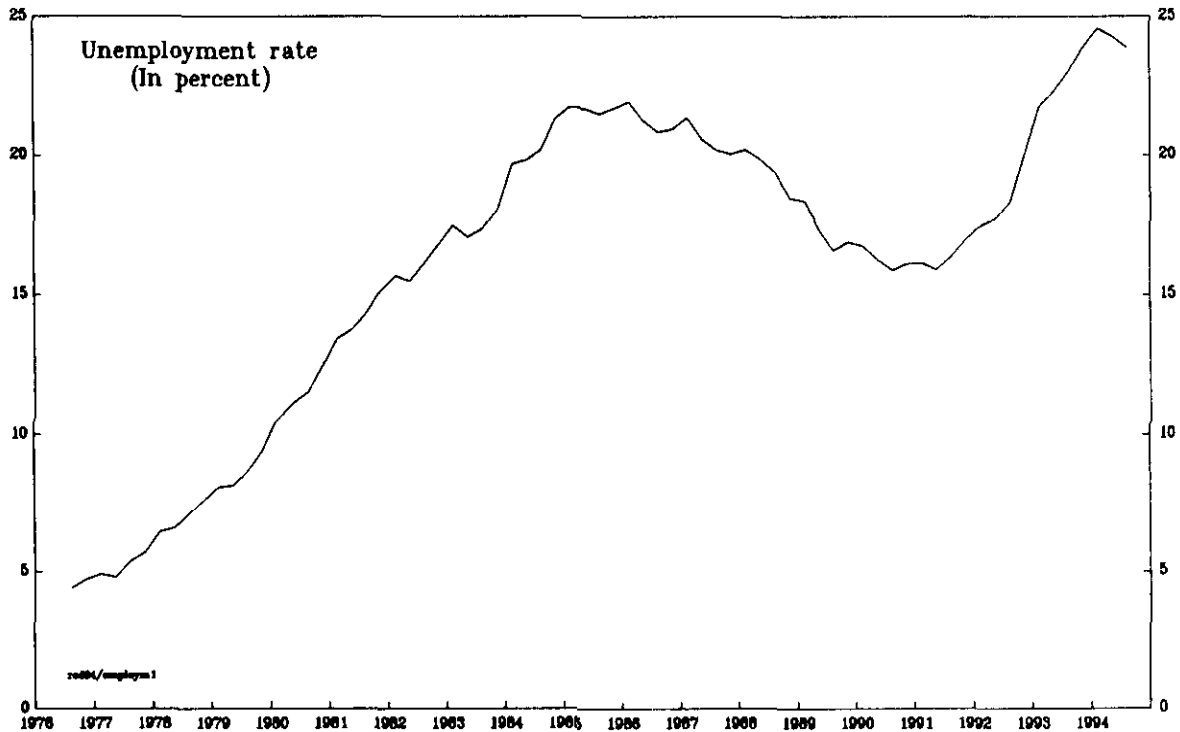
1/ End of year data except as indicated.

2/ Annual averages.

Chart II-1

SPAIN

Employment and Unemployment, 1976-94

Unemployment rate
(In percent)

Labor force, employment
and unemployment

(In millions)

Labor force

neither part-time nor temporary contracts were widely encouraged, and permanent employees worked under strict rules regarding hiring, firing, and workplace mobility.

Today the labor market has become extremely dualistic; highly protected permanent employees coexist in the market with a large group of temporary workers, many of whom do identical jobs as their permanent counterparts at lower wages 1/ and with significantly less legal and social protection. After a short trial period (2-6 months maximum), a worker hired under an indefinite contract is considered permanent. Permanent workers are entitled to generous severance pay if they are fired or laid off, and they are generally eligible for unemployment compensation as well.

The dualism in the labor market began to gain importance in 1984, when the rules governing the hiring of temporary workers were loosened substantially as a way of increasing flexibility and boosting employment. From 1984, temporary contracts could be granted to workers for periods as short as 6 months and ranging up to 3 years. 2/ These workers, upon completion of their contracts, receive substantially less severance pay than their permanent counterparts. 3/ The short length of their contracts also gave employers much more geographical and functional flexibility in organizing their workforce, whereas permanent workers enjoyed tight legal constraints on their mobility.

As a result of the more flexible conditions of employment for temporary workers and their lower costs to employers, temporary workers became an important component of the labor force in the late 1980s and early 1990s. The different forms of temporary contracts grew to encompass roughly one third of the salaried workforce, accounting for more than 95 percent of new job contracts issued over the period.

(2) **Working conditions**

Working conditions in the Franco period were governed primarily by a set of *Ordenanzas Laborales* ("Labor Ordinances") which regulated almost every aspect of the employee-employer relationship, from the working hours to functional assignments, to geographical mobility. The *Ordenanzas* were supplanted as the primary labor legislation in 1980 by the passage of the *Estatuto de los Trabajadores* ("Workers' Statute"); however, many of the provisions of individual *Ordenanzas* were retained. In particular, the ability of managers to organize the production process continued to be

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1/ Jimeno and Toharía (1993) suggest that temporary workers earn 11 percent less than permanent workers in similar circumstances.

2/ In 1992, the minimum contract length was extended to 12 months, and in 1993 the maximum was temporarily extended to four years.

3/ Temporary workers receive 12 days severance pay per year worked, whereas permanent workers receive a minimum of 20 days and in most cases much more (see below).

severely impeded by elaborate definitions of occupational categories and restrictions on mobility between those categories. These restrictions on functional mobility were considered by the current government to be "probably the greatest flaws in the system of industrial relations ... a system which in this respect was entirely the legacy of an archaic and corporatist interpretation of the *'Ordenanzas Laborales... '"*. 1/

In addition to the restrictions of the *Ordenanzas Laborales*, labor legislation itself maintained tight controls on geographical mobility, the length of the working day, number of permissible overtime hours, minimum vacation time, and other features of the employment relationship. Firms were required both to conduct lengthy consultation with unions and to obtain permission from the government in order to transfer workers from one location to another. If workers did not acquiesce to changes in their working conditions, or to geographical or functional mobility, they retained the right to quit with full access to severance pay (20 days pay per year of seniority), unemployment benefits, and with the right to challenge the legitimacy of the changes in the social tribunals. 2/

(3) Collective bargaining

Two aspects of the structure of collective bargaining are important to understanding the role of trade unions in the labor market in Spain. First, despite relatively low unionization rates, trade unions have a disproportionately strong impact on the determination of wages and salaries. Chart 2 illustrates this point. Despite the fact that only about 15 percent of workers belong to a trade union, more than 86 percent of all salaried workers have their wages determined by collective bargaining agreements. 3/ Trade unions in Spain are also particularly conflictive; the number of days lost in industrial action is quite high. Also shown in Chart 2 are days lost to industrial action, which peaked in 1988 when nearly 7 million work days were lost (nearly an average of one day per salaried worker). This rate is well above that prevalent in most other European countries.

The second important aspect of collective bargaining concerns its structure. The evolution of bargaining since the transition to democracy has created a bargaining system which tends to perpetuate rigidity in the real wages. In the late 1970s and early 1980s, the unions, employers, and the government concluded a series of nationwide social pacts which helped to

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1/ inforMISEP (1994), No. 47.
2/ In the case of collective changes, the individual worker could still resign with full severance pay even if the unions had accepted the changes. In the case on an individual change, the worker could mount a challenge in the social tribunals, where the firm would be required to demonstrate "technical, administrative, or productive" justifications for the modification.
3/ Coricelli (1990).

Chart II-2

SPAIN

Collective Bargaining and Industrial Action

Coverage of Collective Bargaining
(in percent)

Total

At sectoral level

Days lost in labor disputes
(thousands)
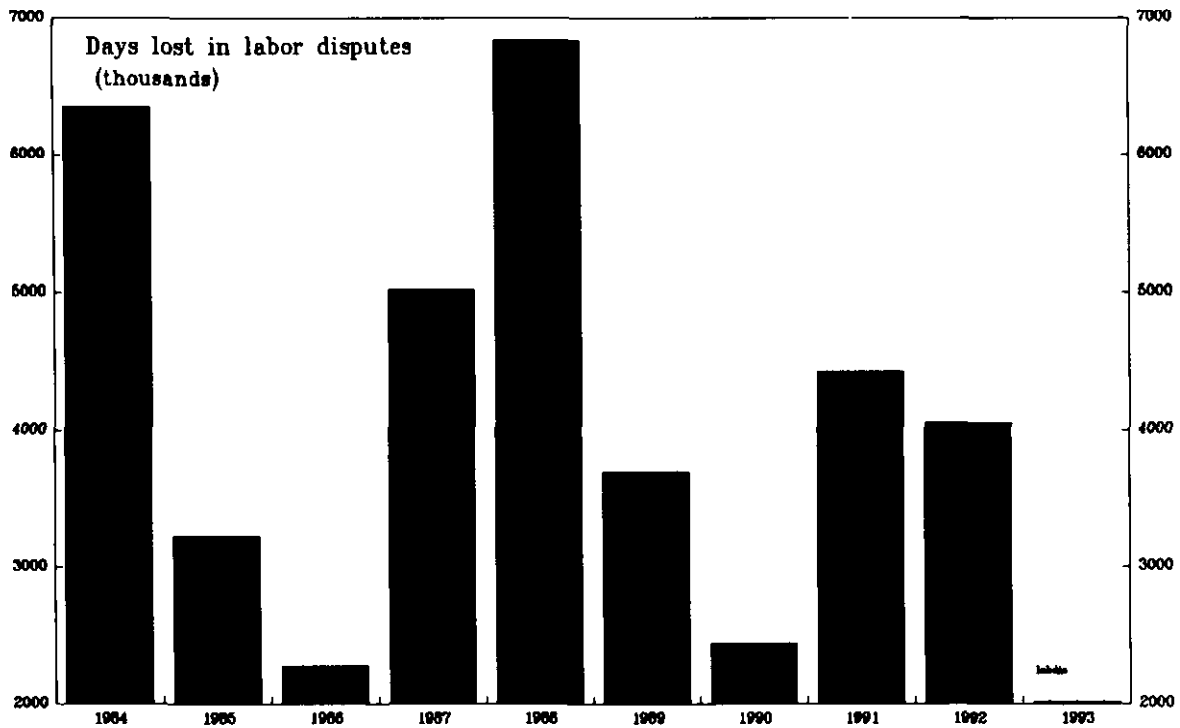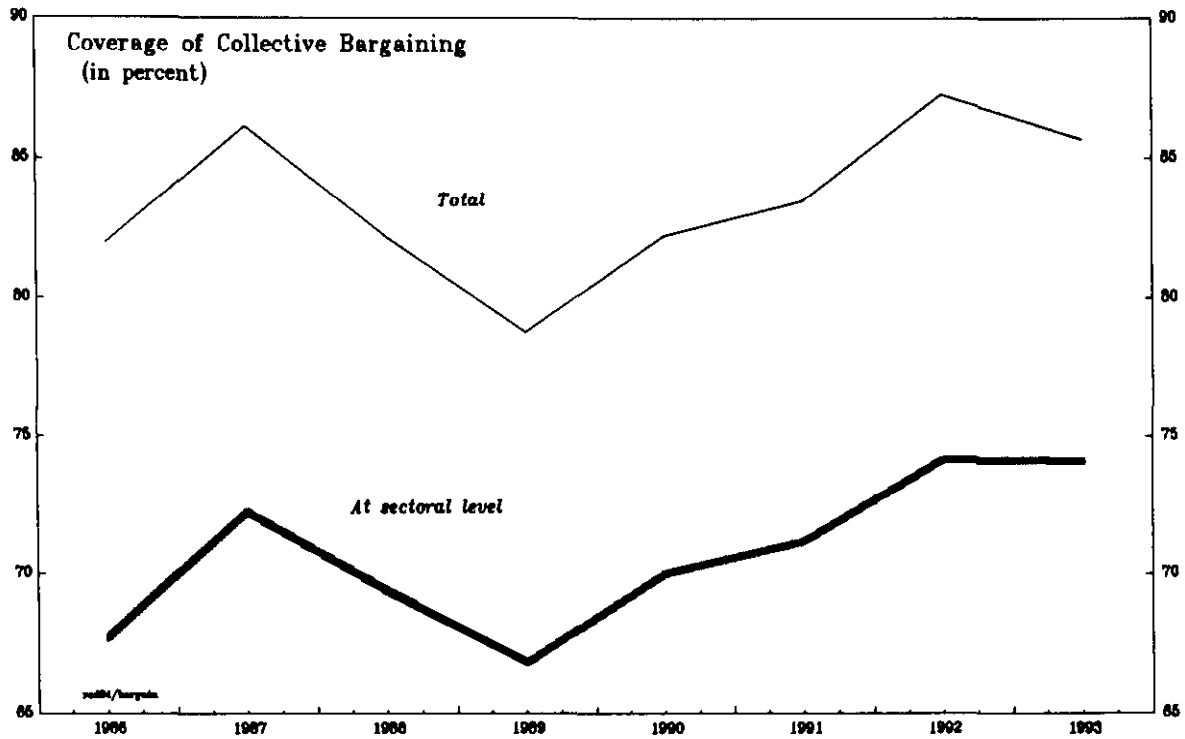
restrain real wage growth and to liberalize working conditions. Since the
end of the last of these agreements, collective bargaining has been based
primarily at the industry level, with industry-wide agreements automatically
serving as a floor for any additional agreements at the firm level. Both
theoretical research and empirical studies indicate that this type of
"intermediate" level collective bargaining is particularly prone to real
wage rigidity and thus contributes to high unemployment. 1/

(4) Dismissals

Among the most important rigidities in the Spanish labor market is
the high cost of dismissals of workers with permanent contracts. 2/ Three
aspects of dismissals are problematic: (1) Legally mandated severance pay
is relatively generous; (2) the legally admissible criteria for authorizing
dismissal are restrictive; and (3) the bureaucratic and legal procedures for
authorizing dismissals are time-consuming and costly. The combined effect
of these features is to make the dismissal of permanent workers very
expensive, which in turn affects the hiring decisions of employers.

The labor laws divide dismissals into categories according to the
number of workers affected (collective versus individual) and according to
the justification for the dismissal (justified versus unjustified).

(a) Collective dismissals

Until the 1993-94 reforms, theoretically all redundancies were
considered collective dismissals and required that the firm receive prior
governmental approval via an Employment Regulation Procedure (ERP) with the
Ministry of Labor. The employer was required to initiate a 30-day
negotiation period with the trade unions over the characteristics of the
redundancies. After the consultation period, the redundancy plan had to be
approved by the relevant government labor authorities which had 30 days to
rule on the plan. Employers could appeal an adverse ruling to the central
Labor Ministry officials, who were given another 15 days to rule. Any
dismissals initiated under the ERP regime involved a minimum severance
payment of 20 days pay per year of seniority.

(b) Individual dismissals

In practice, individual dismissal procedures have been widely used
for redundancies as a way of circumventing the time-consuming consultation
and processes inherent in the procedures for mass layoffs. At the
individual level, dismissals do not require previous negotiation, but
severance pay must be made and the dismissals are still subject to appeal by
the worker. Justified firing (despido procedente) requires a minimum

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1/ Coricelli (1990); Ramaswamy and Rowthorn (1993).
2/ See Jimeno and Toharia (1994) for a detailed description of firing
costs.

severance payment of 20 days of wages per year of seniority up to a total of
12 months pay, while unjustified dismissal (*despido improcedente*) involves
severance pay of at least 45 days of wages per year worked, plus the firm
must pay retroactively full wages to the employee for the duration of the
appeals process (up to 60 working days). The social tribunals have been
notoriously favorable to dismissed workers. In 1993, of cases decided by
the courts, 72.8 percent resulted in decision in favor of the worker or
partially in favor of the worker. This disproportionate number of appeals
resolved in favor of the workers has meant that workers have strong
incentives to appeal unless they receive severance pay close to 45 days
wages per year; as a consequence, the *effective* minimum for severance pay is
closer to the 45 days associated with unjustified firings. 1/ While data
are not available on the precise level of severance pay awards as a function
of days pay per year of seniority, the global figures confirm the fact that
payments are very high (Table 2). Chart 3 shows the evolution of severance
pay in recent years. The calculation of average severance pay divided by
the average wage in the economy shows that this compensation reached a peak
of well over one year's wages in 1993. 2/

(5) Unemployment benefits

The unemployment benefits system, virtually nonexistent under the
Franco regime, grew during the 1980s into a welfare state system comparable
to that in other European industrial countries. Both the coverage of the
unemployment system and the generosity of the benefits expanded
significantly. Chart 4 illustrates the rise in the proportion of registered
unemployed covered by benefits from a low of under 20 percent in 1983-84 to
70 percent in early 1993. When agricultural workers are excluded from the
calculations, the coverage rate in 1993 reached nearly 85 percent. 3/
This increase in the coverage rate occurred primarily because of government
initiatives to improve coverage, but it was also affected by the changes in
the structure of employment. Government decrees extended coverage of
unemployment benefits to temporary workers (1984), employees of cooperatives
(1985), and to workers in several sectors previously covered by special
regimes (1986, 1987). The decrease in the proportion of self-employed
workers in the economy, a fall in the proportion of unemployed who have not

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1/ The labor market experts at the employers confederation claim that the
effective minimum payment in order to avoid costly litigation is above
45 days per year of seniority.

2/ The calculation is based on 261 potential paid "working" days per year
(365 days minus weekends), since it is assumed that vacations and holidays
are paid.

3/ Agricultural workers are often employed only seasonally and are
covered by a special employment regime; hence, their exclusion is common in
measuring the coverage of regular unemployment benefits.

Chart II-3

SPAIN
Average Severance Pay, 1980-94
Individual Dismissals with Agreed Settlements

Days of average salary
(right scale) 1/

Thousands of pesetas
(left scale)

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1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994
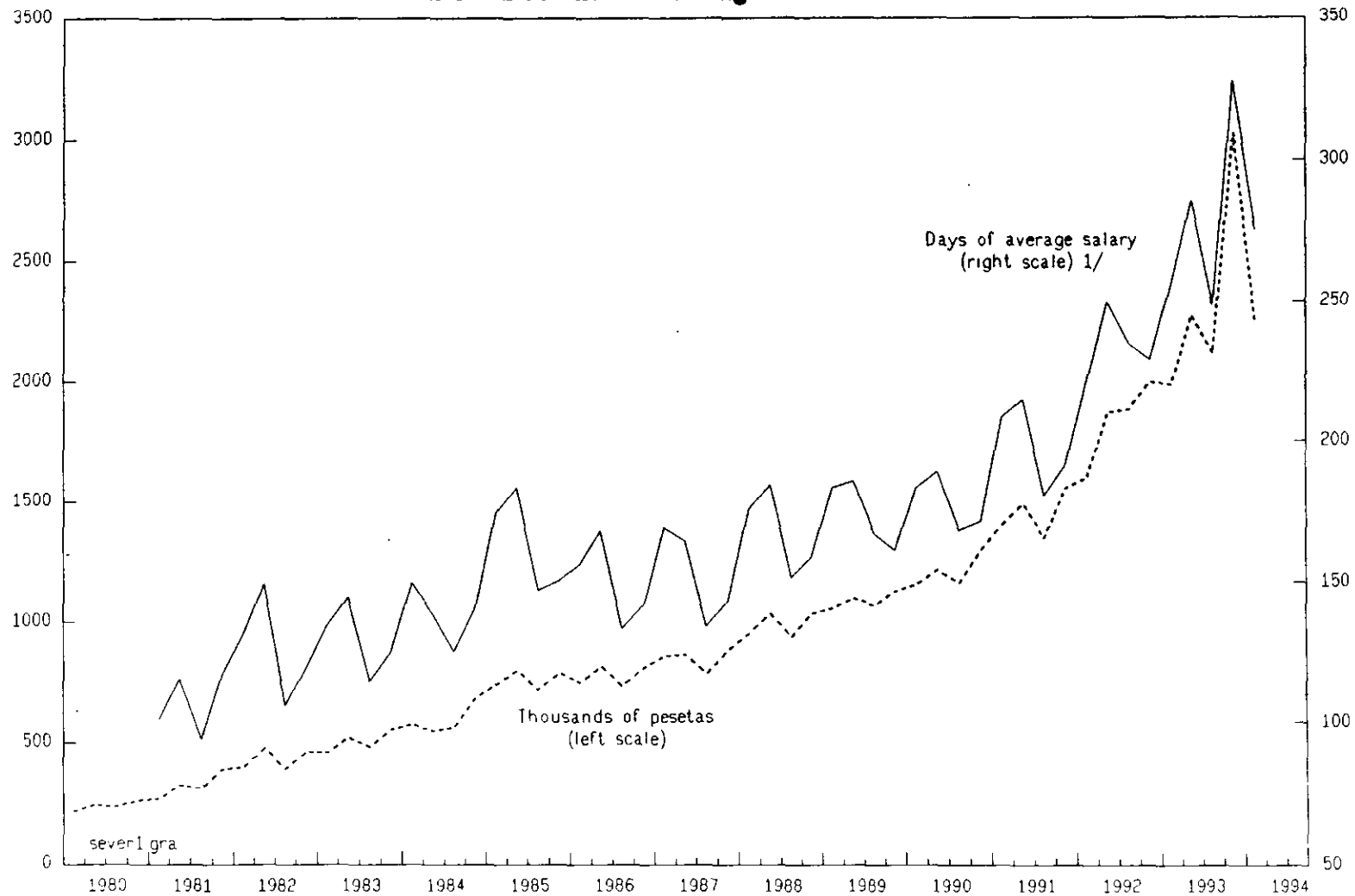
1/ Calculated by dividing average severance pay by average total wages of salaried workers in the economy. Assumes 261 days per year.

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Chart II-4

SPAIN

Unemployment Benefits

Coverage of Benefits
(Percent of registered unemployed)

Net of
agricultural workers

Gross

Real Unemployment Benefits
(1992 pesetas per person per year)

Table 2. Spain: Dismissal Costs

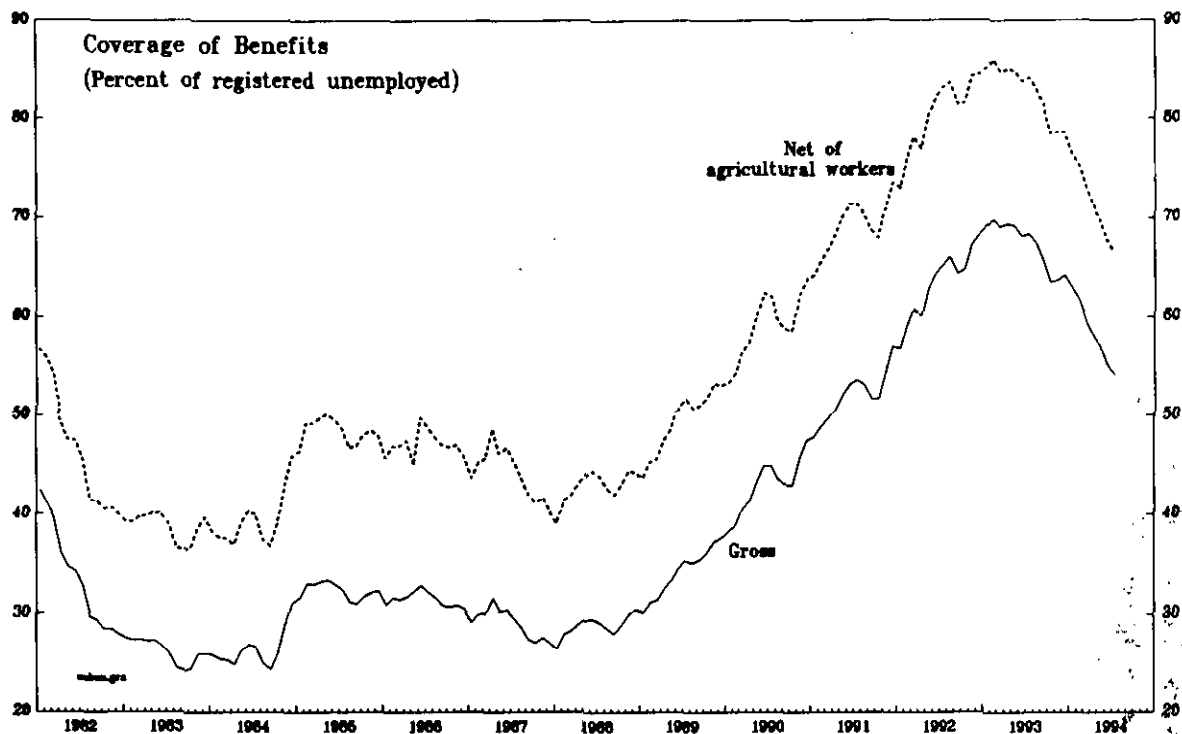|	Individual Dismissals				Collective Dismissals		Total Dismissals					
	Processed by Mediation and Prior Agreement		Processed by Social Tribunals					Total Amounts (Millions of Pesetas)	Payments by FOGASA 1/		Cost to the enterprise	
	Total No. of Workers Affected	Total Amounts (Millions of Pesetas)	No. of Workers Affected	Total Amounts (Millions of Pesetas)	No. of Workers Affected	Amounts (Millions of Pesetas)	No. of Workers Affected		Millions of Pesetas	Per-cent	Millions of Pesetas	Per-cent
1984	156,441	92,634.7	62,286	30,409.5	68,990	56,835.6	287,717	179,879.8	48,820.4	27.1	131,059.4	72.9
1985	148,814	113,874.9	41,285	25,020.7	74,776	49,442.9	264,875	188,338.5	34,603.5	18.4	153,735.0	81.6
1986	141,469	110,463.8	36,631	26,168.1	56,882	28,181.2	234,982	164,813.1	37,437.6	22.7	127,375.5	77.3
1987	143,594	124,712.3	29,358	19,201.0	48,166	26,749.2	221,118	170,662.6	49,669.5	29.1	120,993.1	70.9
1988	153,007	151,842.1	29,184	20,553.0	56,753	20,165.0	238,944	192,560.1	35,597.8	18.5	156,962.3	81.5
1989	163,027	179,250.8	25,545	18,337.0	46,322	25,663.0	234,894	223,250.8	29,324.3	13.1	193,926.5	86.9
1990	174,605	211,221.2	25,886	18,667.2	48,591	30,550.7	249,082	260,439.1	26,801.2	10.3	233,637.9	89.7
1991	193,829	282,476.8	27,444	22,966.3	68,032	44,968.2	289,305	350,411.3	30,353.5	8.7	320,057.8	91.3
1992	188,723	345,260.1	29,981	34,905.6	83,237	57,148.0	301,941	437,313.7	35,149.9	8.0	402,163.8	92.0
1993	228,709	542,830.2	36,996	45,581.2	118,744	88,501.2	384,449	676,912.6	50,734.4	7.5	626,178.2	92.5
1994												
January	16,411	44,157.8	2,400	2,344.4	9,109	6,994.4	27,920	53,496.9	928.8	1.7	52,567.8	98.3
February	16,457	34,914.4	2,816	3,240.5	7,710	5,802.2	26,983	43,957.1	5,792.1	13.2	38,165.0	86.8
March	15,350	29,608.2	3,074	2,980.2	7,675	5,689.0	26,099	38,277.4	5,376.4	14.0	32,901.0	86.0
April	13,218	26,797.7	2,682	2,610.5	6,314	5,051.4	22,214	34,459.6	5,491.9	15.9	28,967.7	84.1
May	11,962	25,247.9	2,898	3822.7	8,331	6,407.7	23,191	35,478.3	5,824.2	16.4	29,654.1	83.6
June	13,701	29,348.2	2,892	3,420.8	5,869	4,602.2	22,462	37,371.2	5,560.8	14.9	31,810.4	85.1
January-June	87,099	190,074.2	16,762	18,419.1	45,008	34,546.9	148,869	243,040.2	28,974.2	11.9	214,066.0	88.1
July	13,306	30,908.9			5,524	4,327.0			4,976.2			
August	8,731	15,862.0			4,966	3,742.4			3,549.0			

Source: FOGASA is the Wage Guarantee Fund.

previously worked, and a drop in the proportion of long-term unemployed 1/ also contributed to the improved coverage rate in the late 1980s and early 1990s.

The level of unemployment benefits shows a similar positive evolution during the second half of the 1980s. This is also illustrated in Chart 4, which shows an increase in average benefits of roughly 40 percent in real terms between 1986 and 1993. As with the coverage rate, the increase in average benefits was a function both of the unemployment compensation policy of the government and of the structure of unemployment. 2/ The generosity of unemployment benefits is also reflected in the replacement ratio, which until 1993 was among the highest in Europe (Table 3). 3/

3. The labor market reforms

As the unemployment rate began to climb again in 1991 and 1992, the need for a major overhaul of the labor market regulations became increasingly clear. Beginning in 1993, the government responded with a series of reforms. The 1993 budget (approved in December 1992) included provisions to tighten eligibility for unemployment compensation and to cut benefits. In December 1993, a package of reforms was proposed covering a number of aspects of the labor market, including hiring restrictions, workplace regulations, collective bargaining and dismissal costs. A number of these reforms were implemented immediately by decree; others became effective when the corresponding legislation was passed in May 1994. The 1994 budget took additional measures regarding unemployment benefits. This section presents a description of these reforms.

a. Hiring and labor contracts

The labor market reforms introduced several modifications in the process by which workers are hired and the contractual forms under which they may be employed. On the hiring side, the statutory monopoly over job placement held by the National Employment Institute (INEM) was officially abolished and the establishment of non-profit private employment agencies

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1/ Self-employed workers who lose their jobs are not generally covered by contributive benefits, nor are those in search of their first job. Some of the long-term unemployed have exhausted their benefits. The proportion of unemployed who are looking for their first job fell from 35.3 percent in 1988 to 19.9 percent in 1993. The share of those unemployed for more than two years declined from 43.8 percent in 1988 to 28.7 percent in 1993.

2/ Contributive unemployment benefits depend upon the time the person worked before losing her job, and upon the previous wage. Thus, average benefits are higher if higher wage workers lose their jobs, and if the proportion of people receiving contributive benefits (as opposed to non-contributive unemployment support) rises.

3/ OECD (1991).

Table 3. Spain: Replacement Ratios for Unemployment Benefits

(In percent)

	Duration of Unemployment	Two-Thirds Average Salary	Average Salary	Twice Average Salary
1991				
Single person, no children	1 month	96	85	46
	7 months	84	85	46
	13 months	72	77	46
Family with two children, one parent without income	1 month	89	94	58
	7 months	78	82	58
	13 months	67	71	58
1994				
Single person, no children	1 month	83	77	40
	7 months	72	72	40
	13 months	72	72	40
Family with two children one parent without income	1 month	81	82	50
	7 months	71	70	50
	13 months	71	70	50

Source: Ministry of Labor.

was permitted. Temporary employment agencies were also authorized for the first time.

Substantial modifications were made in the regime governing temporary contracts. The reforms ended the virtually unlimited access of firms to temporary contracts by imposing a principal of "causality" on standard temporary employment whereby temporary contracts would be reserved for jobs that were truly temporary in nature. Despite these restrictions, several avenues were left open for other temporary employment. First, current temporary contracts due to expire in 1994 may be renewed for an additional 18 months beyond the previous 3 year limit. Second, the unrestricted use of temporary contracts was retained for certain groups of workers: the long-term unemployed, workers over age 45, and the handicapped. The government has the authority to define annually (in the budget law) the extension of temporary contracts to such special, disadvantaged groups. Third, the reforms created a new apprenticeship contract for workers between 16 and 25 years of age. Firms may use such contracts to hire up to roughly ten percent of their payroll (less for large firms) at below-minimum wages and with reduced social insurance payments. In return, the firms provide training during at least 15 percent of working time.

The labor market reforms also included measures to encourage part-time employment, which is much less common in Spain than in most other industrial countries. 1/ Temporary part-time work is permitted under the same conditions as temporary full-time work. The limits on hours of work permitted in a part-time contract have been lifted, and the social contributions (and corresponding social protections) for workers employed less than 12 hours per week are now minimal.

b. Working conditions

The labor market reforms included provisions to increase functional mobility by eliminating the archaic *Ordenanzas Laborales* and to replace them with negotiated agreements between unions and employers concerning the definition of occupational categories and the flexibility to work between categories. The reform law specified that the *Ordenanzas* would be repealed at the end of 1994 and called for their replacement by occupational definitions and workplace conditions negotiated in collective bargaining agreements. If such collective agreements were not reached by the deadline, the Ministry of Labor had the option to either extend the relevant *Ordenanzas* for one additional year, or to revoke them preemptively. In October 1994, the employers confederation and the principal labor unions signed a framework agreement to govern the sectoral negotiations on occupational categories. Of 119 *Ordenanzas* still in effect in 1994,

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1/ In 1992, the share of employment in part-time work in Spain was 5.9 percent, which was the second lowest figure among 13 reporting OECD countries (next to Italy). By contrast, the rate in France was 12.7 percent; the UK was 23.2 percent, and the US 17.5 percent. See OECD (1993).

negotiated agreements were reached to eliminate 44, and to partially eliminate 7 others. On December 29, 1994, the Ministry of Labor announced that 61 *Ordenanzas* would be retained until the end of 1995; 9 others would be partially retained (including the 7 negotiated). Thus, a total of 49 *Ordenanzas* were eliminated; 44 by agreement and 5 preemptively by the Ministry. 1/

In other aspects of labor market conditions, the reforms included some relaxation of restrictions on length of the working day and overtime hours. Employers may now deploy workers more flexibly, as long as the total hours do not exceed certain limits, and providing for minimum daily and weekly rest periods. The requirement for administrative approval for geographical mobility was eliminated. Government authorities do retain, however, the power to delay transfers by up to six months. 2/

c. **Collective bargaining**

The 1994 reform law (Ley 11/94) explicitly lays out two motivations for the labor market reforms:

> "... the reform of the [Workers'] Statute moves in two directions: to facilitate the development of collective bargaining as the regulating force in labor relations, and introduce adaptive mechanisms which are equitably shared among the different aspects of the employment relationship." 3/

This emphasis on increasing the importance of collective bargaining is seen in several facets of the reform. First, many of the elements of working conditions previously covered by the *Ordenanzas Laborales* are now to be governed by collective bargaining agreements. Second, the reforms reemphasize the importance of collective negotiation in redundancies. Third, provisions are made to improve the representativeness of employers' negotiators in the sectoral level bargaining, by requiring that firms representing more than half of the total employment in the sector be included in the process. Fourth, the reforms contain provisions to increase the decentralization of collective bargaining, by the inclusion of *clausulas de descuelgue* ("detachment clauses") which permit firms to opt out of the

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1/ *Boletin Oficial del Estado*, 29 Dec. 1994.
2/ *Guia Laboral- 1994*.
3/ Ley 11/94 as cited in Torres Gallego (1994).

sectoral level collective bargaining agreements. 1/ Finally, collective agreements may now explicitly specify which provisions are to have effectiveness beyond the life of the agreement. Previously, most important clauses of contract (including wage provisions, working conditions, and work schedules) were considered "normative" which meant that they were perpetuated beyond the life of the contract unless supplanted by a new agreement.

d. Dismissal costs

The recent labor market reforms did not directly modify the severance pay requirements that constitute the core of dismissal costs in the Spanish economy. Nevertheless, steps were taken that could make the dismissal process more agile and less bureaucratic, thus reducing the time costs of redundancies for firms. Three changes in this respect are particularly important. First, the range of causes for dismissal deemed "justified" has been expanded, with the intention of both reducing the number of cases of individual dismissals subject to lengthy (and costly) appeals, and of easing the conditions for justifying mass layoffs. In addition to "economic" and "technical" reasons for dismissal, firms are now permitted to present "organizational" and "production-related" causes for redundancies. 2/ Second, although that requirement of prior administrative approval for mass redundancies was not lifted, firms are now permitted to use individual dismissal procedures for redundancies affecting less than 10 percent of the workforce (up to 30 workers maximum). Third, the consultation period required for mass dismissals has been reduced. Whereas previously, firms were required to engage in a 30 day consultation period with the trade unions followed by a 30 day approval period for the government authorities, now firms may request the approval at the outset of negotiations and a decision must be issued within 15 days of the conclusion of the consultation period. Thus, the time required has been reduced from 60 days to 45 days. Furthermore, if the authorities fail to rule within the allotted time, the firm's proposal is considered approved. 3/

1/ Sectoral level collective agreements are required to contain clauses specifying the conditions under which individual firms may opt out of the higher level agreement. If no such conditions are specified, then a firm may opt out of the sectoral contract if both the employer and workers' representatives agree. The law specifically states that the *clausulas de decuelgue* are designed for firms whose economic stability would be endangered by the application of the sectoral wage increase. These requirements (that trade unions consent and that a threat to the stability of the firm exist) suggest that the scope for decentralized bargaining is still limited.

2/ Torres Gallego (1994); inforMISEP, (1994) No. 46.

3/ Previously, if the labor authorities failed to respond in the allotted time, the request was considered rejected.

e.   Unemployment benefits

The system of unemployment compensation was one of the first areas to be tackled in the recent labor market reforms. Reforms were initiated in late 1992 and were further extended in the budget law of the 1993. Steps were taken to tighten eligibility requirements and to reduce both the level and the average duration of benefits.

With respect to eligibility requirements, the period of work required in order to become eligible for benefits was raised from 6 months in the previous 4 years, to 12 months in the previous 6 years. Furthermore, the ratio between the time worked and the duration of benefits, which previously was 2:1, was raised to 3:1, reducing the duration of eligibility. Whereas before the reforms, 6 months of work entitled a person to 3 months of benefits, one year implied 6 months of benefits, etc., the new regulations imply that a person who has worked less than one year receives no benefits, one with one year receives only 4 months of benefits, 2 years of work translates into 8 months of benefits, and so on. This change not only reduced the generosity of benefits, but also helped to stop the deliberate "rotation" of workers into unemployment. 1/

The level of unemployment benefits was reduced in three main ways. First, the level of benefits (as a share of previous salary) was reduced as shown in Table 3. Second, the minimum benefit level for an unemployed person without children was reduced from 100 percent of the minimum wage to 75 percent. Third, benefits were made partially subject to taxation and social security contributions. Unemployed people now make social insurance contributions at 65 percent of the rate of an employed person, and benefits have become subject to income tax withholding. These three steps have significantly reduced the high replacement ratio which afflicted the unemployment compensation system before the reforms. As demonstrated in Table 3, the replacement ratio in the first months of unemployment has fallen from 85 percent to 77 percent for a single person at the average wage and from 94 percent to 82 percent for a typical person with a family.

4.   Impacts of the reforms on the labor market

The labor market reforms in Spain are much too recent to permit a full assessment on their impact on employment and wages. The principal reforms in unemployment compensation have been in place for only two years, while those governing other aspects of the labor market have been in effect for one year or less. Nevertheless, there are some monthly and quarterly data which could shed some light on likely effectiveness of some of the measures.

1/ Under the previous system, there were reports of employers hiring workers on the basis of a cycle of six months of work followed by three months of unemployment, followed by six more months work, etc. This tactic has been largely frustrated by the new regulations.

In addition, analysis of the remaining labor market restrictions can be used to draw conclusions concerning the adequacy of the reforms.

a.   Overall impacts

The early global indicators on the evolution of wages and employment during 1994 have generally been positive. Average wage settlements have shown significant moderation, falling from 7.3 percent in 1993, to only 3.5 percent for the first 11 months of 1994. Despite a corresponding drop in the inflation (from 5.0 percent in 1993 to 4.3 percent in 1994), this translates into a decline in real wages for the first time in a decade. Employment creation has also been relatively strong. Employment growth turned positive in the second and third quarters of 1994 as the country emerged from the recession. The increase in employment, while modest, has occurred at an earlier stage in the economic recovery than in previous recessions. While the labor market reforms may well have played a role in these developments, caution should be exercised in attributing them primarily to the reforms. 1/

Despite the encouraging developments, there are some worrisome signs. As regards wages settlements, there are early indications that wage increases may rebound in 1995. The trade unions have announced a stronger emphasis on wage increases than in 1994, when the union focus was on negotiating concessions in working conditions in the context of replacing the *Ordenanzas Laborales*. The 1994 average wage increase was also held down by the wage freeze in the public sector, which will be raised in 1995. Furthermore, it should be noted that the improved 1994 figures cover a smaller number of wage settlements than in previous years, since many wage negotiations have been delayed by the reforms. As these (more intractable) outstanding contracts are settled, it is possible that the average increase for the year will rise. (See below for a discussion of problems in employment).

b.   Hiring

The new hiring provisions of the reforms have already had a significant impact on the structure of labor contracts. Apprenticeship and part-time contracts have jumped substantially. Temporary contracts were signed in the first half of 1994 at a pace 46 percent above the rate in 1993, with over

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1/ Both the moderation in wages and the early recovery in employment may well be more the result of the sharper-than-normal decline in employment that occurred during the downturn than of labor market reforms. The rapid drop in employment in 1992 and 1993 affected permanent as well as temporary workers, and thus exposed labor market insiders to downward wage pressure for the first time in years. After such unusually severe downsizing in firms, it would also be expected that employment might recover more quickly as the economy turned around.

400,000 workers hired. 1/ The new apprenticeship contracts were also widely used. Firms hired 114,000 apprentices in the first six months of 1994.

The negative side of the hiring situation is that the widespread use of new contracts may have given a once-off boost in the employment levels which will not be sustained as firms fully adjust the structure of their payrolls to the new legal framework. Between the end of 1993 and the third quarter of 1994, *total* employment climbed by 63.8 thousand workers. But this figure reflects transitory increases in temporary and apprenticeship contracts that will not be sustained into 1995. It is likely that the rate of 114,000 apprentices hired in the first six months of 1994 will moderate as firms will reached the legal limit on the number of apprentices per firm.

The hiring of temporary workers also dropped off sharply in the second half of 1994. It appears that firms "stocked up" on temporary workers in the months before the new regime restricted temporary contracts. Before the new restrictions took effect, firms were hiring temporary workers at the rate of 45,000 per month (roughly the same pace as in 1993), but after the new law was implemented (on May 24, 1994), the pace of temporary hires dropped to only 7,000 per month. This drop in temporary hires may begin to produce a decline in the rate of growth of employment in 1995. Indeed, it should be noted that the increase in apprentices and part-time workers has masked the fact permanent employment in Spain has continued to fall during 1994. The number of permanent workers fell by 120,000 (2.1 percent) between the end of 1993 and Q3 of 1994.

c. **Working conditions and collective bargaining**

In the areas of working conditions and collective bargaining, the effects of the reforms are not easily measured with short-run indicators, since the changes will be felt only gradually. What can be said is that the uncertainty surrounding the reforms delayed substantially the conclusion of collective bargaining agreements for 1994; many have spilled over into 1995. The data through November 1994 indicate that there has been no significant change in the proportion of workers covered by firm level collective bargaining agreements, despite the reform provisions designed to facilitate the decentralization of bargaining. 2/

1/ This increase in part-time contracts over 1993 was not simply a function of the economic recovery, since the 1994 pace is also well above that of previous (non-recessionary) years.

2/ It should be acknowledged that the bulk of collective bargaining agreements take effect in January of each year. Since the new reforms were not yet fully in place in January 1994, it will not be possible to fully evaluate the degree of centralization in bargaining under the new system until data are available for early 1995.

Independent of the trends in the preliminary data, there are reasons for concern that the changes implemented may be insufficient to have a significant effect on rigidities in the utilization of labor. By delegating the reform of many aspects of the employer-employee relationship to the collective bargaining process without in most cases significantly altering the underlying legislation, the unions have been given little incentive to accept increased flexibility unless in return they are granted concessions in other areas (e.g., higher wages). Expressed in game theoretic terms, by increasing the scope for bargaining without altering the default payoffs (which are perceived as favoring the trade unions), the government has left the unions in a strong bargaining position from which to resist any changes in the outcome.

d.   Dismissal costs

There has been some downward movement in severance pay costs according to data available for the first months of 1994 (Table 2). The average mediated settlement dropped from 2.37 million pesetas to 2.18 million pesetas, while the overall average dropped from 1.76 million pesetas to 1.63 million. However, these levels are still well above pre-1992 figures, and it would premature to attribute the decline to the labor market reforms.

There are early indications that the reforms facilitating individual dismissals instead of collective dismissals may be having an effect, although it may not be an entirely positive one. While during the first six months of 1994 the share of mass dismissals fell marginally (from 30.8 percent to 30.2 percent), the share of dismissals decided by social courts jumped (from 9.6 percent to 11.2 percent). Businessmen have expressed concerns that the new procedures may contribute to the "judicialization" of the firing process, as workers previously covered by mass layoff procedures are now dismissed individually and take their cases to the social tribunals. It would be premature to draw a conclusion at this time, but the early data suggest that these fears may have some justification. 1/

e.   Unemployment benefits

In the area of unemployment benefits, there is clear evidence that the reforms have had a significant impact. As discussed above, replacement ratios have dropped significantly (Table 3). The percentage of the unemployed covered by benefits has also fallen. From a peak of 69.2 percent

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1/ Two clarifications are in order. On the one hand, the data reported may understate "judicialization", since they only report case resolved and there is a lag between appeal and resolution. On the other hand, it should be acknowledged that the share of cases taken to social tribunals also varies according to the economic cycle, with fewer appeals occurring in economic downturns. Thus, the increase in appeals in 1994 may be due in part to the economic recovery.

in January of 1993, the coverage rate had fallen to 53.8 percent by August of 1994. The absolute number of unemployed covered has dropped as well, despite the rise in average employment. While part of this drop is due to an increase in first-time job seekers and in the number of long-term unemployed, there has also been a clear effect of the tightening of eligibility requirements.

A further manifestation of the reform in benefits is found in the preliminary government expenditure numbers for 1994, which indicate that expenditure on unemployment benefits fell by 4.8 percent from 1993 levels (from 3.5 percent to 3.2 percent of GDP) despite the increase in unemployment. In fact, the true drop was probably even greater that the official figures report, since unemployment expenditures for 1994 included back payments for overspending in 1993.

It will take time to see if this reduction in the generosity of unemployment translates into a significant reduction in so-called "voluntary" unemployment and increases the speed at which the unemployed move back into jobs. Replacement ratios are still quite high for low and medium income workers during the first two years of unemployment, and it should be recalled that unemployment compensation is paid in addition to severance pay. Thus, a permanent worker earning average wages who loses his job will initially receive at least 77 percent of his previous salary plus an average of nearly one year in wages as severance pay! 1/

5. Conclusions

The government has taken major steps in reforming the labor market in 1993 and 1994. The measures undertaken cover virtually every aspect of the labor market, from hiring procedures and contracts, to working conditions, to dismissals. The unemployment benefit system was particularly salient in moving to tighten eligibility criteria and lower the generosity of benefits while retaining fundamental social protections. Preliminary data from the first months of the reforms show some positive signs. At the aggregate level, employment is climbing again after the sharp fall in the recent recession, and wage settlements have moderated significantly in 1994. There are also positive signs in some specific labor market areas--part-time work is rising, severance pay and expenditures on unemployment benefits are falling, and some progress has been made in increasing functional and geographical flexibility via the elimination of some *Ordenanzas Laborales* and relaxation of restrictions on transfers.

1/ Workers dismissed justifiably will have to wait 3 months after losing their jobs to claim their benefits. Those whose dismissal is ruled unjustified may collect benefits immediately. Recall however, that of those cases where the justification for dismissal is challenged in the social tribunals, nearly 80 percent of the decisions favor the employee.

Despite these encouraging steps, this paper has pointed out that there are also worrying signs in the recent data as well as nagging concerns that the reforms have not been far-reaching enough to reduce substantially the unemployment rate over the medium term. The number of permanent workers in the economy is still declining, and the increase in part-time and temporary workers will likely fall off significantly in 1995, as new "equilibrium" levels are reached. Flexibility in the use of labor in the work place is still tightly circumscribed and more than half of the antiquated *Ordenanzas Laborales* slated for elimination by the end of 1994 have been extended into 1995. Dismissal costs, while moderating, are still at historically high levels.

Particular concerns about the medium-term prospects for reducing unemployment center on three aspects of the labor market where reforms have thus far been either timid or counterproductive. First, the modification of the different contracts under which workers are employed has resulted in some minor improvements in the flexibility of permanent employment, but there has been a significant loss of flexibility due to the restrictions placed on temporary employment. Taken together, these changes appear to have produced a net loss in flexibility to the market as a whole. Second, little has been done to reduce dismissal costs. These costs constitute the main barrier to employment flexibility and also perpetuate high wage settlements by exacerbating insider-outsider bargaining effects. Finally, the renewed emphasis on collective bargaining in the government's reforms, while laudable in terms of encouraging worker participation and emphasizing consultation rather than confrontation in industrial relations, will not result in moderation in wages and improvement in the level of employment unless bargaining is more fully decentralized and unless the "default" payoffs (i.e., what happens if an agreement is not concluded) are less skewed in favor of the trade unions.

It appears inevitable that further reforms must be undertaken if Spain is to reduce unemployment from 23 percent at present to below 10 percent over the medium term. The recent reforms were an important and difficult first step, but they will not be sufficient to solve Spain's long-term unemployment problem.

The Impact of Dismissal Costs
on Employment: A Review of the Literature

One of the most important rigidities of the labor market in Spain is the high cost of dismissals. Legally mandated minimum severance pay is relatively generous (20 days per year of seniority for permanent workers), but actual payments are much higher. In addition to these high monetary costs, employers contemplating redundancies face either a time-consuming process of governmental administrative authorization (which includes an obligatory period of negotiation with the workers), or a procedure for individual dismissals in which costly appeals to social tribunals are the norm. Although these administrative procedures have ostensibly been simplified as part of the 1993-94 labor market reforms, it is not clear that in practice the overall costs of dismissal have been significantly reduced.

Businessmen and economists who study the Spanish labor market are virtually unanimous in the opinion that these high dismissal costs act as a major deterrent to the creation of permanent jobs, and thus have been contributing factor to the high Spanish unemployment rate. It is somewhat surprising, therefore, that this widespread "common sense" opinion that high dismissal costs contribute to high unemployment is not firmly grounded in empirical studies, nor is it supported by the traditional theoretical literature on the impact of firing costs on the labor market.

This apparent conflict between the labor market literature on dismissals and the consensus opinion of experts on Spain is explained in two ways. First, there has been a confusion in the traditional literature between the direct effects of dismissal costs on hiring and firing patterns over the economic cycle (where the impact on employment is not generally large), and the powerful indirect effects on employment through the upward pressure dismissal costs have on raising insiders' wages in an insider-outsider bargaining framework. The second reason for the apparent conflict arises in the relative absence of strong empirical work on the actual relationship between firing costs and employment.

a.   The theoretical literature

Beginning with the work of Nickell (1978), a number of economists have developed theoretical models of the impact of firing costs on employment and unemployment. Nickell's original paper presented a model of hiring and firing decisions of firms during different phases of an economic cycle. He argued that the presence of increased firing costs will indeed discourage firms contracting labor, reducing employment; however, there will be a corresponding *higher* level of employment during cyclical downturns. The overall impact on employment is ambiguous.

Nickell's conclusions are echoed in a number of other theoretical studies. Gavin (1986) uses a model incorporating additional features, such as voluntary quits and explicit discounting of the future by firms. Notwithstanding the additional features of the Gavin model, his conclusion is the same--firing costs do not have an unambiguously negative effect on

employment over the full business cycle. Using a dynamic control theory approach, a recent paper by Bentolila and Bertola (1990) concludes that "with realistic parameters, firing costs do not have large effects on *hiring* conditions, nor do high firing costs reduce the *average* level of employment... ." 1/ A more extreme case is that of Booth (1993), who uses a Nash bargaining model to argue that redundancy payments have no effect on employment levels and actually increase the utility of both workers and employers, vis-a-vis a bargain without redundancy payments.

On the other hand, the theoretical work of Lindbeck and Snower (1984) on insider-outsider effects on unemployment contrast sharply with those studies finding no overall effect of firing costs on employment. Lindbeck and Snower argue that the existence of firing costs can be the driving force generating insider-outsider effects, and furthermore, that insiders have clear incentives to maximize those costs. This effect exists even where unionization is absent (though of course unionism exacerbates the effect). They conclude that "the greater the firing-hiring costs and the greater the insider-outsider productivity differential, the greater the level of unemployment" (p. 15).

Clearly, most studies on dismissal costs fail to incorporate fully these insider-outsider effects of dismissal costs on wages, and thus ignore the primary mechanism by which these costs affect hiring. 2/ High firing costs affect employment decisions not primarily because the costs themselves as so high that they discourage hiring, but rather because they permit insiders to raise real wages while ignoring the potential competition of the unemployed who would be willing to work for lower wages. As a recent CEPR study on unemployment (1994) in Spain concludes:

> By increasing the protection of employed workers, [firing costs] reduce the risk that these workers will find themselves unemployed. Thus, it decreases the effect of labor market conditions on wage determination. And this, in turn, leads to the persistence of unemployment.

b.   Empirical evidence

In the empirical side, the evidence on the impact of dismissal costs is also somewhat confused. There have been few formal econometric studies in

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1/ p. 381 (italics are original). The authors claim that despite this result, their model can help explain the dynamics of European employment in the 1980s. The model suggests that increased uncertainty in demand increases the importance of firing costs to the hiring decision; thus during the late 1970s, the increased economic uncertainty after the oil shock combined with higher dismissal costs to hold unemployment artificially high. An after effect of this situation was the low hiring rates and increasing unemployment of the 1980s. As the authors themselves acknowledge, however, this model still relies upon traditional factor affecting labor demand to drive the outcome.

2/ This is the problem with Gavin (1986); Bentolila and Bertola (1990), and other studies.

this area, and those that do exist vary widely in their conclusions. In a 1982 paper, Nickell finds, paradoxically, that for the U.K. an increase in unfair dismissal cases (a proxy for severance costs) actually lowers the equilibrium unemployment rate significantly. Studies of the impact of German labor market reforms designed to lower firing costs through the introduction of fixed-term contracts produce ambiguous conclusions regarding their effects on employment. 1/

For Spain, the empirical question of the impact of dismissal costs of employment has yet to be adequately studied. Studies of temporary contracts in Spain seem to show significantly positive effects on employment creation. Inferences can be made from the work on temporary contracts (Bentolila and St.-Paul, 1992; Jimeno and Toharía, 1993; Bentolila and Dolado, 1994) which suggest that because temporary contracts have had a large impact on employment and one of the main differences between permanent and temporary contract lies precisely in the level of dismissal costs, therefore dismissal costs must be important. This interpretation would lead to the conclusion that relatively large gains in employment could be achieved from reduction in firing costs. For example, Bentolila and Saint-Paul (1992) provide evidence that employment was increased substantially as the result of the expansion of temporary contracts (with low dismissal costs) in 1984. 2/ Unfortunately, the issue of dismissal costs has been addressed only indirectly in the empirical literature on Spain, so more direct evidence does not exist.

While the exact magnitude of the effect remains to be studied, it is likely that dismissal costs play a large role in perpetuating the dualism of the labor market, maintaining real wages even in the face of high unemployment rates, and in the persistence of unemployment over time. As this brief annex has shown, there is a clear need for additional research (both empirical and theoretical) which would explore more directly the link between dismissal costs and unemployment in the Spanish economy.

1/ See Hunt (1994). Hunt's study does show an improvement in the speed of employment adjustment in the German labor market, but she was unable to attribute it to lower firing costs. This may be because labor costs did not decline significantly despite the reforms, or because although costs did decline, they do not impact in a major way on the hiring decision.

2/ The conclusion that the lower dismissal costs of temporary contracts produce higher employment is tempered by two features of the result. First, the analysis suggests that the sharp increase in employment after the introduction of temporary contracts was in part a temporary consequence of overshooting of the long-run equilibrium employment level. Second, the authors suggest that the jump in employment was partly due to an increase in cyclical sensitivity of employment, *not because of an increase in the average employment level*. Thus, the Bentolila and Saint-Paul result could be seen as largely consistent with the conclusion of the theoretical studies of Nickell and others which conclude that firing costs affect the cyclical variations of unemployment but average employment over the cycle.

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III. Inflation Persistence in Spain 1/

1. Introduction

Spain has experienced higher inflation than most other industrial
countries since the 1970s. Inflation performance improved significantly in
the mid-1980s, both in absolute and in relative terms. Since then, however,
there has been little further progress, despite Spain's decisions, first, to
participate in the exchange rate mechanism of the European Monetary System
and, subsequently, to seek to converge toward the inflation rates of the
best-performing EU member countries. Even in the wake of the severe
recession of 1992-93, with unemployment around 24 percent of the labor
force, the rate of increase in consumer prices has moderated only slightly,
from over 6.0 percent a year in 1989-92 to 4.7 percent in 1994.

This paper investigates the reasons behind the persistence of inflation
in Spain. Section 2 summarizes inflation performance over the past
15 years. Section 3 places it in the context of changes in monetary, fiscal
and incomes policies and the behavior of aggregate demand. Section 4
provides information on costs, focusing particularly on the impacts of wage
behavior. Section 5 discusses sectoral differences in price behavior and
the influences of product market rigidities. Concluding remarks are
presented in section 6. An annex presents a model of inflation dynamics
with the objective of testing for the degree to which the change in the
exchange commitment when Spain joined the ERM was accompanied by changes in
the persistence of inflation.

2. Empirical evidence on price performance

a. Aggregate price performance

Spain's inflation performance since 1980 is summarized in Chart 1. We
can distinguish four main periods. There was a gradual deceleration of
inflation in 1980-84 which, nevertheless, was still in the two-digit range
by the end of the period. From end-1984 until mid-1988 inflation decel-
erated further to under 5 percent per annum, with a momentary interruption
caused by the introduction of the VAT as Spain joined the EC in 1986.
Inflation rebounded again to over 6.0 percent per annum in 1989-90, in the
face of a widening of the fiscal deficit and an overheating of aggregate
demand, and has only recently fallen below 5.0 percent.

Chart 1 also provides a measure of underlying inflation, which removes
from the overall CPI those components which have a more erratic behavior,
unprocessed foodstuffs and energy products. Since the mid-1980s the
underlying inflation rate has generally been higher than the rate of
increase in the overall CPI. This has reflected both the weakness of world

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1/ Prepared by D. Gleizer.

Chart III-1

SPAIN
CPI Inflation and Underlying Inflation

red94/inflat

| I II III IV | I II III IV | I II III IV | I II III IV | I II III IV | I II III IV | I II III IV | I II III IV | I II III IV | I II III IV | I II III IV | I II III IV | I II III IV | I II III IV | I II III |
| 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
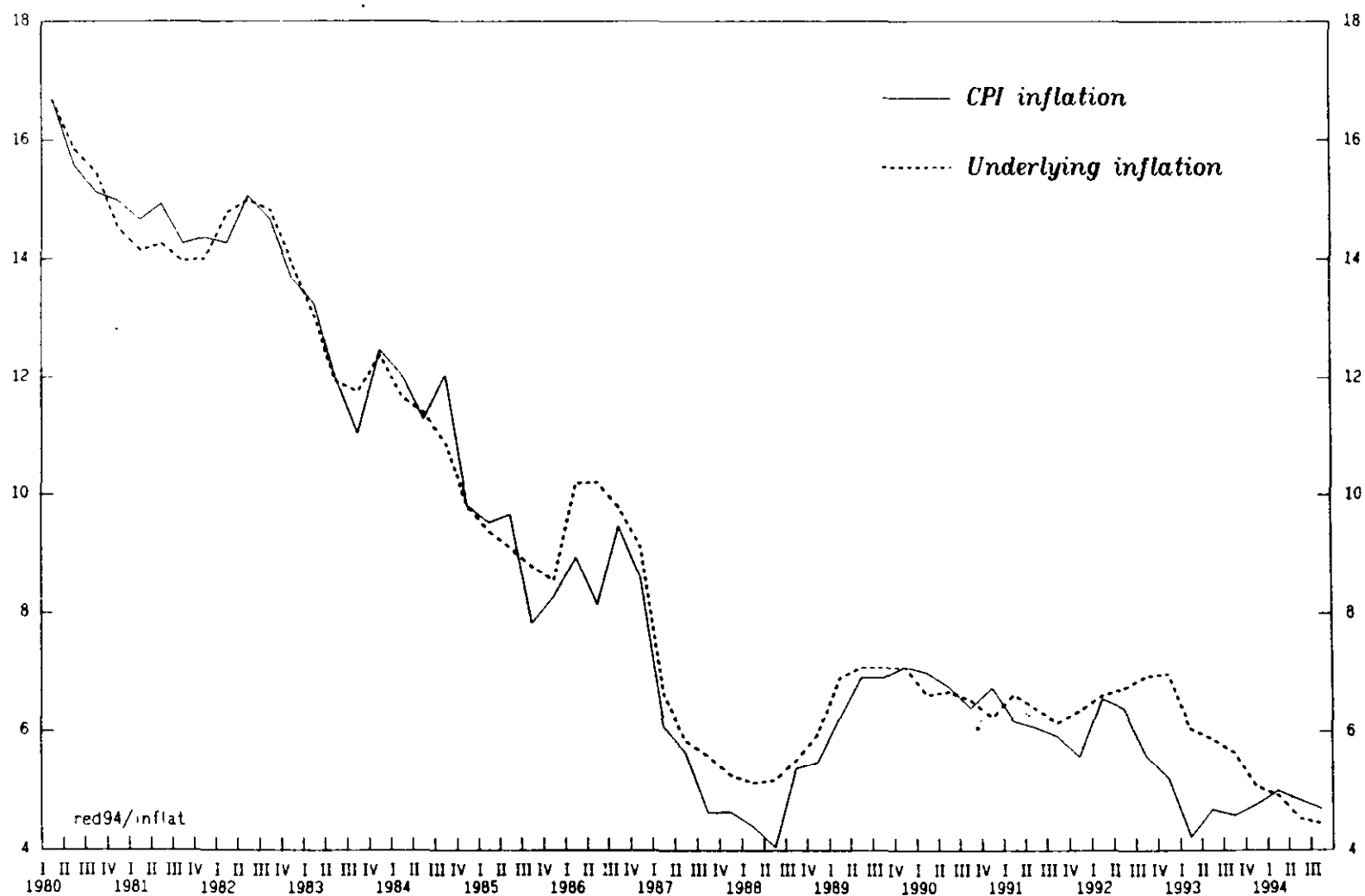
1/ The rates of growth are from a quarter on same quarter in previous year.

oil prices, which have held down the overall inflation rate, and the higher weight given to the price of services in the index of underlying inflation (see below).

As shown in Table 1, Spain's inflation rate has been consistently higher than the average of other EU member countries, and in particular the three members with the best inflation performance. While this differential has been reduced in recent years, it remains around 3.0 percent. In contrast, the inflation differential with OECD member countries has widened.

Table 1. Spain: Inflation Differentials

(In percent per annum)

	Avg. 1980-89	1990	1991	1992	1993	1994-Q2
Rate of inflation in Spain minus average in:						
UE	2.9	1.1	0.9	1.6	1.2	1.7
3 Best UE	5.0	4.2	3.2	3.6	3.2	2.9
OECD 1/	4.4	1.5	1.5	2.7	1.7	2.5

Source: Ministerio de Economia y Hacienda.

1/ Excluding Turkey.

b. Sectoral price performance

One of the distinctive features of the Spanish inflationary process is its dual character, whereby the prices of nontradable goods have been growing much faster than the prices of tradables. This phenomenon is common to a number of European countries and has a direct bearing on the evolution of the real exchange rate, i.e., the relative price of nontradable and tradable goods. In this section we describe these developments by looking at domestic relative prices of services and industrial goods (a proxy for the distinction between tradables and nontradables). 1/

Chart 2 depicts alternative measures of the evolution of inflation differentials in the two sectors. Panel A shows the ratio of the value-added deflator in manufacturing sector relative to that of the services sector, whereas panel B depicts the evolution of the industrial (non-

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1/ Because of data availability, the focus is in the industrial (tradable) sector versus services (nontradable) sector.

construction) and of the services components of the CPI. Both charts clearly show a steady decline in the relative price of industry with respect to services.

The phenomenon of a higher inflation bias in the service sector in Spain is not new. In the period between 1965 and 1980, the rate of change in the prices of services exceeded that of industrial goods by around 3.5 percent per year, due to the lower productivity of the service sector in a setting of uniform wage growth. 1/ Between 1980 and 1985, before Spain's accession to the EC, however, service goods prices grew at the same rate as those of overall production, and 0.3 points above the overall consumer price index. After Spain's accession to the EC, the duality of inflation in Spain re-emerges, becoming marked after Spain joined the ERM, reflecting the adoption of an anti-inflation strategy centered on an exchange rate anchor and entailing a real effective appreciation of the peseta. Thus, from 1990 to 1992 while industrial prices grew by 1.7 per-cent, service prices measured by the sector's implicit deflator, grew by 8.8 percent, a differential of 7.1 percentage points. Looking at CPI components, the prices of services increased at an average annual rate of 9.9 percent for services compared to 4.6 percent for food and industrial prices), while in 1993 this process slowed somewhat. 2/

The high growth rate of services prices relative to that of goods has been a characteristic of most services and not of specific sub-sectors, as illustrated in Table 2. Nevertheless, the relatively higher growth of health, education, household services, urban transportation and tourism/hotel costs is noteworthy. This group of services is particularly sheltered from competition.

1/ Malo de Molina et al. (1985).

2/ The prices of food and industrial goods incorporate to some extent the impact of high service prices, such as transportation and distribution. The different behavior of the consumer prices of industrial goods and the producer prices of such goods suggests high margins of distribution and commercialization. Indeed, from 1986 to 1993 the former grew by an accumulated 37.3 percent whereas the latter by 17.4 percent.

Chart III-2

SPAIN

Components of CPI and Sectoral Deflators
(In percent)

Components of CPI

——— Services

· · · · · · Manufacturing

red94/service1

I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III
1980   1981   1982   1983   1984   1985   1986   1987   1988   1989   1990   1991   1992   1993   1994

Sectoral Deflators

——— Services deflator

· · · · · Industry deflator
(without construction)

red94/service2

I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV I II III IV
1980   1981   1982   1983   1984   1985   1986   1987   1988   1989   1990   1991   1992   1993

1/ The rates of growth are from a quarter on same quarter in previous year.

Table 2. Spain: Rates of Increase in Service Prices

(Percent per year)

	1989	1990	1991	1992	1993
IPC general	6.9	6.7	5.9	5.9	4.6
IPC services	9.0	9.1	10.1	10.6	8.0
Personal transportation	7.1	7.6	8.4	7.4	6.6
Public transportation (urban)	5.2	4.1	12.6	11.0	10.6
Public transportation (interurban)	4.3	7.2	9.1	7.2	4.0
Telephones and mail	0.3	3.2	5.6	6.3	4.7
Entertainment	5.5	7.3	7.1	8.7	5.8
Education	6.0	7.2	8.2	10.2	8.1
Medicine	8.4	9.6	12.9	12.2	6.6
Rentals	9.1	8.5	8.9	8.4	8.5
Household services	9.6	10.9	10.6	11.0	7.5
Tourism and hotel services	8.7	9.6	9.5	9.7	6.1

Source: Instituto Nacional de Estadística.

3. Demand factors and financial policies

In the 1970s Spain had to contend with the combined economic implications of the restoration of democracy and of two oil shocks. The resulting economic imbalances culminated in a very high rate of inflation. In the wake of the first democratic election in 1977, a broad social pact was reached--The Moncloa Agreements--paving the way for the implementation of an adjustment program. The agreements were signed by the Government and the opposition parties, with the implicit consent of the socialist (UGT) and Communist (CCOO) trade unions and the newly formed employers' association (CEOE). Two of their measures were fundamental for the control of inflation. First, by abolishing indexation to past inflation and shifting to a forward-looking pattern of wage determination, it introduced wage moderation. Second, there was an acceptance of the need for non-accommodating financial policies, including a significant reduction in the growth of liquidity and a sharp increase in interest rates, so as to reduce inflation. These measures were accompanied by the creation of a new

institutional framework for industrial relations ("the workers' statute") in which the principal trade unions and employer associations were recognized as the main actors. (de La Dehesa 1994 and Maravall 1993). 1/

The combination of financial, structural and incomes policies, brought price and wage inflation down from 15.6 percent and 17.3 percent in 1980, respectively, to 8.8 percent and 8.7 percent in 1985, helped by the deceleration in the prices of imported goods, particularly oil. The average growth of GDP over the 1980-1985 period was 1.4 percent, and the unemployment rate jumped from 11.5 percent to 21.6 percent.

The second half of the 1980s was characterized by rapid expansion of domestic demand, coinciding with Spain's accession to the European Community, the liberalization of the exchange and trade system, and favorable international conditions. Real domestic demand grew at an average annual rate of 6.6 percent in 1986-90, led by an average growth of 11.9 percent in real fixed investment. Employment increased on average by 3.0 percent over this period and unemployment rate fell from 21.5 to 16.3 percent of the labor force. This buoyant performance of economic activity was accompanied by further progress in disinflation, particularly up to 1988, due to the maintenance of tight financial policies, wage moderation, and a favorable international environment. After having increased sharply in the early 1980s, the fiscal deficit was reduced from 6.9 percent of GDP in 1985 to 2.8 percent in 1989. A strict monetary policy led to high interest rates and an appreciation of the nominal exchange rate, which in turn contributed to the cheapening of imports, at a time when international commodity prices were weak in U.S. dollar terms.

Subsequently, however, the fiscal deficit widened again, reaching about 5.0 percent of GDP in 1991-92. 2/ This expansionary fiscal stance complicated the conduct of monetary policy. Spain joined the European Exchange Mechanism (ERM) in 1989 as a way to lock in the disinflation gains made in the preceding years, and as a mechanism to foster nominal convergence. The Spanish authorities believed that entry into the ERM and the announcement of a commitment to a quasi-fixed exchange rate was the appropriate way to

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1/ Between 1979 and 1985 several pacts were signed between the principal labor unions and the employers' confederation and, at times, the Government, involving trade-offs between wage moderation and improvements in working conditions and unemployment benefits. The main economic feature of this process of *Concertacion Social* was the shift to a forward-looking indexation of wages to inflation. The two major problems of the pacts were their maintenance of the status quo in the labor market, with all the rigidities inherited from the Franco period, and their contribution to a gradual increase in the fiscal deficit due to large increases in social expenditure.

2/ Estimates of fiscal impulses show that the increase in the general government budgetary deficit over the period 1988-91 was essentially due to a stimulative fiscal stance. See Appendix II in SM/94/10 (1/12/94) for details.

Table 3. Spain: Selected Economic and Financial Indicators

(Percent per year, unless otherwise indicated)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Real GDP growth	1.3	-0.2	1.6	2.2	1.5	2.6	3.2	5.6	5.2	4.7	3.7	2.2	0.7	-1.1
Final demand growth	1.6	-0.7	2.0	1.9	1.0	3.3	4.7	7.8	6.7	7.0	4.5	3.6	2.0	-2.0
Unemployment rate (percentage of labor force)	11.5	14.3	16.4	18.2	20.1	21.6	21.2	20.5	19.5	17.3	16.3	16.3	18.4	22.7
Employment growth	-3.0	-2.6	-0.9	-0.5	-2.4	-1.3	1.4	4.5	3.4	3.4	3.5	0.5	-1.2	-4.0
CPI inflation (average)	15.6	14.5	14.4	12.2	11.3	8.8	8.8	5.2	4.8	6.8	6.7	5.9	5.9	4.6
Overall fiscal balance (percentage of GDP)	-1.9	-2.3	-5.6	-4.7	-5.4	-6.9	-6.0	-3.1	-3.3	-2.8	-3.9	-5.0	-4.5	-7.2
Primary balance (percentage of GDP)	-1.1	-1.5	-4.6	-3.4	-3.4	-3.5	-2.0	0.3	0.1	0.7	-0.4	-0.9	-0.2	-2.3
Overall fiscal impulse (percentage of GDP) 1/	...	-1.1	2.4	-1.5	-0.6	-0.3	-1.0	-1.5	0.9	0.1	0.9	0.1	-2.0	--
ALP growth 2/	16.5	16.7	17.9	15.9	15.1	13.8	12.5	15.7	13.8	13.4	12.6	10.8	5.2	8.6
Domestic credit growth 3/	19.4	19.3	19.7	15.7	12.5	16.6	14.6	16.1	16.9	16.5	11.0	9.1	7.3	4.0
Nominal effective exch. rate 4/	-6.4	-8.2	-5.4	-16.4	-1.4	-2.2	-1.5	0.2	3.0	4.2	4.9	-0.3	-1.8	-12.8
Real effective exchange rate 5/	-4.8	-5.0	-0.6	-12.1	3.5	1.3	4.5	2.5	4.7	6.5	6.6	1.2	0.6	-11.5
Short-term interest rates 6/	15.5	17.0	18.0	20.6	13.5	12.4	11.6	16.0	11.3	14.0	14.6	13.2	12.8	11.3
Long-term interest rates 7/	...	...	16.0	15.7	15.5	...	...	12.2	11.0	13.0	14.3	12.7	12.1	10.5

Source: Bank of Spain.

1/ The fiscal impulse is defined as the change during a given year in the discretionary component of the government balance, expressed as a share of GDP. For details see Appendix II in SM/94/10.
2/ December on December, average of daily balances.
3/ December on December.
4/ Relative to industrial countries.
5/ Based on CPI, relative to industrial countries.
6/ Bank of Spain monetary operations rate.
7/ Three-year government bonds.

- 55 -

attain the discipline and credibility viewed as necessary to set agent's expectations formation in line with inflation in the best-performing member countries. To help contain inflationary pressures, interest rates were raised sharply, which contributed to a systematic overshooting of broad money and credit aggregates. With the peseta at the top of its ERM band, in an attempt to keep money and credit under control, the authorities resorted to temporary direct restrictions on domestic credit to the private sector and a compulsory nonearning deposit on foreign borrowing. These were largely ineffective, and were removed by 1991 and early 1992, respectively.

Real domestic demand started to weaken in late 1990 and 1991, while the loss in external competitiveness fostered a rapid penetration of imports. When the ERM crisis erupted in September 1992, the authorities temporarily resisted the exchange market pressures by raising real short-term interest rates to the 7-9 percent range, which helped to push the economy into recession. Subsequently, the central rate of the peseta was devalued three times between September 1992 and May 1993, by a total of 20 percent.

Throughout this period of weakening of activity and, later, recession, real wages continued to increase significantly. The lack of wage flexibility and high financial costs contributed to a marked squeeze in profit margins followed by bankruptcies and labor shedding. In 1993, employment declined by 4.3 percent, resulting in an increase in productivity and a moderation of the growth of unit labor costs, but also in a sharp rise in the unemployment rate. Partly because of labor and good market rigidities, but also because of the depreciations, inflation continued to react slowly to the growing gaps in labor and product markets, remaining unchanged at 5.9 percent in 1992 and declining to 4.6 percent in 1993.

The question that arises in trying to understand Spain's disinflation experience, particularly after joining the ERM, is how was it possible that wages and consumer prices could continue to increase above the European average despite nonaccommodating monetary policy. The adjustment process expected to take place under these circumstances assumed that over time the real appreciation of the exchange rate would have led to higher unemployment, slower wage growth, and lower inflation. While the increase in unemployment clearly obtained, the equilibrating responses were subdued and extremely slow to take place. It is therefore important to look for some systematic factors that might have mitigated the effect of those equilibrating forces.

In the annex to this paper a simple two-sector, open-economy, model is developed to help investigate the role of the exchange regime and of wage indexation in the process of inflation persistence. The model suggests that dynamics of domestic inflation can be written as the following first order difference equation:

$$\pi_t = \xi_1 \pi_{t-1} + \xi_2 \pi^*_{t-1} + \xi_3 (Y_{t-1} - Y^F_t) + \xi_4 (a - a^{NT}) + \upsilon_t \qquad (1)$$

where inflation in the current period π_t is a function of lagged domestic inflation π_{t-1}, lagged foreign inflation π^*_{t-1}, a measure of demand pressure

proxied by the output gap $(Y_t^T - Y_{t-1})$, and relative productivity growth in the tradables and nontradables sector $(a - a^{NT})$. In this formulation, the coefficient ξ_1 (itself a function of, inter alia, policy parameters and of the degree of indexation in the economy) provides a measure of the degree of inflation persistence. The model shows that if the authorities follow an exchange rate rule that accommodates the differential between domestic and foreign inflation, the inflationary process will exhibit persistence. If, on the other hand, an exchange rate commitment, such as the one that characterizes the ERM, is adopted and perceived as credible by the public, price setting behavior and wage contracts will reflect the fall in inflationary expectations in the economy, generating a change in regime. Thus, if the nominal exchange rate anchor policy is credible, we would empirically observe a structural break in the dynamic properties of inflation. The model shows, however, that if the labor market is characterized by indexation, inflation will display some persistence even in the case in which the authorities choose not to follow accommodative monetary and exchange rate policies. The results obtained in the empirical investigation, however, indicate that there was no structural break in the dynamics of inflation after Spain joined the ERM, suggesting that adopting an exchange rate anchor was not sufficient to lower inflation expectations and thus reduce persistence. It is conceivable that this was due to the fact that the exchange rate commitment was not viewed as part of a credible policy package, both because the fiscal stance was not perceived as consistent with the exchange rate peg, and because inertia-generating features of the wage setting framework in Spain remained unchanged.

4. Supply side factors

a. Cost developments

This section examines the evolution of labor costs, import costs, and corporate margins as determinants of inflation in Spain. The analysis is undertaken by looking at cost and price indicators based on the final demand deflator, which permit an evaluation of the supply-side factors that bear on the development of the prices paid by domestic agents in purchasing goods and services produced both domestically and abroad.

The final demand deflator can be decomposed into a cost component (which, in turn, can be broken down into unit labor costs and import costs), a unit margin component, and net taxes, as follows:

$$FDD = [(w/(y/N) \cdot y/fd) + Pm \cdot M/fd] \cdot (1+r) + T/fd \qquad (2)$$

and

$$r = [E - w \cdot (N-A)]/[w \cdot N + Pm \cdot M] \qquad (3)$$

where, FDD the final demand deflator, w is compensation per worker, y is real GDP, N is total employment, fd is real final demand, Pm the import deflator, M real imports, r is the unit margin, T are taxes net of subsidies, E is the gross operating surplus and A is the number of wage earners. Equation (2) shows that the unit cost involved in satisfying final demand can be regarded as a weighted average of the unit labor costs per

unit of GDP, (w/(y/N), and of the import deflator, Pm, with the weights y/fd and M/fd, which can be regarded as technical coefficients. 1/

Table 4 provides the rate of change of the final demand deflator and of the costs indicator, from 1980 to 1993, as well as the contributions of total costs (labor, imports and taxes) and margins to change in the deflator. The behavior of the domestic demand deflator paralleled that of the CPI in 1980-93.

Up to 1984 the rate of inflation (measured by the final demand deflator) remained in the two digit range, although showing significant deceleration. Unit labor costs were the main contributor to the growth of the cost and price indicators, growing at above 10 percent a year. The first panel of Chart 3 shows the behavior of unit labor costs (per unit of GDP). The second and third panels show the evolution of productivity and compensation per employee, respectively. The contribution of import costs was also significant, particularly in the early years of the decade, reflecting mainly the delayed impact of the second oil shock (Chart 4) and the fact that the authorities allowed for a systematic depreciation of the nominal effective exchange rate in an attempt to maintain the competitiveness of the economy that was being eroded by the price-wage spiral. Net indirect taxes per unit of final demand added substantially to cost and price pressures in the early 1980s, growing at an average 20 percent a year. 2/ Finally, margins contributed on average one fifth of the growth of the final demand deflator during this period.

1/ The unit margin is defined as residual after the above mentioned costs are deducted from the final demand deflator. Therefore, it incorporates not only unit profits, but also the costs of capital and other factors of production not included in the cost indicator. Also, in the definition of unit labor costs, w is compensation per salaried worker and N is total employment. Therefore, w.N is total remuneration in the economy, including non-salaried workers. Thus, in order to define the unit margin r in the formulation above it is necessary to deduct the compensation imputed to non-salaried workers from the gross operating surplus. This is done by assuming that compensation per worker is the same for salaried and non-salaried workers. The methodology follows that presented in Economic Bulletin, Bank of Spain, December 1990, pg. 67-72.

2/ The direct inflationary impact of net indirect tax increases is, of course, temporary. Nevertheless, the existence of indexation practices and the impact on inflation expectations might cause a one-time tax increase to have inflationary repercussions over several periods.

Chart III-3

SPAIN

Growth Rate of Unit Labor Costs and Components
(In percent)

Unit Labor Costs

- Compensation per employee
- Labor cost per unit of GDP
- Productivity per employee

red94/labor

Productivity growth

- Real GDP
- Productivity per employee
- Total employment

red94/labor2

Compensation per employee

- Total compensation
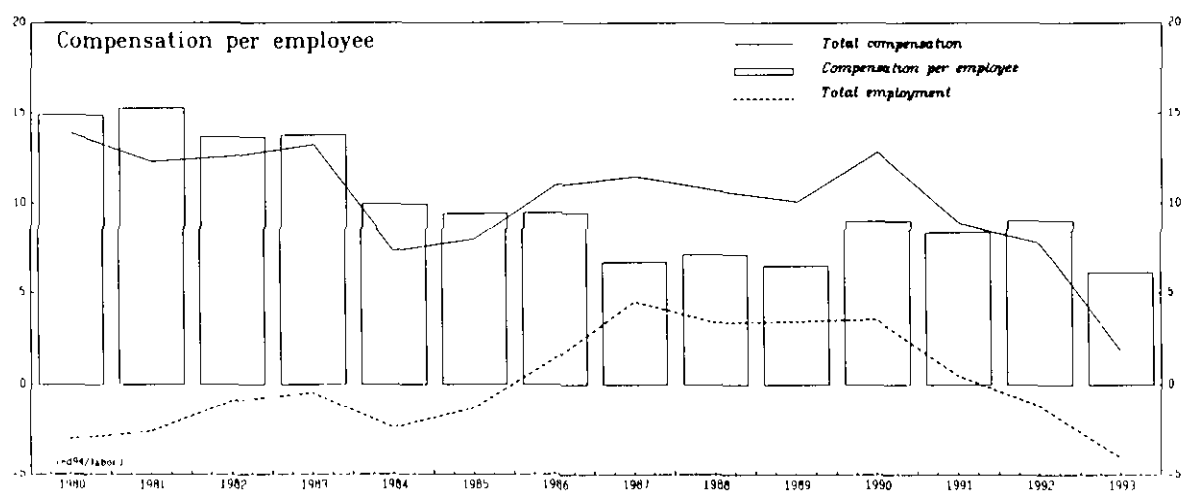- Compensation per employee
- Total employment

red94/labor3
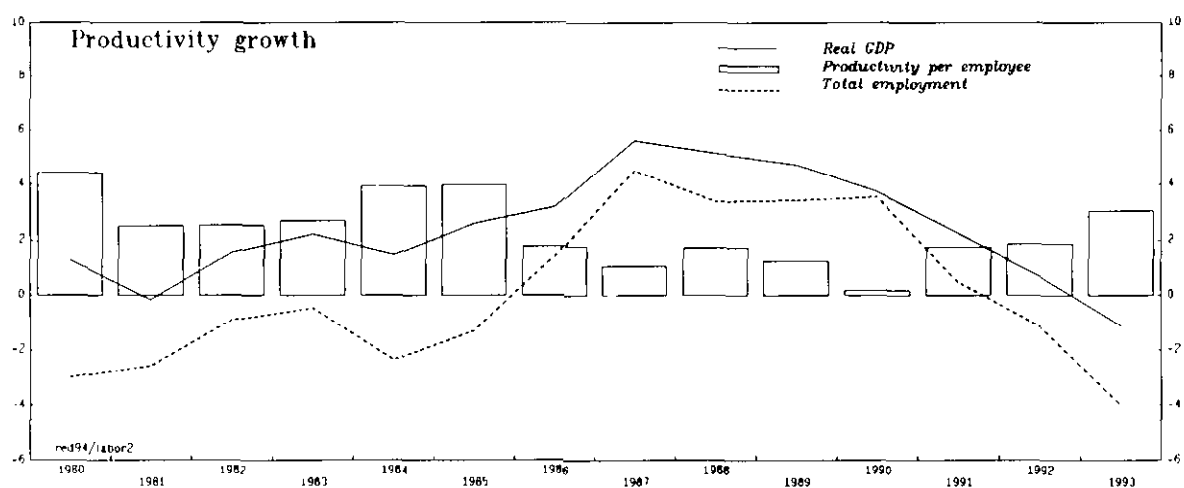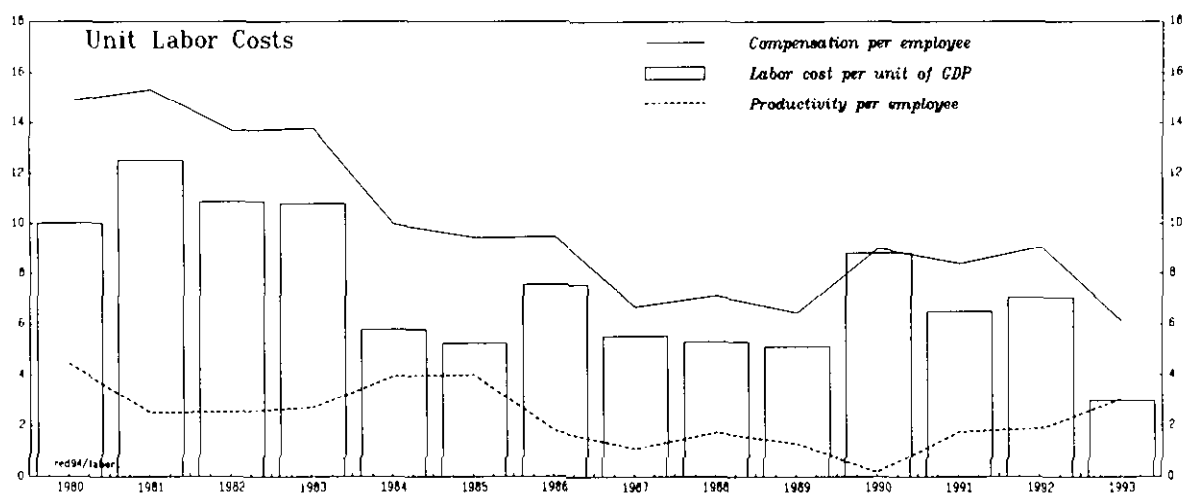
Chart III-4

SPAIN

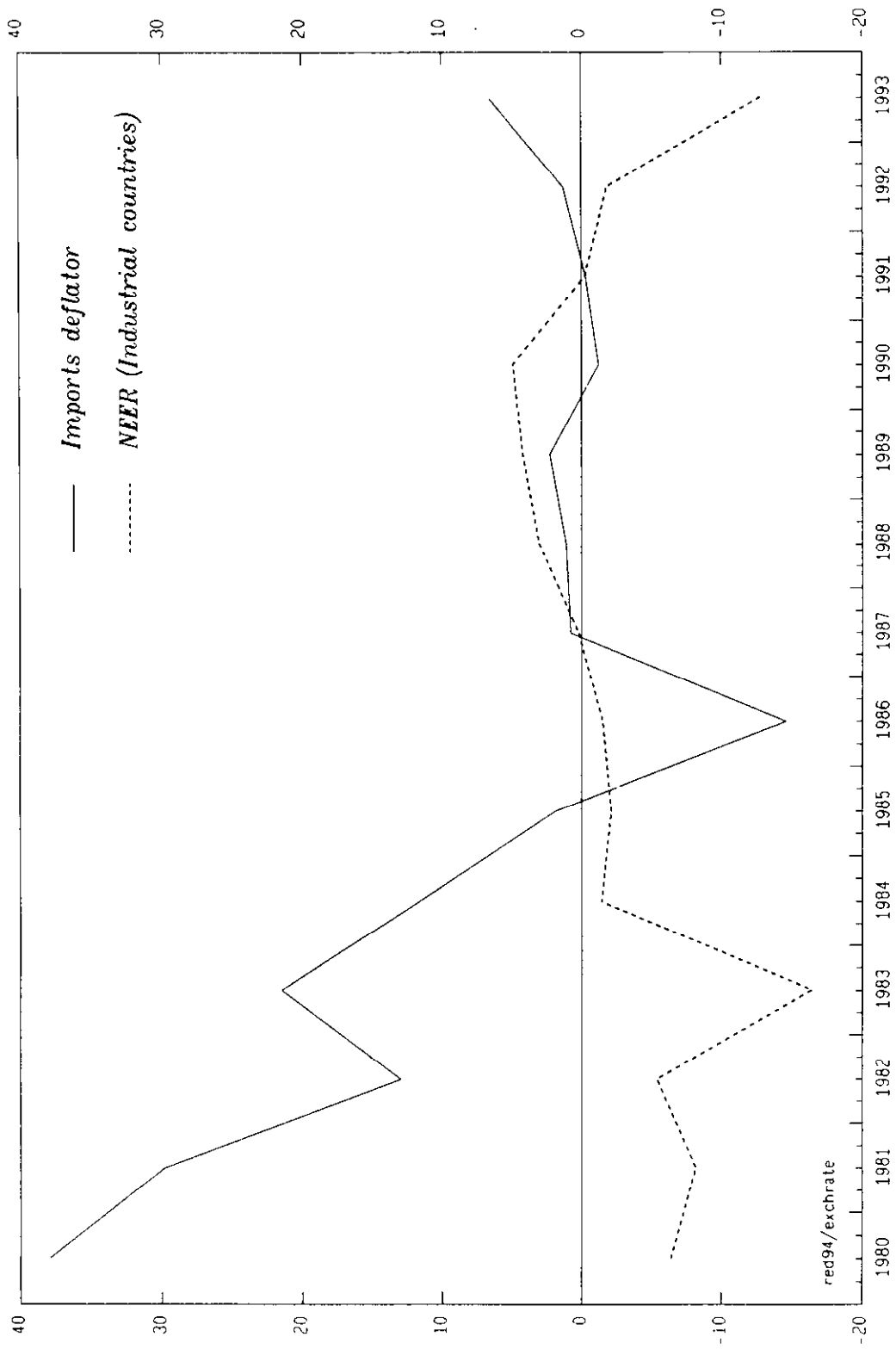# Import Deflator and Nominal Effective Exchange Rate

(In percent)

Legend:
— Imports deflator
----- NEER (Industrial countries)

red94/exchrate

Table 4. Spain: Composition of the Final Demand Deflator

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
	(Growth rates)													
	(Percent per year)													
Labor costs 1/	9.7	13.1	10.4	11.2	6.3	4.5	6.0	3.4	3.8	2.9	8.0	5.1	5.7	3.9
Unit labor cost 2/	10.0	12.5	10.9	10.8	5.8	5.2	7.6	5.5	5.3	5.1	8.8	6.5	7.0	3.0
Compensation per employee	14.9	15.3	13.7	13.8	10.0	9.4	9.5	6.7	7.1	6.4	9.0	8.4	9.0	6.1
Productivity per employee	4.4	2.5	2.5	2.7	3.9	4.0	1.8	1.1	1.7	1.3	0.2	1.8	1.9	3.0
Import costs 1/	39.4	24.8	15.8	19.0	8.5	6.4	-6.7	12.3	8.4	12.1	1.9	4.9	6.1	3.2
Imports deflator	37.1	29.3	12.7	21.6	11.7	1.9	-14.6	0.8	1.1	2.3	-1.2	-0.3	1.3	6.6
Indirect taxes net of subsidies 1/	4.8	59.6	21.9	38.3	21.1	11.1	35.8	3.1	-1.7	7.1	3.8	4.7	13.8	-9.7
COSTS INDICATOR	15.2	17.0	12.1	14.2	7.7	5.4	5.4	5.1	4.2	5.3	6.2	5.0	6.5	2.5
Gross operating surplus	20.1	6.8	22.4	9.1	27.4	13.0	12.6	6.8	8.3	10.8	5.0	8.6	3.7	12.1
FINAL DEMAND DEFLATOR	16.5	15.0	13.8	13.3	11.5	6.9	6.7	5.0	4.8	6.0	5.7	5.5	5.5	5.8
	Contribution to growth													
	(Percentage points)													
COSTS INDICATOR														
Labor	8.4	10.2	7.8	8.2	4.5	3.2	4.2	2.4	2.6	2.0	5.4	3.5	3.9	2.7
Imports	6.2	4.7	3.2	4.0	1.9	1.4	-1.5	2.4	1.8	2.6	0.4	1.1	1.4	0.7
Taxes	0.7	2.1	1.1	2.0	1.3	0.8	2.7	0.3	-0.2	0.6	0.3	0.4	1.2	-0.9
PRICE INDICATOR (Final demand deflator)														
Total costs	12.4	12.1	11.3	10.7	9.3	5.4	5.2	3.8	3.7	4.6	4.3	4.2	4.1	3.8
Gross operating surplus	4.1	2.9	2.5	2.6	2.1	1.5	1.5	1.2	1.1	1.4	1.4	1.3	1.3	1.2
	(Growth rates)													
	(Percent per year)													
Memorandum items:														
Real final demand	1.6	-0.7	2.0	1.9	1.0	3.3	4.7	7.8	6.7	7.0	4.5	3.6	2.0	-2.0
Real imports	3.3	-4.2	4.8	-0.3	-1.8	7.9	14.4	20.1	14.4	17.3	7.8	9.0	6.9	-5.1
Real GDP	1.3	-0.2	1.6	2.2	1.5	2.6	3.2	5.6	5.2	4.7	3.7	2.2	0.7	-1.1
Total employment	-3.0	-2.6	-0.9	-0.5	-2.4	-1.3	1.4	4.5	3.4	3.4	3.5	0.5	-1.2	-4.0
GDP deflator	13.4	12.6	13.9	11.8	11.6	7.7	11.1	5.8	5.7	7.1	7.3	7.1	6.7	4.4
CPI (average on average)	15.6	14.5	14.4	12.2	11.3	8.8	8.8	5.2	4.8	6.8	6.7	5.9	5.9	4.6
Total compensation	13.9	12.3	12.6	13.3	7.4	8.0	11.0	11.5	10.7	10.1	12.9	8.9	7.8	1.8

Sources: Bank of Spain and staff calculations.
1/ Per unit of final demand.
2/ Per unit of output.

Starting in 1985 there was a notable further deceleration in the rate of inflation in Spain, with the rate of change of the final demand deflator reaching a low of 4.8 percent in 1988, as wage moderation coincided with falling import prices, giving rise to a virtuous cycle. Net indirect taxes increased rapidly up to 1986 as Spain brought its indirect taxes up to EC standards, but after this their contribution to the growth of the final demand deflator was small. Throughout this period, there was an increase in the weight of the gross operating surplus and a slower reduction in unit margins.

The period of inflation deceleration was interrupted in the last years of the decade due in large part to an acceleration of wages. Prior to 1990, changes in the composition of employment, such as the large increase in temporary employment, helped moderate the behavior of wages per employee, 1/ and the substitution effect toward imported goods that resulted from rising import penetration, helped contain labor costs per unit of final demand. From 1990 to 1992, however, compensation per employee grew on average by 8.8 percent. This was only partly offset by an increase in productivity per employee, resulting from the strong reduction in employment, particularly in 1991 and 1992, and the increase in ULC jumped to 6.8 percent, on average, during this period. Only in 1993 was there significant moderation in the growth rate of compensation per employee, an effect that was again reinforced by the strong increase in labor productivity that resulted from labor shedding.

The second half of the 1980s was characterized by a large increase in real imports, as a result of Spain's accession to the EC. This coincided with a period of very favorable international price developments and exchange rate appreciation, with the resulting decline in the import deflator tending to dampen the impact of rising labor costs on prices. The implication, however, was that goods produced with domestic labor were loosing ground to goods with foreign labor, the other face of which was the rapid increase in the unemployment rate. The devaluations of the peseta in 1992 and 1993 have since begun to reverse the process of substitution of imports for domestically produced goods and services, and the dampening effect of the import deflator on the cost and price indicators. Other particularly noteworthy factors in recent inflation performance were the strong recovery in the gross operating surplus in 1993, and a 9.7 percent fall in indirect taxes net of subsidies per unit of final demand in that year, due to the combined effect of the recession and the reduction of tariff barriers.

b.   Wage pressure characteristics of Spain's labor market

The previous section showed that by the late 1980s wages resumed their fast growth path and that in the early 1990s, even in face of the highest unemployment rate in the EU, wages continued growing rapidly, being a

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1/   See section 4.b below.

driving force behind inflation. 1/ While the objective of this section is not a detailed analysis of the labor market, 2/ it is interesting to examine the features of the market that might help explain the persistence of the rise in nominal wages.

(1) Degree of bargaining centralization

The great majority of Spanish workers have their pay and conditions determined by collectively negotiated agreements. Official statistics place the share of employees covered by collective agreements at 83.1 percent in 1991, 3/ despite the low level of union affiliation (around 10 percent). This is because collective agreements apply to all employees in a sector--even those not represented by unions--and the terms of industry-wide agreements have constituted binding floors for all firms in the sector. 4/

Bargaining is conducted at various levels: firm, industry, region and nationwide, though predominantly at the regional (provincial) level. This structure entails the existence of a large number of agreements and can be characterized as an intermediary degree of centralization. Studies have shown such bargaining to be more conducive to high wage growth than either centralized or decentralized systems. This is because a highly centralized system generates better coordination and allows unions to take into account the inflationary impact of wage increases, reducing their wage claims. In the other extreme where bargaining mainly takes place at the firm level, excessive wage demands might lead the firm to a delicate financial situation, threatening its level of employment. Awareness of this risk leads unions to relatively lower wage growth rates. In the intermediary position, unions do not have incentives to internalize the economy-wide impacts of wage increases on inflation and on employment, nor do they take into account the particular circumstances of specific firms. 5/ Coricelli (1990) provides evidence that centralization during the period of broad [incomes policies helped the disinflation process up to 1987, suggesting that

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1/ A recent econometric investigation of the interaction between wages and prices in the Spanish economy, using a multivariate VAR approach, shows that wages are the fundamental explanatory component of prices, but that the opposite is not true. In particular, nominal wages in the private sector behave as an exogenous variable, determining the time profile of price increases in both the industrial and the services sectors (see, Alvarez et al, 1993).

2/ For an extensive analysis of Spain's labor market and unemployment see Franks (1994).

3/ Estimates by Jimeno and Toharia (1993) suggest a figure close to 75 percent, the difference arising mainly from possible double counting across different bargaining levels.

4/ This last aspect was recently changed. See Chapter II for details.

5/ Calmfors and Driffil (1988).

lower centralization since then might be considered a structural change. Jimeno (1992) provides empirical evidence on the high wage proclivity of the intermediate system that prevails in Spain.

(2)   **The impact of temporary contracts**

The second important feature of the market is its segmentation between workers with temporary and permanent contracts. Temporary contracts were introduced in late 1984 as a way of reducing the rigidities that derived the high severance pay associated with permanent contracts. Up to 1993, these contracts could be used for any activity (temporary or not) and could be signed for short periods and could be renewed for up to three years, 1/ and bear low dismissal costs. Since their introduction they have been used to such an extent that presently more than 30 percent of all employees hold a temporary job.

The introduction of temporary contracts had pervasive wage effects. Bentolila and Dolado (1994) note that up to the mid- to late 1980s, wage drift, i.e., the difference between the rate of growth of wage rates agreed in collective agreements and actual average earnings growth, used to be about 2 percentage points, but that after 1987 it was abnormally low, even negative, rising again since 1990. In the latter period, however, bargained real wages started to rise, in spite of the recession. The authors reconcile these two trends by building an argument that extends the insider-outsider view of the wage bargaining process, by identifying insiders with workers holding permanent contracts and outsiders with those holding temporary contracts. They argue that since workers on temporary contracts receive lower wages than those on permanent contracts, 2/ as the proportion of temporary workers in total employment increased, average wages increased by less than usual, reducing wage drift, explaining the first empirical regularity. However, as the proportion of temporary workers on total employment stabilized, the bargaining behavior of the permanent workers changed. This is because temporary workers are cheaper to dismiss and are, therefore, the first to be fired when labor shedding is needed. The fact that temporary employees will bear the negative employment consequences of high wage demands, leads insiders to bargain for higher wages than they would otherwise, driving wage settlements upward as the proportion of outsiders in total employment increases. This could help explain part of the wage increase in the early 1990s. The authors test their model by running wage equations that include, in addition to the standard variables, the proportion of temporary workers in the firm. They *find that this variable exerts a strong upward pressure on wages, concluding* that a large part of the rise in the wages of permanent workers in the late 1980s and early 1990s is due to the increase in temporary employment.

1/   Four and a half years since 1994, but no longer freely available. For details see Chapter II.

2/   See Jimeno and Toharia (1993) who estimate the wage premium to be between 8 percent and 11 percent.

(3) Indexation clauses

Expected inflation is the main cause of agreed wage increases in the annual collective agreements, with productivity clauses playing a very limited role. 1/ While formal indexation clauses are not imposed by law, a recent study of collective agreements in the Autonomous Community of Madrid for the period 1991-1992 shows that the tendency is to relate wage increases to inflation. Indeed, some 53 percent of the agreements pacted for the whole Autonomous Region of Madrid explicitly related wage increases to inflation, with around 36 percent of the total linking wages to past inflation. Of the sectoral agreements that explicit inflation clauses (around 52 percent of the total), 56.3 percent are backward looking, in that they ask for compensation for lost purchasing power, and the remainder are forward looking. It is estimated that around 30 percent of all sectoral agreements are indexed to past inflation. Finally, for agreements reached at the firm level, around 40 percent of the agreements are explicitly related to inflation, with 9 percent based on past inflation and the reminder on projected inflation. In the agreements at the firm level, however, it is common to find specific numerical targets for wage increases, without explicit mention of inflation.

5. Explaining the inflation differential between services and industry

What explains the differential between inflation in the manufacturing and in the services sectors? The so-called dependent economy model offers some guidance in the identification of the causes of this phenomenon. 2/ According to the model the differential in inflation in the nontradables (services) and tradables (industrial) sectors is determined by two main groups of factors: aggregate and sectoral demand changes and relative productivity gains in the tradables and nontradable sectors.

a. Aggregate and sectoral demand shifts

An overall increase in demand that creates inflationary tensions would tend to increase the inflation differential because the prices of tradable goods are constrained by foreign competition while those of the nontradables are not. It has also been suggested that the demand for services tends to have a large income elasticity, growing faster than aggregate demand and output. Moreover, factors which tend to change the composition of aggregate demand from traded to nontraded goods would tend to lead to an increased differential. Two important cases are those of capital inflows and government spending. Capital inflows generally increase the relative price

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1/ Jimeno y Toharia (1992), Drapper (1993).

2/ The dependent economy model analyses the determinants of the ratio of price of nontradables (PN) and the prices of tradables (PT), i.e., it investigates the determinants of the real exchange rate. See, for example, Dornbusch 1980. By looking at the question in terms of rates of change, we can apply the framework to study the differentials in inflation in the two sectors.

on nontradables by increasing demand, although the effect depends on the use the capital is put to. Government spending tends to be heavily concentrated in nontraded goods and, thus, tends to increase the inflation differential. 1/

    b. Sectoral differences in cost and productivity growth

Services tend to be labor-intensive productive activities, thus having a higher participation of wages in value added than industry. This, in conjunction with the fact that less international competition makes it easier to translate wage increases into prices in the services sector, contributes to make inflation in the services sector more responsive to wage inflation, than that in the industrial sector. A factor that limits the impact of cost increases on prices is productivity growth. It is often argued that productivity growth is inherently faster in the production of manufacturing goods than in that of services, because the degree of factor-substitutability is lower in the services sector, where labor is difficult to replace, and because the exposure to trade flows facilitates the absorption of more modern technology in the industrial sector. A faster pace of productivity growth in the industrial sector may also tend to reduce its inflation rate relative to that of services.

What is the relative significance of each of these determinants in the Spanish case, particularly since the mid-1980s when the inflation differential started to widen again?

As discussed in section 3, domestic demand was particularly strong in the late 1980s, generating a strong increase in the demand for services by households and by enterprises. It seems to be the case that the inflation differential is positively correlated with aggregate demand pressures (Chart 5). When, as between 1986 and 1990, aggregate demand grows at fast rates, the differential widens, when aggregate demand decelerates, the inflation differential also falls, although with a certain lag. In terms of sectoral demand shifts, the main source of demand increase in the 1980s was fixed investment, partially through foreign direct investment, although both private and government consumption also grew very fast. While it is true that government consumption in Spain has increased its share of GDP substantially since the late 1970s, most of this increase occurred before 1986.

Is it possible to explain sectoral inflation differential by divergences in wage behavior and labor costs? Table 5 summarizes sectoral developments in wages and unit labor costs during the period in study. The evolution of wages was quite similar in the industry and construction sectors, with wages growth rates decelerating until 1988 or 1989, bouncing back significantly in 1990 and 1991, and showing some moderation again in 1992 and 1993. In the service sector, on the other hand, wage increases started to accelerate in 1987, slowing after 1991. More broadly, throughout the period from 1980 to 1993 wage increases have not been significantly different among sectors.

1/ Froot and Rogoff (1991).

Chart III-5
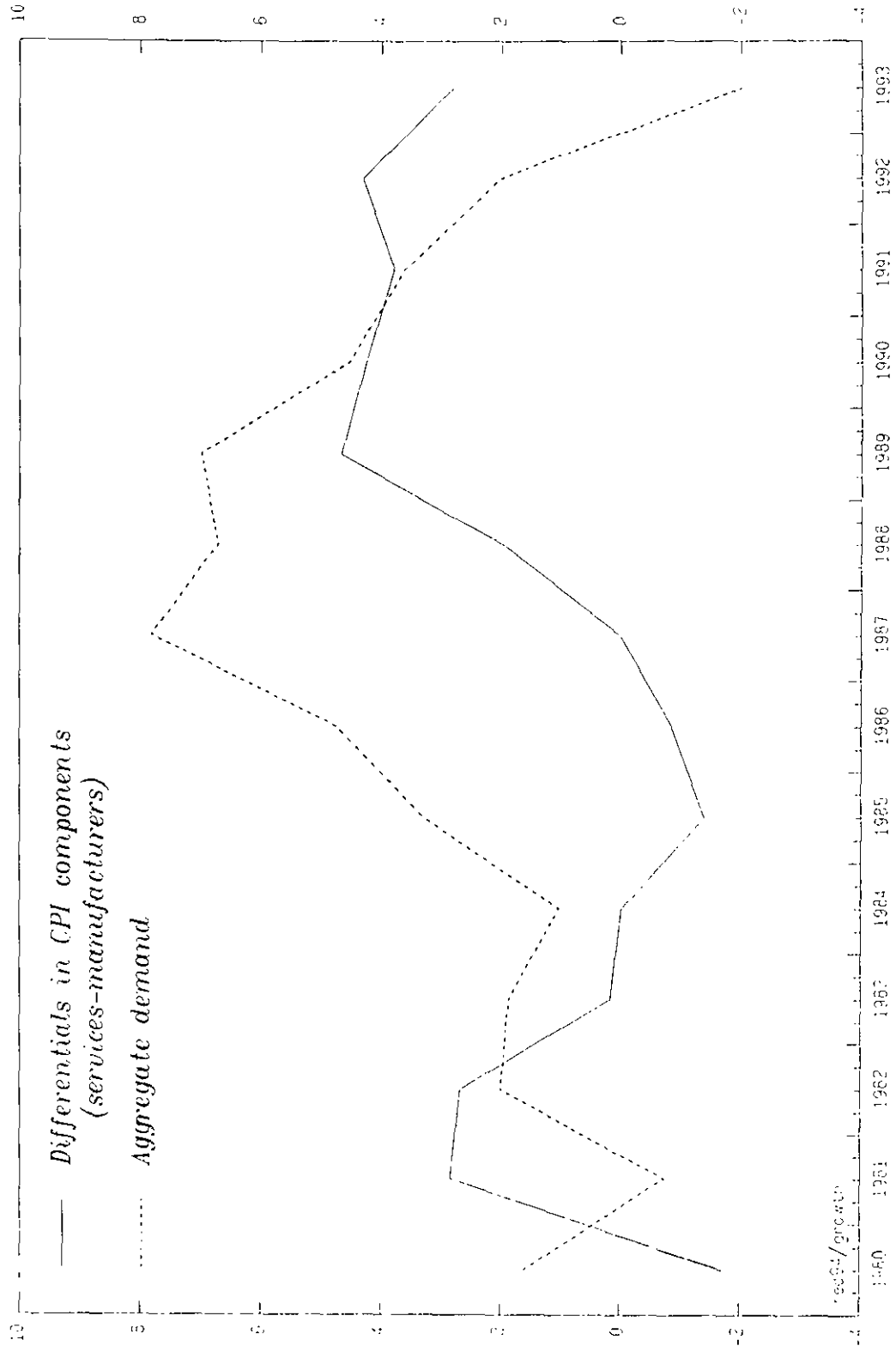
SPAIN

Inflation Differentials and Aggregate Demand Growth

—— *Differentials in CPI components (services-manufacturers)*

········ *Aggregate demand*

Table 5. Spain: Sectoral Labor Cost Developments

(Annual average percentage change)

	1981-85	1986	1987	1988	1989	1990	1991	1992	1993
Industry 1/									
Wages	11.0	12.0	7.7	5.8	4.7	8.4	8.9	8.0	6.5
Productivity	4.3	3.1	2.2	3.0	0.3	-1.1	3.3	2.0	7.7
Unit labor costs	6.4	8.6	5.4	2.7	4.4	9.6	5.4	5.9	-1.1
Construction									
Wages	9.1	11.0	4.9	3.5	5.6	10.5	8.8	7.1	6.7
Productivity	5.5	-1.3	-1.5	0.6	2.1	2.3	-0.7	1.8	3.6
Unit labor costs	3.4	12.3	6.5	2.9	3.4	8.0	9.6	5.2	3.0
Services									
Wages	10.5	10.6	6.4	7.0	7.7	8.5	6.7	7.0	6.1
Productivity	1.5	-2.4	0.3	0.8	-0.6	--	0.3	2.6	2.4
Unit labor costs	8.9	13.3	6.1	6.2	8.4	8.5	6.4	4.3	3.6

Sources: INE and Fund staff calculations.

1/ Without construction.

Unit labor costs show a much greater dispersion, since productivity growth was higher in the industrial sector. Large productivity gains in the first half of the 1980s contained unit labor costs in industry. After accession to the EC, however, the rate of growth of productivity growth has moderated, reaching negative levels in 1990. In the recession years of the early 1990s, productivity again increased more rapidly due to labor shedding. In the construction and service sectors, productivity gains were subdued or negative throughout the period.

It is, therefore, apparent that in spite of the relatively homogeneous behavior of wages, discrepancies in relative productivity make labor costs an important explanation for the differential behavior of inflation. Indeed, for the services sector to pay similar wages while productivity grows more slowly than in industry, its prices must rise faster. This is made possible by the fact that the services sector has a greater ease in translating cost increases into final prices, due to the protection it enjoys from competition. This protection is of two types. First, because services are in general non-tradables, they are inherently sheltered from international competition. Second, the sector is also protected at the national level by a multitude of regulations and barriers to entry that limit competition. These structural features of the market for services lead to more inertia in their inflationary process, particularly at times of disinflation.

6.   Conclusions

Several conclusions can be drawn from this review of Spain's disinflation process. The significant progress obtained in the mid-1980s was due to a combination of a tightening of financial policies, magnified by an incomes

policy that greatly reduced the incidence of backward-looking indexation. While incomes policy probably reduced the cost of the disinflation, the process was not without sacrifices.

The nonaccommodating exchange rate policy followed by the Bank of Spain after the accession to the ERM was intended to lock in the disinflation gains made in the preceding years, and as a mechanism to foster nominal convergence, by attaining the discipline and credibility viewed as necessary to bring agents' expectations in line with inflation in the core of the EMS. The concurrent relaxation of fiscal policy and the acceleration of wage settlements, however, highlight the limits of the policy. In fact, the effects of discipline and anti-inflationary reputation, which can be enhanced by the adoption of a pegged or quasi-fixed exchange rate system, can only occur if exchange rate stability is perceived by economic agents as sustainable in the medium run, and this, in turn, is only possible if economic fundamentals are compatible with convergence toward the prevailing inflation rate in the main trading partner economies.

In this sense the experience of Spain shows that a commitment to exchange rate stability does not, by itself, provide a mechanism of sufficient discipline. By directly affecting only the tradables sector of the economy, it is likely to be costly in terms of output and employment. This is particularly important in the case of Spain, in view of the rigidities that characterize the nontradables sector and the labor market. Indeed, inflation expectations of wage earners have apparently remained high and wage demands have proved to be relatively insensitive to the unemployment rate. Moreover, once economic agents are aware of the restrictions under which monetary policy operates in a system of fixed exchange rates, its impact on price expectations is conditioned by the action of the other instruments of economic policy, particularly the budget.

While restrictive monetary policy remains an important instrument to foster convergence, particularly while fiscal policy is relatively unambitious, it cannot be the only instrument. If convergence is to be achieved within the time frame set forth in the authorities' revised Convergence Plan, other policies will have to act consistently. In particular, while fiscal consolidation is at present an objective in itself, fiscal restraint is greatly needed to support the disinflation process, particularly in the present circumstances where inflation expectations appear to be extremely persistent.

Moreover, wages have to be more responsive to the conditions in the labor market. In this respect it is particularly important to reform the system of collective bargaining by reducing the number of levels involved and to push forward with reforms that aim at reducing firing costs. By reducing the protection extended to "insiders" it should be possible to increase the responsiveness of wages to economic conditions. Similarly, there is a continuing need for structural policies, to enhance competition and productivity growth, particularly in the services sector, which is characterized by excessive market power and pervasive regulations.

A Model of Inflation Persistence

1. Introduction

In this annex a model of inflation in an open economy that produces tradables and nontradable goods is presented, which attempts to incorporate some stylized facts of the Spanish inflationary process. 1/ The model illustrates the fact that if exchange rate management is such that inflation differentials vis-à-vis trade partners is accommodated by nominal exchange rate depreciation, the inflationary process will tend to be more persistent. This is so because agents are aware of the policy rules and, thus, understand that when policies are accommodating they can be less concerned about the unemployment consequences of wage increases. As a result wages and prices will adjust sluggishly to shocks. The same outcome obtains if an anti-inflationary package is not credible and the Government is expected to renege in its preannounced commitments. A corollary is that inflation will tend to be less persistent under credible fixed exchange rate regimes than under a managed floating regime. The model shows, however, that if the labor market is characterized by indexation or by other inertia-generating institutional features, inflation will display some persistence even in the case in which the authorities choose not to follow accommodative monetary and exchange rate policies. The model also incorporates the possibility that the inflationary process be influenced by the different rates of productivity growth in the tradables and nontradables sector.

2. A model of inflation persistence

Consider an economy that produces two types of goods: tradables and nontradables. Tradable prices are assumed to be linked to international prices while nontradable prices are determined by domestic conditions. The model is given in the following equations:

$$\Pi_t = \alpha \Pi_t^T + (1-\alpha) \Pi_t^{NT} \tag{1}$$

$$\Pi_t^T = E_{t-1}(\Pi_t^* + e_t) \tag{2}$$

$$\Pi_t^{NT} = w_t^{NT} - a_t^{NT} \tag{3}$$

$$w_t^{NT} = w_t^T = w_t = a_t + \delta\,(Y_t - Y_t^F) + \Sigma_{k-1}^k \gamma_k \Pi_{t-k} + \sigma \Pi_t^e \tag{4}$$

$$Y_t - Y_{t-1} = \psi\,(m_t - \pi_t) + \beta\,(e_t - \pi_t + \pi_t^*) + \omega_t \tag{5}$$

1/ The model is akin to Alogoskoufis (1990), but distinguishes between tradable and nontradable sectors and has a different formulation of wage dynamics. Edwards (1992) presents a similar formulation.

Equation (1) states that the domestic rate of inflation is a weighted average of tradables and nontradables inflation, as denoted by the superscripts τ and ητ, respectively. Equation (2) states that the law of one price holds ex-ante and that the change in the domestic price of tradables is equal to the expected rate of change in the exchange rate plus the expected rate of world inflation. We assume firms in the nontradables sector are monopolistic competitive price setters and, thus, in equation (3) nontradable prices are determined by a markup over unit-labor costs. In this formulation, the rate of inflation in nontradables equals the rate of change in wages in the sector (w^{NT}), net of productivity increases (a^{NT}). Equation (4) describes the determination of nominal wages in the nontradables sector. A "spillover effect" is assumed, by which nominal wage growth is the same in the two sectors, and is based on average productivity growth (a) 1/ and on the assumption that nominal wage growth responds positively to demand pressures, as measured by the deviations of the log of domestic output (Y) from the log of its potential level (Y^P). In addition, wage growth is assumed to depend on lagged inflation π_{t-1} up to k periods, and on the expected rate of inflation $\pi_t^{\bullet}$. The parameter γ_k in the equation measures the degree of indexation in the economy. Finally, Equation (5) is a specification of aggregate demand growth as a function of the rate of growth of the real money supply $(m-\pi)_t$ and of real exchange rate depreciation, $(e_t - \pi_t + \pi_t^{\bullet})$, ω_t is a real product demand shock, such as a change in fiscal policy and the parameters ψ and β are positive.

The model is completed by two equations representing the policy rules followed by the authorities. In equation (6) the authorities adjust the nominal exchange rate so as to accommodate the differential between domestic and foreign inflation in the previous period, according to the coefficient ϕ. In equation (7) the authorities set the money supply so as to compensate for previous period inflation, where θ is the accommodation coefficient. Alternative exchange regimes can be characterized by different values of the accommodation parameter ϕ. A fixed exchange rate system corresponds to $\phi=0$, whereas a PPP rule for exchange rates to $\phi=1$. A managed floating system corresponds to a $0<\phi<1$. 2/

$$e_t = \phi(\pi_{t-1} - \pi_{t-1}^{\bullet}) \tag{6}$$

$$m_t = \theta\pi_{t-1} + \epsilon_t \tag{7}$$

The model can be solved in order to find an expression for the dynamics of inflation. In order to simplify the discussion we assume initially that

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1/ This assumption is common in the so-called Scandinavian models of inflation, where it is justified on the basis of either national negotiations or as a result of a "solidarity principle" in the wage policies of labor unions.

2/ Note that in a fixed exchange rate system the exchange and monetary reaction functions are not independent, unless international reserve flows are completely sterilized.

wages are adjusted according to inflation in the last period only (k=1) and that the wage adjustment rule is a strict weighted average of past inflation and expected inflation, i.e., $\sigma = 1-\gamma$. Moreover, under rational expectations, we can write $E_t(\pi_t) = \pi_t$ and we can rewrite (4) as:

$$w_t^{NT} = a + \delta (Y_t - Y_t^F) + \gamma \pi_{t-1} + (1-\gamma) \pi_t \qquad (4')$$

Assuming, in addition, that $E_{t-1}(\pi_t^*) = \pi_{t-1}^*$ we can write, after some algebra:

$$\pi_t = \xi_1 \pi_{t-1} + \xi_2 \pi_{t-1}^* + \xi_3 (Y_{t-1} - Y_t^F) + \xi_4 (a - a^{NT}) + v_t \qquad (8)$$

where

$$\xi_1 = \frac{[\frac{\alpha}{(1-\alpha)}] \omega + \gamma + \delta (\psi\theta + \beta\phi)]}{[\frac{\alpha}{(1-\alpha)}] + \gamma + \delta (\psi + \beta)]} \quad ; \quad \xi_2 = \frac{(1-\omega) [\frac{\alpha}{(1-\alpha)} + \delta\beta]}{[\frac{\alpha}{(1-\alpha)}] + \gamma + \delta (\psi + \beta)]}$$

$$\xi_3 = -\frac{1}{[\frac{\alpha}{(1-\alpha)}] + \gamma + \delta (\psi + \beta)} \quad ; \quad \xi_4 = \frac{1}{[\frac{\alpha}{(1-\alpha)}] + \gamma + \delta (\psi + \beta)}$$

The coefficient ξ_1 provides a measure of the degree of inflation persistence. If $\xi_1=0$, then last period's inflation has no autonomous impact on the present inflation rate. As ξ_1 approaches 1, the degree of persistence increases. A coefficient $\xi_1=1$ means that, unless the other determinants of inflation operate to offset it, inflation this period will reproduce last period's rate. An analysis of the coefficients ξ_i reveals that they are made up of combinations of the policy parameters ϕ, θ and γ, of the elasticities β and ψ, as well as of the share of tradable goods α. Clearly, for a given set of "structural" parameters β, ψ and α, changes in the policy parameters ϕ, θ and γ will change the coefficients ξ_i in equation (8).

Suppose, for example, that the authorities follow a policy of full accommodation such that $\phi = \theta = 1$. In this case $\xi_1=1$ and there is full persistence, irrespective of the degree of wage indexation. 1/ In this case, inflation in the current period will be at least equal to inflation in the previous period except for any combination of the following:

(1) Productivity in the nontradables sector is growing faster than in the tradables sector;

(2) World inflation has decreased from the last to the present period;

1/ In this type of system, however, the economy typically learns how to live with relative high inflation, and indexation tends to become generalized.

(3) There is slack in the economy ($Y_t^F > Y_{t-1}$);

(4) The economy experiences a positive supply shock.

If, on the other hand, the authorities follow a nonaccommodative policy stance, such that $\phi = \theta = 0$, then ξ_1 becomes:

$$\xi_1 = \frac{\gamma}{[\frac{\alpha}{1-\alpha}] + \gamma + \delta(\psi + \beta)}$$

and the degree of persistence becomes a function of the structural parameters β, Ψ and α and of the degree of indexation. If there is no indexation of wages, i.e., $\gamma=0$, ξ_1 is also equal to zero and the inflationary process does not display persistence. Instead it becomes a function of current world *inflation, and of the growth rates of potential output and of relative* productivity. As the share of tradables in total production increases, ($\alpha\to1$), domestic inflation tends to collapse to world inflation.

If there is full indexation, i.e., if $\gamma=1$, then:

$$\xi_1 = \frac{1}{[\frac{1}{1-\alpha}] + \delta(\psi + \beta)}$$

and the degree of persistence will depend on how open the economy is, i.e., on the share of tradables (α), on the responsiveness of nominal wages to the output gap in the nontradables sector (δ) and on the parameters of the aggregate demand function. Suppose, for illustration purposes, that the economy produces only nontradables ($\alpha=0$). In this case:

$$\xi_1 = \frac{1}{1 + \delta(\psi + \beta)}$$

and the degree of persistence will depend on how responsive nominal wages are to the output gap. If responsiveness is limited (i.e., as $\delta\to0$) persistence will increase ($\xi_1\to1$). It can also be easily shown that the degree of persistence falls as the share of tradable goods increases and that, for a given degree of indexation, the greater the responsiveness of aggregate demand to changes in the policy variables, i.e., to a reduction in the real money supply or in the rate of exchange depreciation, the smaller the degree of persistence will be.

3.   Econometric investigation and results

The model presented in the previous section suggests that if the adoption of an exchange rate commitment, such as the one that characterizes the ERM, is credible, price setting behavior and wage contracts will reflect the fall in

inflationary expectations in the economy, generating a change in regime that will be reflected in a structural break in the dynamics of inflation described by equation 8. In our particular case, this structural break should take place either at the time Spain joined the ERM or at the moment it became clear that the exchange rate policy had changed, although this will be tested for. 1/ Thereafter, the coefficient of lagged inflation in equation 8 should decline, reflecting the fall in the degree of inflation persistence in the economy. This result, however, depends on two basic conditions: first, that the fundamentals are consistent with a non-inflationary path and, second, that the announcement is credible in the sense that it reduces inflationary expectations and is reflected in newly set prices and contracts. If that is not the case, the degree of inflationary persistence will not be reduced and the coefficient $\beta 1$ in equation 9 below will not fall.

In order to investigate empirically the response of inflation persistence to Spain's joining the ERM, we initially estimate equations of the following type using quarterly data:

$$\pi_t = \beta_1 \pi_{t-1} + \beta_2 \pi_{t-1}^* + \beta_3 (Y_{t-1} - Y_t^P) + \beta_4 (a - a^{NT}) + \upsilon_t \qquad (9)$$

Tests for parameter stability are then run in order to investigate if and when a structural break might have occurred. In addition to the usual Chow break point test for parameter stability, we run a one-step forecast F test in order to identify a structural break in the regression and run a recursive coefficient estimation, which allows us to trace the evolution of the coefficients as more and more of the sample data are used in the estimation. When applied to the coefficient $\beta 1$ this test provides a picture of way persistence evolved over time.

Equation (9) was estimated using OLS, with an heteroskedasticity consistent covariance matrix. The resulting regression is: 2/ 3/

1/ Spain officially joined the ERM on June, 1989. The peseta, however, had been shadowing the system for quite some time.

2/ The figures in parentheses are t statistics. Given that many economic time series are non-stationary, standard and augmented Dickey-Fuller tests were conducted to test for the orders of integration of the series. Since all series were found to be of the same order of integration, a Dickey-Fuller test on the residuals of equation (9) was run to test for cointegration. The unit-root τ_μ statistic of -6.11 obtained on this stationarity allows us to reject the null hypothesis of nonstationarity, which indicates that the variables do, indeed, cointegrate, confirming the existence of a long run relationship between the variables.

3/ Similar results were obtained when capacity utilization was used as the proxy for demand pressures.

$$\pi_t = \frac{0.001}{(0.356)} + \frac{0.847}{(19.691)} \pi_{t-1} + \frac{0.607}{(2.746)} \pi^*_{t-1} + \frac{0.043}{(0.681)} (Y_{t-1} - Y^r_t) - \frac{0.037}{(-0.333)} (a - a^{NT}) \quad (10)$$

Adjusted $R^2 = 0.968$; S.E. of Regression $= 0.007$; F$=477.99$

As an initial investigation about the stability of the estimated parameters, we looked at the plot of each estimated coefficient against time. Such plot is obtained by estimating the model over ever increasing sub-samples, until the estimating period is the complete sample, and for each regression plotting the value of the coefficient against the latest period in the sample used for the estimation of that regression. Chart 6 shows the plots obtained for the coefficients. It suggests that the coefficient is not stable over time, increasing significantly after 1986, and stabilizing after 1988. 1/

As further way of investigating this issue a one-step forecast F test was run. At each recursion in the previous exercise, an OLS residual for the one-step ahead forecast was calculated. If the coefficients are constant over the whole estimating period they should all be of the same order of magnitude. If there is a structural break, however, when we reach the observation that precedes it in the recursive estimation, the one-step ahead forecast is likely to appear abnormal when compared with the other residuals. We can plot such residuals against time and check for abnormal behavior. This is done in Chart 7 which also includes error bands of +/- two standard errors around zero. Values of one-step residuals which lie outside these bands are indicative of exceptional values, which suggest a structural break. Such is the case of the observations dated 1984.3 and 1986.4. On the other hand, a CUSUM test based on the plot of the sum of the recursive residuals (Chart 7) suggests parameter stability. Therefore, Chow stability tests were run for these periods. While the Chow F statistics obtained for 1984.3 (0.92) clearly suggests that we can not reject the null hypothesis of coefficient stability, the result for 1986.4 (2.46) suggests a break at the 10 percent confidence level. More importantly, tests for the quarters around the time Spain joined the ERM, show no evidence of a structural break.

Next, an equation of the form was estimated:

$$\pi_t = \beta_1 \pi_{t-1} + \beta_2 \pi^*_{t-1} + \beta_3 (Y_{t-1} - Y^r_t) + \beta_4 (a - a^{NT}) + \beta_5 (D . \pi_{t-1}) + \nu_t \quad (11)$$

Adjusted $R^2 = 0.967$; S.E. of Regression $= 0.007$; F$=377.80$

where the variable D is a dummy variable that takes the value of one for the period after the hypothesized structural break (1988.Q3) and zero otherwise. If joining the ERM is effective and credible, the estimated coefficient of $\beta5$ should be significantly _negative_, indicating that the policy successfully

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1/ The peak obtained in 1986 is presumably reflecting the introduction of the VAT, a supposition that is consistent with the subsequent fall of the coefficient.

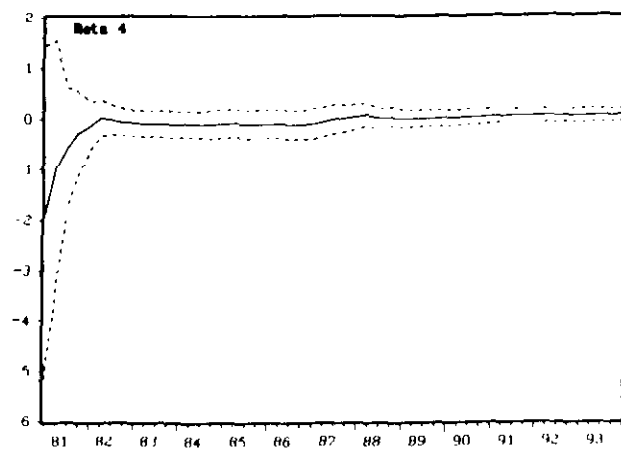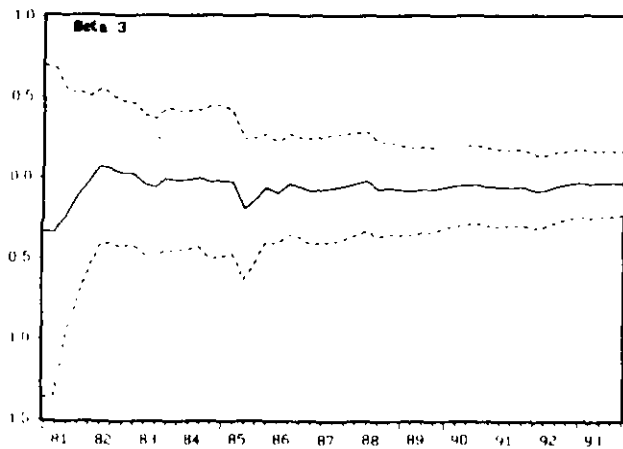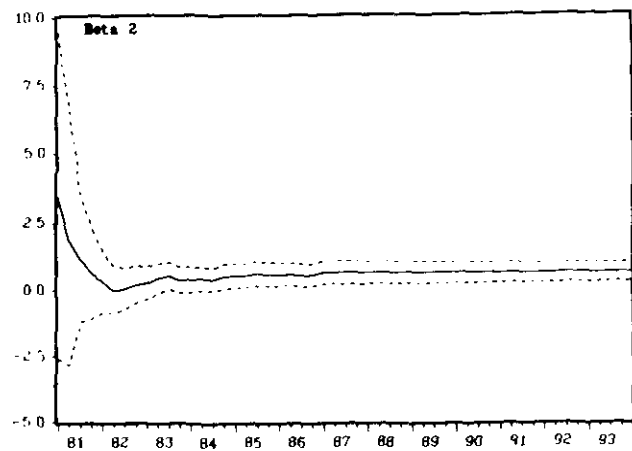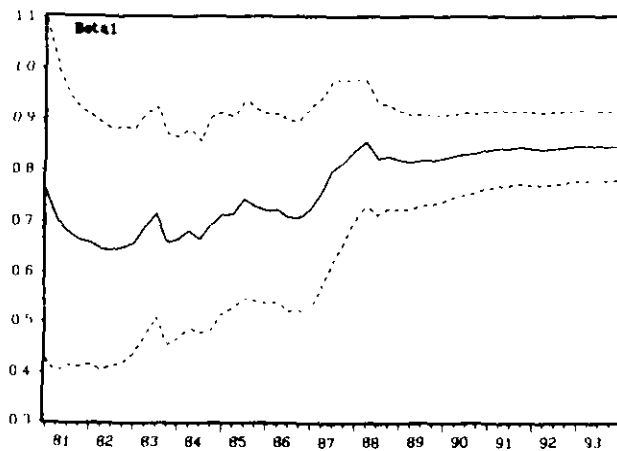Chart III-6:   Recursive Coefficient Estimates and Two Standard Deviation Bands
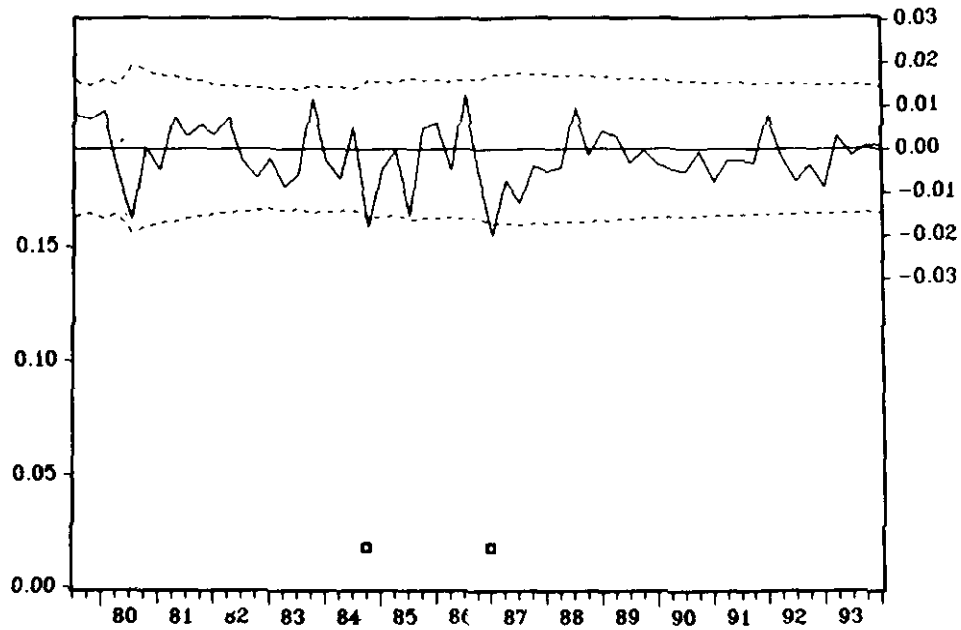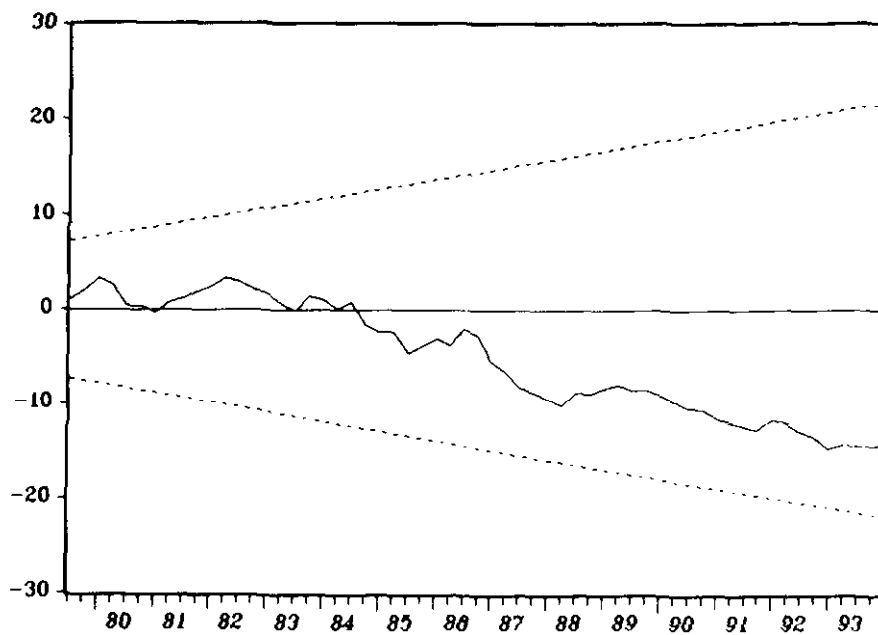
Chart III-7:   Recursive Least Squares Tests

One-Step-Ahead Forecast F Test on Equation (10)

CUSUM Test on Equation (10)

reduced the degree of inertia in the system. In the limiting case of immediately and totally adjusting expectations and prices, $\beta 5$ would totally offset $\beta 1$, i.e., $(\beta 1 - -\beta 5)$, and persistence would vanish.

The following equation obtained:

$$\pi_t = \frac{0.004}{(0.547)} + \frac{0.828}{(14.881)}\pi_{t-1} + \frac{0.606}{(2.746)}\pi^*_{t-1} + \frac{0.013}{(0.178)}(Y_{t-1}-Y^r_t) - \frac{0.693}{(-0.532)}(a-a^{NT}) - \frac{0.035}{(-0.684)}D$$

(12)

Note that although the coefficient of D turns out to be negative, its absolute size is very small. While the t statistic suggests that one cannot reject the hypothesis that it is equal to zero, it should be looked at with caution given the non-stationary character of the series. Indeed, a unit-root test on the residuals of equation (12) suggests that it is a cointegrating relationship.

There is little evidence of a downward shift in inflation persistence and a change in labor and product market behavior under the ERM. It seems, therefore, that Spain's commitment to a fixed exchange rate system under the system's rules was not sufficient to lower inflation expectations and thus reduce persistence. It is conceivable that in view of the structure of Spain's labor market and given the worsening of the fiscal stance, agents did not perceive the exchange commitment as part of a sufficiently credible policy package, and thus did not change their behavior.

Data Definitions

The data for this study are taken from the Bank of Spain tapes, and runs from 1978.1 to 1994.1. Rates of inflation are measured as the log difference between the consumer price index and its fourth lag. The rate of world inflation is that for the OECD. The demand pressure variable is built by deducting potential output from actual output. Potential output is calculated using a production function approach on annual data, and then linearly interpolating the series to derive the quarterly data. Relative productivity growth is the log difference of the ratio of productivity (defined as value-added divided by employment) in the total economy and in the nontradables sector, where the later is defined to be the services sector plus construction.

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IV. The Medium-Term Fiscal Outlook 1/

1. Introduction

In July 1994, the Spanish authorities announced a new convergence plan establishing medium-term economic objectives consistent with meeting the nominal convergence targets set in the EU's Maastricht Treaty. These included the achievement by 1997 of a general government deficit of 3 percent of GDP and an annual inflation of 3.5 percent. 2/ To achieve these targets, the plan relies primarily on the effects of structural reforms on economic activity and government revenue, and on control of fiscal expenditure. Economic growth is projected to reach 3.9 percent a year in 1996-97, while expenditure (at constant prices) would grow on average by 1.6 percent. Meanwhile, strong economic activity and improved tax collection would permit revenues to expand by more than 5 percent a year in real terms. The staff analysis suggests, however, that these desirable developments would be difficult to achieve on the basis of the fiscal measures and structural reforms announced to date. In particular, the baseline projections presented below highlight that, were short-term interest rates to increase to the levels that are suggested by the current yield curve (and that could likely be necessary to attain the inflation target without further structural reforms of goods and labor markets and an early fiscal adjustment), the chances of curbing the deficit and public debt to the extent envisaged in the convergence plan and achieving strong economic growth would be remote. An alternative scenario illustrates what could be the path of the economy if further structural reforms and fiscal measures are implemented soon.

This chapter is organized as follows. Section 2 provides an overview of the convergence plan and of recent fiscal measures taken by the authorities. The baseline staff projections and corresponding analysis are presented in section 3. Section 4 discusses an alternative staff scenario, reflecting an illustrative set of fiscal measures and the full implementation of structural reforms. Section 5 summarizes the main points of the study.

2. Main aspects of the new convergence plan and the 1995 budget

Spain's original convergence plan, announced in May 1992, became outdated as a result of the economic slowdown experienced by Spain and most European countries in 1993. 3/ The 1994 convergence plan takes into consideration the setback caused by the recession and sets 1997 targets consistent with the minimum required to fulfill the Maastricht criteria, with most of the adjustment taking place after 1995. The plan projects the

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1/ Prepared by J. Levy.
2/ The Bank of Spain later announced an inflation target for 1997 of no more than 3.0 percent.
3/ The main features of the 1992 convergence plan are presented in SM/92/145 (7/24/92).

general government fiscal deficit falling from 6.7 percent of GDP in 1994 to 5.9 percent in 1995, 4.4 percent in 1996 and 3.0 percent in 1997 (Table 1). 1/ The plan assumes that GDP will grow at a rate of 2.8 percent in 1995 and 3.9 percent a year in 1996-97, supported by low interest rates and wage moderation (Table 2). The plan suggests that this moderation will translate into falling inflation rates and thus help to maintain Spain's external competitiveness. In conjunction with greater flexibility in the labor and goods markets, it will also promote an expansion of employment, which is projected to grow in the range of 1.5-1.9 percent in 1995 and of 2.6-3.3 percent in 1996-97.

Table 1. Convergence Plan, Fiscal Indicators, 1994-97

(In percent of GDP)

	1994	1995	1996	1997
General government overall deficit	6.7	5.9	4.4	3.0
I. Central administrations	5.7	5.1	3.8	2.7
State	5.0	4.6	3.5	2.5
Social security and admin. autonomous agencies	0.7	0.5	0.3	0.2
II. Territorial governments	1.0	0.8	0.6	0.3
Net public debt	60.7	63.9	65.5	65.2
Gross public debt	62.7	65.9	67.5	67.2
Central administration revenues and expenditure				
Memorandum items:				
General government primary deficit	1.1	0.5	-1.0	-2.3
Interest payments	5.6	5.4	5.4	5.3

Source: Convergence plan.

1/ The original plan projected a deficit of 1 percent of GDP for 1996.

Table 2. Convergence Plan, Summary of Macroeconomic Indicators

(<u>In percent changes</u>)

	1994 <u>1/</u>	1995	1996-1997
GDP at constant prices	1.3	2.8	3.9
External balance (contribution to GDP growth)	1.2	0.2	-0.6
Private consumption deflator	4.2	3.8	3.5
Employment	-0.7	1.5-1.9	2.7-3.3 <u>1/</u>

Source: Convergence plan.

<u>1/</u> Depending on the final impact of labor reform on employment.

The plan comprises a set of proposals for structural reforms, general principles for expenditure moderation and projections of fiscal revenues (Table 3). Those measures are only outlined in the plan; some have been the subject of specific legislation or were incorporated in the 1995 budget, but others were neither detailed, nor given a schedule to be implemented. Structural reforms are aimed at complementing those already adopted subsequent to the 1992 convergence plan, such as modification of unemployment benefits, the creation of private employment agencies, and the announcement of a calendar for the liberalization of telecommunications. The expenditure measures outlined include savings through better allocation

of public resources; a wage agreement with public servants' unions; 1/ the
agreement with territorial authorities covering the financing of public
health care; and the enforcement of previous measures in the area of social
security and unemployment benefits. 2/ Among the fiscal goals, the
increase in fiscal revenues is expected to be achieved not by higher nominal
tax rates, but by economic growth and improvements in tax collection. 3/

The convergence plan notes the importance of fiscal consolidation for
attaining low interest rates and the importance of the latter not only to
economic activity, but for decreasing the burden of servicing the public
debt. However, the path to financial consolidation embodied in the plan is
very gradual. The first year reduction in the primary structural deficit is
of only 0.2 percent of GDP, and no further consolidation measures, except
for unidentified cuts on expenditure have been announced.

1/ The main measures to curb expenditure are: (i) the filling of no more
than 50 percent of the vacancies in the public service; (ii) the reform of
procurement procedures; (iii) increased cost recovery of public services;
(iv) a reduction of employees in the central administrations (i.e., the
central government and the part of social security under its responsibility)
commensurate with the transfers of services to regional authorities; and (v)
the consolidation of public enterprises. The agreement with public service
unions for the 1995-97 period establishes wage increases in line with
targeted inflation, to be supplemented only if inflation exceeds the
official target by more than one percentage point, the fiscal and growth
targets are met, and certain other conditions hold. This agreement follows
two years of real wage reductions totaling 4.1 percent (in 1993-94) and
three previous years of real wage increases totaling 10.9 percent (in
1990-92); it has been extended to employees of territorial authorities and
includes the public health sector.
2/ The reforms pursued by the social security system since 1992 cover
measures in the health sector, such as a cap on the amount of medicines
prescribed per doctor and health center, an agreement with the
pharmaceutical industry reducing the margin on pharmaceutical products by
3 percent and transferring old-age patients from acute-care hospitals to
nursing homes. The 1995 budget law changed the eligibility criteria and the
period of entitlement to temporary disability pensions with immediate
savings. The agreement with regional governments limits the increase in
health-care expenditure to the rate of growth of GDP. Unemployment benefits
were changed in 1993, leading to a tightening of eligibility criteria and
the taxation of those benefits.
3/ The authorities expect revenues to grow faster than output in part
because of the "global progressivity" of the tax system, which implies that
even with tax brackets adjusted for inflation, economic growth will shift
taxpayers towards higher tax brackets.

Table 3. Central Administration Revenues and Expenditure

(In billion of pesetas)

	1995	1996	1997
Revenues	23,215	25,184	27,485
(percentage change at constant prices)	2.6	4.8	5.4
Expenditure	26,645	27,917	29,576
(percentage change at constant prices)	-1.1	1.2	2.4
Memorandum item:			
CPI index (percentage change)	3.8	3.5	3.5

Source: Convergence plan.

Although aiming at only a modest deficit reduction, the 1995 budget includes attempts to strengthen the fiscal strategy by establishing periodic monitoring of expenditure under the responsibility of the social security and ministries (in some cases monthly). The government has also announced that any slippage would be corrected as soon as it is identified. The willingness to meet the 1995 targets was recently illustrated by the swift announcement of additional (but unspecified) cuts in general expenditure as a response to higher interest payments, following the increase in the interest rates by the Bank of Spain in the first days of 1995.

3.   The baseline scenario

The baseline scenario attempts to assess the path of the economy taking into account the measures already enacted or announced. It includes projections of the main aggregates of the economy and the fiscal outcome, based on the assumptions presented below.

a. Assumptions and the macro scenario

On the fiscal side, the baseline scenario incorporates the measures in the 1995 budget and recent changes in social security benefits. 1/ The scenario also reflects the impact of the several forms of financial support provided by the Government to public enterprises, which are projected to total Ptas 1.2 trillion in 1995. 2/ The effects of several measures outlined in the convergence plan, however, were not incorporated because, for a variety of reasons, they are still very difficult to assess. For instance, authorities have not published a list of the areas in the public sector where vacancies will be only partially filled, and there is no agreement with the unions on the issue; specific cost recovery measures, e.g., user fees for medical services, were also not announced; and it is still very difficult to estimate the effects of the administrative measures that have been taken to improve tax collection. 3/ For the 1996-99 period, the scenario uses the standard assumption that, except where other

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1/ Among them, a once-for-all decrease in purchases of goods envisaged in the 1995 budget (e.g., the reduction of Ptas 0.09 trillion on pharmaceuticals); the expected reduction of unemployment benefits and temporary disability pensions, due to more stringent eligibility requirements, the mentioned partial forward indexation of public service wages, and the full indexation of pensions in the next three years.

2/ Public subsidies increased by 23 percent in 1993, seemingly for cyclical reasons, but were roughly stable in 1994 and are expected to remain so in 1995. Budgetary transfers to public enterprises amounted to Ptas 710 billion in 1994 and are scheduled to reach Ptas 772 billion in 1995. In 1995, the Government will become responsible for Ptas 90 billion of debts of the Public TV, Ptas 53 billion of debt of CSI steel company and Ptas 218 billion of the state-owned holding company INI. In addition, the Government will increase its participation in the capital of state enterprises by about Ptas 63 billion.

3/ Cross-checking information from outside sources was first allowed in the 1991 Income Tax Law. Last year, the Revenue Agency found irregularities in about 400,000 tax declarations and billed contributors for a total amount of Ptas 20 billion (0.03 percent of GDP). Several other proposals have been discussed, including the requirement of accounting firms to report their clients' balance sheet to the Revenue Agency, but definite measures are yet to be approved.

relevant information is available, general revenues grow in proportion to actual GDP, while expenditures rise in proportion to potential GDP. 1/

Interest payments are projected to account for an increasing share of GDP in coming years because of relatively high deficits and interest rates. Nominal interest rates are assumed to increase, consistent with the current shape of the yield curve. The steepness of the yield curve seems to be associated with concerns over the large fiscal deficit, 2/ doubts about the prospects for convergence and the expectation that monetary policy will need to bear most of the burden of containing inflation in the coming years (in the face of continuing labor and product market rigidities and the slow pace of fiscal consolidation).

Interest payments are projected to rise markedly in 1996. This reflects also portfolio operations undertaken by the Government in 1993-94 and contrasts with the assumption made in the convergence plan that interest payments would remain as a roughly constant proportion of GDP in 1995-97 (Table 1). When interest rates dropped in the second half of 1993, the Government took advantage of those low rates to borrow Ptas 2 trillion (3.3 percent of GDP) in excess of its financing requirements. The excess resources were deposited in the Bank of Spain. During 1994, the Government withdrew most of these resources (Ptas 1.9 trillion as of November) to finance its activities. The immediate effect of these operations was that interest charges as a percent of GDP leveled off in 1994 and will not rise

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1/ In the case of public enterprises, no medium-term program aiming at reducing transfers has been announced, except for the railways (RENFE). This plan specifies that the government will assume the historical debt of RENFE and the responsibility to finance the maintenance of the network of rail tracks and commuting services. This entailed an increase in central government outlays in 1995, because current transfers decrease by Ptas 28 billion (14 percent), but capital transfers increase by Pta 63 billion (107 percent). Savings in the final agreement fell short of those originally envisaged because the trimming of RENFE's labor force was almost halved during the negotiations. More generally, the authorities stated in the convergence plan that there is a relatively narrow margin for continued privatization in Spain, because the public enterprise sector is smaller in Spain than in surrounding countries. Hence, revenues from privatization in 1995 are budgeted at only Ptas 0.3 trillion, coming mainly from the sale of stock of the oil company (REPSOL). This sale, which are originally scheduled to take place in 1994, will probably not take place before the second half of 1995 and, in any case, will depend on stock market conditions.

2/ The October 1994 WEO notes that there are indications that countries with the largest fiscal imbalances were among those that have recently faced the highest increases in interest rates.

significantly in 1995. 1/ In coming years, however, interest payments
will increase again, because a significant part of the notes issued in 1993
and early 1994 will mature in 1996-97 and may have to be refinanced at
higher interest rates than were available when they were issued (Table 4).

Table 4. Public Debt Profile

Maturity Dates for Medium- and Long-Term Public Debt,
as of September 1994

(In billions of pesetas)

	1995	1996	1997	1998	1999	After 1999
3- and 5-year notes		874	2,982	2,280	3,107	312
Long-term debt					52	5,300

Source: Ministry of Economy.

In the baseline scenario, economic growth stabilizes around 3 percent a
year in 1995-96 and begins to decelerate by 1997, falling to 2.7 percent by
1999 (Table 5). This slowdown of growth can be attributed to a weakening of
investment due to persistent high interest rates and the difficulties of
keeping exports growing as capacity constraints in the export sector emerge.
The transmission mechanism involves the direct effect of interest rates on
the profitability of investment and on private consumption, and the antici-
pation of the repercussions of the failure to attain nominal convergence
with other European countries. The econometric estimation of these effects
is very difficult, especially in the case of Spain, whose economy has been
subjected to many structural changes in the last 20 years. Therefore, the
projections are largely judgmental, although they are not inconsistent with
standard models. 2/ In the projections, domestic demand grows on average

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1/ The Spanish authorities have estimated the impact of an increase of
1 percent in the discount on Treasury bills on interest payments. Such an
increase, if effected early in the year, would add about Ptas 30 billion in
interest payments over 1995. The baseline projections reflect the impact of
the 1.75 percent increase that has taken effect since December 1994.

2/ A standard equation considering the effects of demand and interest
rates on investment indicates that investment would initially grow at rates
averaging 5 percent a year, decreasing to around 3.5 percent after 1997; an
standard equation for consumption suggests a growth rate for this aggregate
around 2.8 percent for the whole period. See SM/91/178, Sup. 1 (9/4/91) for
a description of these equations and a model for the Spanish economy.

by 3.0 percent a year in 1995-97; the contribution of the foreign sector is projected to be slightly negative (-0.1 percent), with a small increase in imports. Growth of government consumption and investment are determined by the fiscal accounts and, therefore, are lower than the historical average.

In the projections, the unemployment rate stays above 20 percent. This disappointing result reflects remaining rigidities in labor markets, such as the high dismissal costs and archaic labor regulations. Employment is projected to grow by 2 percent a year in 1995-97, reflecting the relatively low elasticity of employment to growth at these fairly modest rates of growth. The growth of the labor force is also projected to weaken to less than 1 percent a year, as has historically happened during periods of relatively sluggish economic activity. 1/

As discussed in the chapter on the labor market, labor market rigidities--the costliness and difficulty of dismissal, in combination with *the dominant system of industry-wide collective bargaining--have tended to* make wage demands relatively unresponsive to labor market conditions. Wage negotiations are dominated by the "insiders" who have permanent jobs and strong protection against dismissal, while the employment consequences of excessive wage demands are felt almost entirely by the "outsiders" who either have fixed-term jobs or are unemployed. The moderation of wage settlements in 1993-94 came against a background of sharply rising unemployment, which threatened even the jobs of workers with indefinite contracts, as well as a two-year wage freeze in the public sector. With the economic recovery and the end of the freeze of public servants' wages, the absence of wage pressures cannot be taken for granted (even with the current unemployment rate) if further reduction of labor market rigidities is not achieved. Hence, while, in the projections, inflation continues its downward trend until 1997, in line with the medium-term target recently announced by the Bank of Spain, this reduction takes place in response to a relatively tight monetary policy, which dampens economic growth.

1/ The labor supply in Spain tends to grow slowly when economic activity is depressed; it grew by 1.7 percent a year in the late 1980s, but by only 0.8 percent a year in 1990-93.

Table 5.   Spain: Medium-Term Scenarios

(Percent of GDP unless otherwise indicated)

	1993	1994	1995	1996	1997	1998	1999
Reform Scenario							
Real output growth (%)	-1.1	1.9	3.0	4.0	4.0	4.0	3.8
Potential output growth	2.0	2.3	2.3	2.3	2.7	2.8	3.1
Output gap	4.6	5.0	4.3	2.9	1.7	0.5	-0.1
Unemployment rate 1/	22.7	24.2	23.9	22.0	20.6	19.2	18.0
Inflation (CPI)	4.6	4.7	4.1	3.5	3.0	3.0	3.0
Long-term bond yield	10.2	9.8	11.3	9.5	9.0	8.5	8.0
Fiscal balance							
Overall	-7.5	-6.7	-5.9	-3.9	-2.8	-1.9	-1.4
Primary balance	*-2.2*	*-1.4*	*-0.8*	*1.3*	*2.4*	*3.1*	*3.5*
Interest payments	5.2	5.3	5.1	5.2	5.2	5.0	4.9
Cyclical	-2.7	-2.9	-2.5	-1.6	-0.9	-0.3	0.1
Structural	-4.8	-3.8	-3.5	-2.3	-1.9	-1.7	-1.4
Primary structural	0.5	1.5	1.7	2.9	3.4	3.3	3.4
Outstanding debt	59.9	62.8	64.8	64.4	63.2	61.0	58.5
Status-Quo Scenario							
Real output growth (%)	-1.1	1.9	3.0	3.0	2.9	2.8	2.7
Potential output growth	2.0	2.3	2.3	2.3	2.0	1.7	1.7
Output gap	4.6	5.0	4.3	3.6	2.9	1.8	0.8
Unemployment rate 1/	22.7	24.2	23.9	23.2	22.9	22.3	21.8
Inflation - (CPI in %)	4.6	4.7	4.1	3.5	3.0	3.0	3.0
Long-term bond yield (%)	10.2	9.8	11.3	11.0	11.0	10.9	10.8
Fiscal balance							
Overall	-7.5	-6.7	-5.9	-5.8	-6.0	-6.1	-6.1
Primary balance	-2.2	-1.4	-0.8	-0.3	0.1	0.4	0.7
Interest payments	5.2	5.3	5.1	5.5	6.1	6.5	6.8
Cyclical	-2.7	-2.9	-2.5	-2.1	-1.6	-1.0	-0.4
Structural	*-4.8*	*-3.8*	*-3.5*	*-3.8*	*-4.4*	*-5.1*	*-5.7*
Primary structural	0.5	1.5	1.7	1.8	1.7	1.4	1.1
Outstanding debt	59.9	62.8	64.8	66.9	69.5	71.7	73.9

Source: Staff estimates.

1/   In percent of the labor force.

Without a relatively well-established relationship between unemployment and the change in inflation, it is impossible to define a nonaccelerating inflation rate of unemployment (NAIRU), and thus it is difficult to measure the output gap. In the baseline scenario, the effective labor force is equivalent to that implied by an unemployment rate of 20 percent; the output gap is gradually reduced because of low investment rates and a sluggish expansion of the effective labor force. 1/

b. **The fiscal outcome**

The general government deficit fails to significantly decrease after 1995--hovering around 5.9 percent of GDP. The share of GDP corresponding to primary expenditure falls by 0.4 percentage points a year in 1996-99, but the share corresponding to interest payments increases from 5.1 percent in 1995 to 6.0 percent in 1997. Hence, the effects of the measures announced to date barely offset the increase in interest payments in 1996-97, and are far from enough to reduce the total deficit to the levels in the convergence plan. For instance, taking into account the measures in the health sector and those affecting the pension system, the share of health expenditure and social transfers in GDP is stable in 1995-97. This moderation in the growth of social expenditures, however, does not represent a strong enough saving to compensate for the increase in interest payments. Neither are revenue increases projected to contribute significantly to the deficit reduction; in the absence of new measures, revenues would correspond to an almost constant share of GDP. Under the above conditions, the structural deficit is stable until 1996, deteriorating afterwards.

The scenario highlights the fact that, although the fiscal measures already specified by the authorities provide for an stabilization of primary expenditure as a share of output, they do not justify the expectation of a significant increase in fiscal revenues and of a reduction of the overall deficit. Indeed, the increasing weight of the public debt and of uncertainty due to the stronger likelihood that Spain would not achieve the convergence with the rest of Europe, lead to projected interest payments that are increasingly large fractions of output and a failure to significantly reduce the overall fiscal deficit.

4. **Alternative scenario**

The alternative scenario reflects the staff's judgment that achieving the reduction of the fiscal deficit envisaged in the convergence plan may require further fiscal measures and the continuation of structural reforms. In particular, measures in addition to improvements in tax collection will be necessary to obtain increases in revenues in the magnitude implied in the convergence plan. The path also illustrates the scope for discretionary measures in the area of economic subsidies and the impact of further reforms in the labor and goods markets (such as reductions in dismissal costs,

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1/ The output gap is computed using a Cobb-Douglas function, with the share of labor in output equivalent to 60 percent of GDP.

greater geographical and functional mobility of workers, changes in the wage bargaining process, changes in the land market and opening up municipal and other government monopolies).

a. **Selected fiscal measures**

Among the measures to strengthen revenues, a reassessment of the tax base of the public health system would be one with the most immediate and large impact. As noted in Chapter I, expenditure on public health care has increased rapidly in recent years and may continue to rise as a share of GDP over the medium term. Currently, public health care is partially funded by social security contributions; transfers and loans from the central government to finance health care and other areas of the social security system are budgeted at 5 percent of GDP in 1995. 1/ Given the social choices implied in the legal principle of tax financing of public health care expenditure existing in Spain, the limited short- and medium-term effect of some ongoing efforts to contain health-care expenditures, and the fiscal consolidation targeted by the Government for the next three years, a new source of revenues to finance part of public health care appears to be needed. Hence, the introduction of a new broadly based tax, with a yield equivalent to 1 percent of GDP, earmarked to finance public health care, is assumed in the alternative scenario.

Concerning expenditure, the reduction of financial support to public enterprises would be of great importance. A gradual, but firm decline in subsidies to state enterprises would not only generate savings amounting to 0.6 percent of GDP in 1996-97, but, because the lower base would generate additional savings in outlying years, it would send an important signal to financial markets.

Tax expenditure could also be reduced, in conjunction with the implementation of structural reforms. The elimination of some tax incentives to new homeowners could bring about 0.15 percent of GDP per year in additional revenues. This amount could be at least doubled by allowing tax incentives for investments introduced in 1993 (seemingly for cyclical reasons) to lapse. The reform of the land market and greater flexibility in the housing markets could, to a large extent, substitute for the current tax relief in terms of facilitating the purchase of new houses by low- and medium-income persons. Similarly, opening new markets to competition could create new investment opportunities, without requiring distortionary tax instruments.

If implemented over the next two years, these measures could improve the primary structural balance by 1.4 percent of GDP in 1996 and by a further 0.5 percent of GDP in 1997. The staff believes that the sooner a set of specific measures is adopted, the greater will be their impact. Of

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1/ Fully funding health expenditure through taxes (hence freeing contributions to fund only wage-related benefits) would require an additional 1 percent of GDP in new resources.

course, it will be difficult to have all of these measures effective in 1995, because the budget has already been approved. However, the alternative scenario presented below incorporates the expected effect on the interest rates and on expectations in general of an earlier discussion and adoption of legislation signaling specific steps toward fiscal consolidation.

b.   The macro scenario

Front-loading the fiscal adjustment and deepening of labor market reforms would bring rewards in the form of changed market expectations and lower interest rates, higher economic growth, a stronger increase in tax revenues, and a reduction in interest payments on the public debt.

The assessment of the effects of the fiscal and labor market measures on interest rates calls for considerable judgment. Currently, the peseta-deutsche mark long-term interest premium exceeds 4 percent. In the alternative scenario, it is assumed that, following the reforms described above, this differential will move toward 1-2 percent. This fall is considered to offset the effect on consumption of the reduction of private disposable income implied by the fiscal strengthening, permitting consumption growth to be 1 percentage point stronger than in the baseline scenario, despite the initial contractionary effect of higher taxes. Investment growth is projected to be 4 percentage points stronger, responding to lower interest rates, higher domestic demand growth (4.5 percent a year) and more favorable expectations. 1/ More investment permits higher exports in comparison with the baseline scenario, but the total contribution of the external sector to GDP growth is still negative (-0.4 percent), because of higher imports. Reflecting high domestic demand and a strong export sector, output grows at an average of 4 percent a year in 1996-97 (Table 5).

In the alternative scenario, additional labor market reforms, such as the limitation of the grounds in which dismissals are to be considered unjustifiable and the reduction of the role played by administrative tribunals, as well as the generalization of bargaining at the firm level, would permit to reduce the pressure for wage increases. This is estimated to contribute to a 3.5 percent annual increase in employment and a reduction of unemployment to 18 percent of the labor force (by 1999), and to the achievement of the targeted inflation rate without such a tight monetary policy. Structural reforms, the expansion of the effective labor supply,

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1/ The effects of the assumed decline in interest rates are broadly consistent with the equations mentioned above. The equations yield investment growth rates 3 percentage points higher in the alternative scenario, than in the baseline scenario due to lower real interest rates and higher demand. The consumption equation shows a slow growth in consumption in 1996 (below 2 percent), due to the smaller disposable income, and stronger growth (around 3.5 percent) afterwards.

and higher growth of investment would lead to potential output growth rates near 3 percent a year in the 1996-99 period.

c.   **Fiscal outcome**

Reflecting the adjustment measures discussed, the 1996 overall fiscal deficit is 2 percent of GDP smaller in the alternative scenario than in the baseline scenario. The difference widens further in 1997, because of the step decrease achieved in 1996, the assumed deepening of some of those measures, higher economic growth and lower interest rates. Therefore, in the alternative scenario, nominal convergence is achieved by 1997 with the overall deficit at 2.8 percent of GDP, instead of 5.8 percent of GDP shown in the baseline scenario. Sustained economic growth thereafter helps the overall deficit to decrease in following years and eventually leads to a small cyclical surplus by 1999.

In contrast to the baseline scenario, the alternative scenario exhibits a significant primary surplus in 1996, increasing to above 3 percent by 1999 (in the baseline scenario, the primary balance is negative in 1996 and only marginally positive in 1997-99). In this scenario, interest payments are reduced to less than 5 percent of GDP, due to lower deficits and interest rates. One third of the reduction in interest payments can be attributed to lower interests, the rest reflecting a lower debt due to smaller deficits (Table 6). By 1997, the debt to GDP ratio is still above the Maastricht limit but, as envisaged in the Treaty for the cases of a ratio above 60 percent, it is clearing decreasing after 1996.

Table 6.   Medium-Term Scenarios
Difference between Reform and Status Quo Scenarios

(In percent of baseline GDP)

	1996	1997	1998	1999
(Reform - Status Quo)				
Overall fiscal balance	1.9	3.1	4.1	4.6
Primary balance	1.6	2.4	2.8	3.0
Interest payments	-0.2	-0.7	-1.3	-1.6
Due to interest rates	-0.1	-0.3	-0.6	-0.6
Due to different amount of debt 1/	-0.2	-0.4	-0.8	-1.1
Outstanding debt	-1.9	-5.1	-8.8	-12.8
Cumulative GDP growth	1.0	2.1	3.3	4.4

1/ Neglecting the second order effects.

5. Conclusions

The scenarios suggest that the announcement of additional measures in the fiscal and labor market areas would be essential to achieve the goals stated in Spain's 1994 convergence plan. The fiscal measures should include the strengthening of the tax base to finance the public health care system, a cutback in the financial support to public enterprise, and reductions in tax expenditure. Such actions would help to reverse the trend of increasing interest rates, interest payments, and public debt projected for the coming years. The fiscal measures, however, would yield their full benefits only if they are accompanied by the continuation and deepening of the important structural reforms that the Spanish authorities have courageously pursued since the late 1980s. In particular, reforms such as those leading to a reduction in dismissal costs and an increase in labor mobility would be instrumental to increase the effective labor force and to permit the labor market to respond to the lower interest rate brought by a consolidated fiscal position. Fiscal strengthening, accompanied by structural reforms, can lead the Spanish economy to grow at rates near 4 percent a year in the near future, to a significant fall in the unemployment rate, and to the nominal convergence with other European countries.