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Italy: Selected Issues

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ITALY

Selected Issues

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Approved by the European I Department

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Italy: Basic Data

Area:	(Thousands sq. km):	301.3
Population:	(millions, 1996)	57.5
GDP per capita:	(1996, US\$)	\$21,130

(Percentage changes, except as otherwise indicated)

	1993	1994	1995	1996	1997 1/	1998 1/
Domestic economy						
GDP	-1.2	2.2	2.9	0.7	1.4	2.3
Domestic demand	-4.5	1.5	2.3	0.2	2.7	2.5
Consumption (households)	-2.4	1.4	1.8	0.7	2.0	1.9
Public consumption	0.5	-0.6	-1.3	0.4	0.2	0.2
Gross fixed investment	-12.8	0.5	6.9	1.2	0.5	5.0
Machinery and equipment	-19.5	8.1	13.5	1.2	1.8	6.9
Construction	-0.7	-1.9	-1.4	1.2	-0.8	3.0
Inventories (contribution)	-0.6	0.6	0.1	-0.5	1.2	0.3
Foreign sector (contribution)	3.4	0.7	0.7	0.5	-1.2	-0.1
Exports	9.1	10.7	11.6	-0.3	5.0	6.6
Imports	-8.1	8.4	9.6	-2.6	11.6	7.7
Employment	-4.1	-1.7	-0.5	0.4	0.0	0.4
Unemployment rate 2/	10.2	11.3	12.0	12.1	12.3	12.0
Manufacturing value added	-3.1	5.5	5.6	-0.7	2.2	3.2
Labor cost in manufacturing	4.2	2.6	5.6	4.7	4.1	3.4
Unit labor costs in manufacturing	2.2	-3.3	-0.4	4.7	1.7	1.3
Consumer prices (period average)	4.6	4.1	5.2	3.9	1.7	1.8
GDP deflator	4.4	3.5	5.0	5.1	2.6	2.0
External accounts 3/						
Export volume	8.9	11.6	13.2	-2.7	5.0	6.6
Import volume	-10.1	12.4	9.7	-4.8	11.6	7.7
Export unit value	11.4	3.7	9.3	4.3	0.2	1.0
Import unit value	11.7	4.0	12.3	0.0	0.1	1.1
Trade balance (in percent of GDP)	3.4	3.5	4.1	5.0	4.1	4.0
Current account (in percent of GDP)	0.9	1.3	2.3	3.3	2.7	2.6
Nominal effective exchange rate	-15.8	-4.4	-9.8	9.3	0.7	...
Real effective exchange rate (based on ULC)	-16.3	-6.7	-7.7	10.0	2.2	...
Public finances (in percent of GDP)						
General government						
Revenues	48.3	45.7	46.0	46.4	48.2	47.2
Expenditures	58.3	55.3	52.9	53.2	51.0	50.2
Balance	-10.0	-9.6	-7.0	-6.7	-2.8	-2.9
Primary balance	2.1	1.3	4.4	4.0	6.7	5.1
Structural primary balance	3.7	2.7	5.2	5.3	8.2	6.4
Debt	119.1	124.9	124.4	124.0	122.4	120.1
State sector 4/						
Balance	-10.0	-9.2	-7.1	-6.9	-2.7	-3.3
Financial variables						
Money (M2) 5/ 6/	3.6	1.3	-2.4	3.1	9.7	...
Total domestic credit 6/	6.4	5.8	4.3	5.2	3.4	...
Of which: To nonstate sector	1.9	0.7	2.4	3.2	5.1	...
Three-month rate on Treasury bills 7/	10.6	8.5	10.5	8.8	6.8	...
Minimum lending rate 7/	11.0	9.0	9.6	9.0	6.8	...

Sources: Data provided by the Italian authorities; and Fund staff estimates and projections.

1/ Staff estimates and projections, unless otherwise indicated.

2/ Excluding workers in the Wage Supplementation Fund.

3/ Volumes and unit values are customs basis; trade balance and current account are balance of payments basis.

4/ For 1993, unrevised series.

5/ Excluding long- and medium-term certificates of deposit.

6/ End-of-period.

7/ Period average.

INTRODUCTION AND OVERVIEW

1. The past year has witnessed remarkable progress in the two primary areas of Italy's macroeconomic adjustment effort since 1992: price stability and fiscal consolidation. Together with improving short-term economic prospects, which stand to be bolstered by possible EMU participation, there is now scope for a set of medium-term structural issues to take the center stage in the policy agenda. Clearly, successful performance under monetary union will demand not only macroeconomic stability, but also microeconomic flexibility. As in other EU countries, securing the latter will require structural action across a broad spectrum, embracing areas such as the tax system, the welfare system, and labor and product markets, in a manner that would exploit the complementarities between such policies. This paper explores three sets of issues from such a medium-term, structural perspective: labor market dynamics and policy options; the structure of the welfare system and related reform proposals; and the recent and prospective evolution of saving and investment, against the backdrop of Italy's large current account surplus and the prospective locking-in of exchange rates in monetary union.

2. Despite various initiatives in recent years, the performance of Italy's **labor market** has remained disheartening. While aggregate indicators of labor market performance are not particularly out of line with the rest of the EU, regional patterns suggest that problems in Italy may be more deep-rooted. Thus, the substantial North-South differential in unemployment rates—making for the highest dispersion of regional unemployment rates among OECD countries—has in recent years widened further, with unemployment rising unrelentingly in the South while declining gradually in the Center-North. Combining these trends with substantially lower participation rates in the South and very low levels of labor mobility, the emerging picture is one in which traditional adjustment mechanisms would seem to be operating rather poorly. Chapter I (by Eswar Prasad and Francesca Utili) empirically explores some of the factors that could underlie this performance, using data at different levels of disaggregation. In addition, the analysis employs a microeconomic data set containing information on household incomes, wealth, and demographic characteristics, derived from a survey conducted by the Bank of Italy. This approach has the advantage of controlling for individual characteristics that may be relevant, such as levels of human capital.

3. The chapter first looks into the question of whether unemployment persistence in recent years might simply reflect sectoral shifts, and rejects this hypothesis: while there has undoubtedly been structural change of this type, its rate has been fairly typical by historical standards. The analysis then turns to recent trends in sectoral wage dispersion, which past work based on aggregate data had shown to be particularly low. The results suggest that, while some increase in wage dispersion can be detected in the most recent period, sectoral and regional wage dispersion remains very narrow—especially, in the latter case, if one controls for hours worked. Finally, the chapter examines the main patterns and determinants of employment and labor force participation behavior. The results emphasize the regional dimension of the problem, but also point to a relatively weak link between education and employment outcomes and an inefficient job-matching mechanism, especially for first-time job

seekers. In terms of policy proposals, the results suggest that, in addition to encouraging greater wage differentiation and reducing constraints on hiring and firing, priority should also be attached to a number of other areas, including: strengthening the educational system (especially basic education) by emphasizing marketable skills, so as to facilitate school-to-work transitions; a more active encouragement of flexible work arrangements, that show a still comparatively low diffusion; and allowing for unfettered competition in providing employment intermediation, where the ineffectiveness of formal job-matching through public employment agencies has also hampered labor mobility. In closing, the chapter emphasizes the need to adopt a broad-based approach, within a broader framework of structural reforms that also tackle rigidities in product markets, as policy complementarities are likely to be important. It concludes that the longer-term macroeconomic performance of the Italian economy could well hinge on the success of these reforms.

4. The need to reform the **social welfare system** has gained prominence in the public debate in recent years. In addition to its budgetary cost, the system has come under criticism for being inadequately targeted, fragmented, and excessively complex. It has also been pointed out that, in being skewed toward pensioners and “insiders,” it may entail significant distortions on incentives of economic agents. In this sense, it could be partly responsible for the unsatisfactory performance of the Italian labor market. Chapter II (by Massimo Rostagno and Francesca Utili) attempts an assessment of the welfare system. The chapter begins by comparing Italy’s social programs to those prevailing in other EU countries. While Italy’s system shares a number of features with those of its main partners, it is atypical in a number of respects. Notably, it spends considerably more than other European countries on pensions, and the amount of resources left available to satisfy other forms of assistance (such as unemployment, family, and housing benefits, as well as active labor market policies) is markedly lower than in partner countries. Also, in contrast to almost all EU countries, Italy does not have a national scheme of residual protection of the poor. Thus: excess expenditure on pensions overprotects retirees at the expense of other categories, the absence of more general support mechanisms may have discouraged mobility and risk-taking in the labor market (and has hindered labor layoffs where required, such as in the banking sector), and the system fails in its primary task of providing an effective safety net for those most in need, notably among women and the young.

5. The paper then examines the fiscal aspects of the welfare system, by setting up a consolidated presentation of the social security accounts, not hitherto available, that aims at greater transparency of the financial flows between the different levels of government and agencies involved. This presentation facilitates forming a judgment on the extent to which the pension system diverts resources from other uses, notably from the protection of people of working age and, in particular, of those among them lacking a sufficient record of participation in formal employment. Finally, the paper turns to an empirical assessment of the effectiveness and efficiency of the social welfare system, relying on the same micro data set on households’ income and wealth used in Chapter I. Specifically, the analysis attempts to test the effectiveness of the instruments of social protection in reducing the incidence of economic

disadvantage among covered groups, as well as their efficiency in doing so at a minimum cost to the budget. It concludes that the system fails on both fronts. It inter alia finds that, out of a total expenditure of 3.3 percent of GDP on the selected welfare instruments reviewed, as much as one-third accrues to individuals clearly not in "need," due essentially to ill-designed targeting mechanisms. The chapter concludes by reviewing a number of reform proposals put forward by an ad hoc government commission (Onofri Commission) in February 1997, and the policy response to date. Despite moves in certain areas—most notably the further changes to the pension system introduced with the 1998 budget, and discussions on a new means-testing mechanism—broader reform initiatives of the welfare system as a whole remain to be defined.

6. Italy's external **current account** balance has undergone sharp shifts in recent years, swinging from a substantial deficit in 1992 to a surplus which, expressed as a share of GDP, constituted the largest such imbalance among the G-7 countries in 1996, and—despite some narrowing in 1997—remains significantly in excess of its medium-term sustainable equilibrium level as estimated by the staff. In this setting, were such large surpluses to persist (as projected by certain forecasters), questions about the compatibility of the lira's exchange rate with medium-term fundamentals would arise. To examine this issue further, Chapter III (by Ioannis Halikias) explores recent developments in the current account and its likely medium-term evolution from a saving-investment perspective. On the saving side, a number of key relations governing the various components of national saving are empirically estimated, and the question of potential offsets between these components is addressed. In turn, these offsets hinge crucially on three factors, subject to empirical testing: the extent of "Ricardian equivalence," the incidence of liquidity constraints, and the ability of households to take into account corporate profits in making their consumption and saving decisions. On the investment side, the most striking feature is the break since 1992 of the link between business profits and business investment, which had been particularly strong in previous periods.

7. On the basis of the empirical analysis, the chapter concludes that the trends in the current account since 1992 have to a large extent been driven by a set of mutually reinforcing factors that reflected the exceptional circumstances of the period, and can be expected to reverse themselves over the medium-term, leading to a narrowing of the current account surplus to more sustainable levels—without any appreciable change in the lira's effective exchange rate. This adjustment is projected to entail a small reduction in the national saving rate, with a decline in household and business saving more than offsetting a moderate increase in public saving, and a strong recovery of private investment. The paper's conclusions thus support, from a different perspective, earlier staff analysis that found the exchange rate value of the lira, and its ERM re-entry rate, to be broadly consistent with medium-term fundamentals (see IMF Staff Country Report No. 97/44, May 1997).

I. THE ITALIAN LABOR MARKET: STYLIZED FACTS, INSTITUTIONS, AND DIRECTIONS FOR REFORM¹

A. Introduction

8. As Italy prepares for European Monetary Union, the potential role of domestic short-term stabilization policies in responding to exogenous shocks has declined. This has brought to the forefront of policy discussions those structural features that could influence the ability of the economy to adjust to such shocks. As in other EU countries, the efficient and flexible functioning of the labor market is of particular importance in this regard and could become a key determinant of the economy's long-term growth prospects. This chapter provides a descriptive analysis of the main features of the Italian labor market, including certain key institutional features. Empirical aspects of the labor market are then characterized using a variety of econometric techniques and by examining data at different levels of disaggregation. This analysis sets the stage for an evaluation of recent reforms aimed at improving the functioning of the labor market and points to directions for further changes.

9. This chapter begins by examining recent developments in aggregate features of the labor market. During the latest cyclical recovery, total employment has remained stagnant and the unemployment rate has not declined despite modest output growth. These aggregate figures, however, conceal striking disparities in labor market outcomes across regions. For instance, by the end of 1997, the unemployment rate in the Northern part of Italy had declined to about 6 percent while the unemployment rate in the South was about 23 percent and rising. In addition, there are considerable disparities in employment and unemployment rates across different demographic groups. Section B examines these and other salient features of labor market developments from a longer-term perspective, reviewing developments in regional labor markets as well as the evolutions of employment shares and relative wages across sectors. The possible role of inter-sectoral labor reallocation in contributing to unemployment is also analyzed.

10. Section C provides a brief discussion of some of the main institutional features of the Italian labor market. In particular, the wage indexation and wage bargaining structures prevailing through most of the period examined here resulted in marked rigidities that constrained the ability of the economy to respond to adverse macroeconomic shocks. Further, they have resulted in narrow wage differentials across regions, sectors, and occupational classifications, possibly hindering the efficient allocation of labor, for instance, by reducing the incentives for inter-regional and inter-sectoral mobility. A number of changes and reforms to these institutional features of the labor market have been introduced in recent years. Although these reforms have had a salutary effect on aggregate wage and inflation dynamics, and played a major role in containing inflationary pressures following the Lira's exit from the ERM in

¹Prepared by Eswar Prasad and Francesca Utili (summer intern).

September 1992, they have had scant success thus far in boosting employment growth and reducing unemployment.

11. An evaluation of these reforms and suggestions for further changes based on an analysis of aggregate data are, however, complicated by the fact that such data could mask substantial compositional effects due to heterogeneity in the labor force. For instance, observed wage differentials between two sectors might be over- or understated simply on account of differences in the average level of human capital of workers in those sectors. To control such observable worker characteristics and to gain a more precise understanding of the wage structure, Section D uses micro data from the 1995 household survey conducted by the Bank of Italy. This micro data set is also used to examine the determinants of employment and labor force participation propensities. This analysis, combined with direct evidence from the survey on the characteristics of unemployed workers and reasons for non-participation in the labor force, provides insights that could be useful for designing measures to improve the efficient functioning of labor markets.

12. Section E draws together the implications of the different strands of empirical analysis and indicates specific directions for further labor market reforms. Although recent reforms, including the measures in the September 1996 tripartite agreement, indicate a recognition by the main social partners of the structural problems in the Italian labor market, a more concerted effort is required to tackle many of these problems. The analysis in this chapter points to the need for comprehensive rather than piece-meal reforms in the labor market, within a broader framework of structural reforms that also tackle rigidities in product markets.² The longer-term macroeconomic performance of the Italian economy could well hinge on the success of these reforms.

B. Recent Developments

13. This section reviews the main developments in the Italian labor market from an aggregate perspective. An examination of disaggregated data is then used to show that the aggregate data mask substantial variation in labor market developments across different sectors, regions, and demographic groups. These differences have potentially important implications for formulating and implementing labor market policy.

The broad picture

14. As in other European countries, the unemployment rate in Italy has drifted up over the last two decades (Figure 1, upper panel). The aggregate unemployment rate, however, masks enormous differences in regional unemployment rates. The differential between the unemployment rates in the South and the North has widened markedly since the 1970s. By the

²Bertola and Ichino (1996) argue that the limited and tentative reforms in recent years lacked credibility and may in fact have exacerbated the unemployment problem.

end of 1997, the unemployment rate was about 6 percent in the North, 10 percent in the Center, and 23 percent in the South.

15. A notable feature of the recent recovery has been the widening differential between unemployment rates in the North and the South. While the unemployment rate in the North has declined during the recovery, the unemployment rate in the South has continued to increase, reaching a historical high in 1997.³ Figure 1 (lower panel) shows that, during the recent recession, sustained negative employment growth over a period of three to four years resulted in employment losses that were especially large in the South. Employment in the South has only recently stabilized, after almost four years of successive declines, leaving the level of Southern employment substantially below that prevailing in 1992. Employment growth rates in the North and in the Center, on the other hand, turned positive in the latter half of 1995 but have tapered off since early 1997.

16. The unemployment rate is affected not just by developments in employment but also by changes in labor force participation rates that could be related to the business cycle as well as longer-term factors. To abstract from the effects of such changes and to obtain a more accurate picture of the evolution of employment and non-employment, it is useful to examine the employment-population ratio, defined as the ratio of employed persons to all potential labor force participants between the ages of 15 and 65.⁴

17. Figure 2 shows the employment-population ratio in Italy and also provides a cross-country comparison. This ratio has declined gradually in Italy since the early 1980s and, in 1997, stood at 52 percent. A striking fact is that this ratio has been historically much lower in Italy than in most other continental European countries and substantially lower than the ratios in Japan and the Anglo-Saxon countries. These figures imply that, even at those times during the last three decades when the Italian economy might be characterized as having been at "full employment," the employment-population ratio was below 60 percent, well below the corresponding ratios for other countries shown here. These data indicate a higher rate of non-employment among potential labor force participants in Italy than in other countries. It should

³The dispersion of regional unemployment rates in Italy is estimated to be the largest among OECD countries. Other EU countries that have significant but smaller regional disparities in unemployment rates include Belgium and Germany. In Belgium, the unemployment rate in 1997 was about 17 percent in Wallonia compared to 9 percent in Flanders. In Germany, the unemployment rate in 1997 was close to 20 percent in the east compared to 10 percent in the west. An important difference relative to the Italian situation is that, in both of these countries, changes in regional unemployment rates have been positively correlated during the 1990s. See Pugliese (1993) for additional perspectives on the regional segmentation of the Italian labor market relative to other European labor markets.

⁴These age brackets were chosen to facilitate international comparison. The minimum working age in Italy is 14.

be noted, however, that the low employment-population ratio in Italy, based on official employment statistics, is likely also partly to reflect the higher share of employment in the informal sector in Italy than in other industrial economies.⁵

Some disaggregated perspectives

18. The relatively stable aggregate employment-population ratio, however, conceals large disparities in the levels and evolutions of this ratio for males and females. Figure 3 (upper panel) shows that the employment-population ratio for males has declined gradually from 85 percent in the mid-1970s to about 72 percent in 1997. The employment-population ratio for females rose from 35 percent in the mid-1970s to about 40 percent in 1990 and has since remained essentially unchanged. Figure 3 (lower panel) also shows that the labor force participation rate for males has declined by about 10 percentage points over the last two decades, offset by a corresponding increase in the participation rate for females. The increasing presence of women in the labor force and in employment is similar to the experience of other industrial countries. Nevertheless, the participation and employment rates of women in Italy remain far below those in most other industrial countries. The increasing role of women in determining aggregate labor market dynamics has important implications for labor market policy that will be discussed later in the chapter.

19. Figure 4 shows employment-population ratios broken down by region. Not only has this ratio been lower in the South of Italy compared to the Northern and Central regions, but has declined in the South since 1990, and continued to decline, although at a slower rate, even during the recent recovery. In all three areas, the employment-population ratio for males has fallen over the last decade, but the decline has been especially sharp in the South. The female employment-population ratio has increased gradually since the 1970s in the North and the Center, but has remained essentially flat—at a low level of less than 30 percent—in the South.

20. Figure 5, which shows labor force participation rates broken down by region and by gender, also indicates marked regional differences, with a high and relatively stable participation rate in the North and the Center, and a low and declining participation rate in the South. While participation rates for males have fallen over the last two decades in all three areas, the participation rates for women have increased significantly in the North and the Center, but not in the South.

21. In summary, the Italian labor market is characterized by relatively low levels of labor force participation and employment in the formal sector. In particular, the constraints on female labor supply, which, until recently, included the lack of temporary and flexible work arrangements that tend to induce more women to enter the labor force, appear to be significant in Italy and to be particularly acute in the South.

⁵The existence of a large informal sector, may in turn, be attributable among other factors, to the fact that Italy has one of the highest tax wedges among OECD countries.

Sectoral developments in employment

22. Examining labor market dynamics at the sectoral level can be quite helpful in understanding patterns of overall labor market developments. Both short-term and longer-term evolutions of sectoral employment and wage structures are of interest in this regard.

23. Figure 6 (upper panel) plots the employment shares of five broadly defined sectors in the Italian economy over the last two decades. As in other industrialized countries, the share of employment in agriculture and manufacturing has trended downward over this period while the share of service sector employment has increased. The share of employment in public administration is quite high in Italy, although not atypical by European standards, and has in fact increased from 18 percent of total employment in 1977 to about 23 percent at present.⁶

24. Another distinctive feature of the Italian labor market is the significant proportion of employment that is classified as self-employment as opposed to dependent employment. In part, this reflects the pervasiveness of labor market regulations, which are particularly onerous for larger firms. These regulations have resulted in a large share of employment being in small businesses and in self-employment. The welfare implications of this phenomenon are not obvious, although it might be conjectured that larger firms have scale economies and that the preponderance of small firms and of self-employment therefore implies certain efficiency losses. In any case, it is useful to examine the prevalence of self-employment since this could have implications for designing labor market policies.

25. Figure 6 (lower panel) plots dependent employment as a share of total employment for the economy as a whole and also for each sector except public administration. The aggregate share of dependent employment has remained relatively stable at around 70 percent over the last two decades.⁷ While the share of dependent employment has declined in construction, the shares in other sectors have remained quite stable. These figures indicate that the share of self-employment in total employment is about 12 percent in manufacturing, 50 percent in services, and 65 percent in agriculture. It is possible, however, that these shares overstate the importance of self-employment. Anecdotal evidence indicates that dependent employment in

⁶The large share of employment in public administration appears to be a feature of other continental European economies as well. The OECD's estimate of the proportion of general government employment in total employment is close to 20 percent on average for the EU-15, compared to about 15 percent for the United Kingdom and the United States. It should be noted, however, that the definition of general government employment may be somewhat narrower than the measure of public administration used in this chapter.

⁷Other European countries that have a share of self-employment greater than 25 percent are Greece, Portugal, and Spain. By comparison, the share of self-employment is less than 15 percent in France, Germany, and the United Kingdom.

small business enterprises is sometimes masked as self-employment in order to obviate onerous labor market regulations. The recent strong growth of employment under the category termed *lavoro parasubordinato* (a form of free-lance employment) appears to be consistent with this interpretation.

26. Figure 7 provides an indication of the shorter-term evolution of sectoral employment. The top panel shows annual growth rates of employment in each sector while the bottom panel shows the contributions of each sector to total annual employment growth during the 1990s (the sectoral contributions sum up to total employment growth). Apart from a small increase in employment in construction in 1992, employment growth in all sectors of the economy was negative during the years 1992–94. Since then, employment levels in manufacturing and in agriculture have continued to decline while service sector employment has been the main contributor to overall employment growth. The decline in manufacturing sector employment during and after the recession is attributable in part to labor shedding prompted by the easing of layoff restrictions in the early 1990s.

Sectoral shifts and labor reallocation

27. These inter-sectoral disparities in employment growth rates raise some interesting issues. Changes in the patterns of net labor flows across sectors could indicate the success of recent reforms (discussed below) in enhancing the efficient allocation of labor. Further, it is of interest to examine if the recent persistence of Italian unemployment could in fact be attributable to sectoral shifts. Lilien (1982, 1990), for instance, has argued that large sectoral shifts in employment attributable to exogenous shocks could result in significant but temporary increases in unemployment. To shed some light on this, the following statistical measure of employment growth dispersion suggested by Lilien can be used to proxy for inter-sectoral labor reallocation:

$$\sigma_t^2 = \sum_{i=1}^N \left(\frac{x_{it}}{X_t} \right) (\Delta x_{it} - \Delta X_t)^2 \quad (1)$$

where x_{it} is employment in sector i at time t , X_t is aggregate employment at time t , and the operator Δ represents the growth rate of a variable. Each industry's weight was divided by the variance over time of that industry's employment growth rate in order to adjust for the effects of different cyclical sensitivities of employment growth rates across industries. Note that this measure captures only net rather than gross flows of labor across sectors. Typically, this measure of employment growth dispersion tends to rise during periods of major structural change when there are increases in net flows of labor across sectors.⁸ Since annual data are

⁸Gross flows of labor across sectors generally dominate net flows in terms of magnitudes. In
(continued...)

used here in constructing this variable, some of the higher frequency movements in employment growth dispersion that are related to the business cycle rather than longer-term structural change are smoothed over in this analysis.

28. Figure 8 (upper panel) shows that this measure of employment growth dispersion has been relatively low over the last few years and well below its peak in the mid-1980s, when the economy was clearly undergoing considerable structural change. Thus, at first glance, there is little evidence of a recent increase in the pace of structural change in the Italian economy at this broad level of sectoral disaggregation.

29. Davis (1987) has argued that Lilien's measure of the sectoral dispersion of employment growth rates may be inadequate for capturing longer-term flows of labor. In particular, sectoral or aggregate shocks that lead to labor flows in one direction could be reversed by a subsequent shock. Thus, Lilien's measure would tend to be dominated by short-term labor flows rather than longer-term labor reallocation. Davis constructed the following labor reallocation measure that attempts to measure whether net inter-sectoral flows of labor in one period are reinforced or reversed by subsequent flows of labor:

$$\sigma_{t,j}^2 = \sum_{i=1}^N \left(\frac{x_{it}}{X_t} \right) (\Delta x_{it} - \Delta X_t) (\Delta_j x_{it-1} - \Delta_j X_{t-1}), \quad (2)$$

where Δ_j represents the percentage change in a variable over j periods. Relatively large (small) values for $\sigma_{t,j}^2$ indicate that the time t direction of labor reallocation reinforces (reverses) the time $t-1$ reallocation over the preceding j -period horizon. This measure is designed to examine whether, over different time horizons, labor flows are consistent with patterns of structural change in the economy, where structural change is to be interpreted as reflecting changes in the sectoral composition of total employment.

30. Labor reallocation measures computed with j equal to 2 and 4 are displayed in the lower panel of Figure 8. These measures of labor reallocation are well below their respective levels reached in the mid-1980s, although there is a modest increase in both measures of labor reallocation since 1994. The measures of employment growth dispersion and labor reallocation examined here portray a similar picture of an economy that is undergoing some structural change but at a modest rate that is fairly typical by historical standards. Hence, the recent persistence in the unemployment rate cannot be attributed to sectoral shifts. Further, there is at best limited evidence that recent labor market reforms have increased net labor

⁸(...continued)

recessions and periods of major structural change, however, the ratio of net flows to gross flows tends to rise. Lilien (1982) has argued that a significant fraction of cyclical unemployment in the United States is attributable to such sectoral shifts.

flows across sectors. However, it should be recognized that, at finer levels of disaggregation than those used here, the evidence for structural change could be stronger.

Developments in nominal and real wages

31. During the 1970s and 1980s, the wage formation process in Italy was characterized by annual indexation of nominal wages to realized inflation and by what was effectively a centralized wage bargaining structure. The first of these features implied that real wage flexibility was constrained by a floor of zero real wage growth. This is quite evident in the evolution of real wage growth in industry shown in Figure 9 (top panel). Except for brief periods where the annual frequency of indexation implied that nominal wage growth could be temporarily below CPI inflation, real wage growth was positive virtually throughout the 1970s and 1980s, irrespective of aggregate business cycle conditions. This element of wage indexation also appears to have contributed to the persistence of inflationary shocks throughout this period.

32. A key aspect of the 1992–93 labor market reforms involved changes in the wage formation process.⁹ The automatic indexation of wages was eliminated. Instead, an agreement was reached with the unions whereby sectoral contracts negotiated at the national level would determine nominal wages for a period of two years, based on targeted inflation, and employment and working conditions for a period of four years. After two years, wage contracts could be re-negotiated. The most important feature of this agreement was that discrepancies between actual and targeted inflation over the duration of a contract were to serve only as a guide for future wage negotiations and would not result in an automatic compensation for this differential.

33. Although the two-year duration of wage contracts may have introduced some inertia in nominal wages, overall the incomes policy has had a clear salutary effect on real wage formation. It is particularly noteworthy that, unlike in previous instances of exchange rate depreciation, the substantial depreciations of the lira in 1992 and in 1994–95 did not feed through into wages. As shown in the middle panel of Figure 9, real wage growth was significantly negative in industry from the latter half of 1992 through the first half of 1996. A similar picture is revealed by the general wage index (for the overall economy) shown in the bottom panel of this figure. This evidence suggests that changes in the wage formation process have had a significant effect on improving real wage flexibility.¹⁰

⁹Other aspects of these reforms are discussed below. For details on the July 1993 agreement, see Demekas (1994).

¹⁰Fabiani, Locarno, Oneto, and Sestito (1997) argue that the wage moderation engineered by the incomes policy embodied in the 1992–93 agreement may have contributed to some of the recent decline in inflation.

34. However, nominal wage growth has increased marginally since the beginning of 1996, while the rate of inflation has declined significantly. Consequently, real wage growth turned positive in the latter half of 1996 and has continued to increase through 1997. The increase in nominal wage growth during 1997 partly reflects an element of catch-up in newly negotiated wage contracts that were based on targeted inflation for the next two years (as per the wage bargaining framework) but that also sought to make up the difference between actual and target inflation over the previous two years. In addition, some of the contract negotiations concluded during 1997 were for contracts that had expired in 1996. Consequently, lump-sum payments were made in 1997 to account for the retroactive wage increases for 1996.

35. Table 1 shows the pattern of wage negotiations within the context of the new wage bargaining framework introduced in July 1993 for certain important industries. The table shows, for the duration of the contract, the "target" inflation rate underlying the contract negotiations, the average nominal wage increase, and, where available, the realized rate of CPI inflation. A notable feature is the significant decline in target inflation underlying contracts renewed in 1997.

36. Thus, despite the uptick in nominal wage growth during 1997, it is clear that inflation expectations have been brought down markedly by both the good inflation performance in recent years and the prospects of restrained inflation under EMU. However, these wage developments, occurring as they have in an environment with modest employment growth and persistently high aggregate unemployment, indicate the risks inherent in longer-duration nominal wage contracts since such contracts could implicitly result in some degree of real wage inflexibility in the short run.

37. An examination of sectoral wage growth figures (Table 2) reveals a picture similar to that conveyed by the aggregate figures. Real wage growth during the period 1993–1995 was negative in nearly all sectors of the economy. In 1996, as inflation continued to decline from the average levels seen in recent decades, real wage declines moderated considerably. In 1997, on the other hand, real wages increased significantly. This increase was quite broad-based, except in agriculture and in transport and communications, which had small real wage declines. As noted above, these wage increases partly reflect special and transitory factors. Nevertheless, they raise concerns that some real wage rigidities remain in the economy especially since, except for services and public administration, most of the sectors and industries with real wage increases in 1997 also continued to have declines in their employment levels (see Figure 7), despite the recovery in aggregate demand. This also raises some longer-term issues concerning the sectoral wage structure, which are the topic of the next sub-section.

The sectoral wage structure

38. An important characteristic of the Italian labor market is considered to be the lack of sectoral (and, as discussed later, regional) wage differentiation.¹¹ The narrowing of differentials in wage levels in the 1970s and the prevalence of centralized wage bargaining are believed to have resulted in a rigid sectoral wage structure. This has adverse implications for labor market adjustment. The lack of inter-sectoral wage flexibility implies that the brunt of adjustment to sector-specific shocks would have to be borne by employment levels, with consequent adverse effects on aggregate unemployment. Further, the lack of wage differentiation could reduce incentives for inter-sectoral labor mobility, thereby constraining both the short-run and longer-run adjustment of labor markets to exogenous shocks.¹²

39. To provide a measure of wage differentiation across sectors, Figure 10 (upper panel) shows the dispersion—as measured by the standard deviation—of (the logarithms of) nominal wages for dependent employees in 11 industries using three alternative wage series: (i) minimum contractual hourly wage indices for laborers, (ii) the minimum contractual wage per employee for all workers, and (iii) the minimum contractual wage per employee for laborers.

40. As has been documented by numerous other authors (e.g., Erickson and Ichino, 1994), the wage indexation system resulted in a significant compression of wage differentials during the 1970s, both across sectors and across skill groups. The sharp decline in the sectoral dispersion of wages during this period is evident for all three measures of wages. Changes to the wage indexation system in the mid-1980s resulted in an increase in wage dispersion but, thereafter, wage differentials across sectors continued to decline gradually. Since 1995, however, the sectoral dispersion of wages appears to have increased, as evidenced by increases in all three dispersion measures. This suggests that the 1992–93 changes in wage bargaining arrangements (see discussion below) have been effective in promoting flexibility in the sectoral wage structure by, inter alia, providing an enhanced role for enterprise-level contracts that explicitly link wage settlements to measures of productivity and profitability. Nevertheless, the substantial compression of sectoral wage differentials relative to historical levels suggests that the Italian labor market remains relatively inflexible in this dimension and that further progress is necessary.

¹¹The OECD estimates that the coefficient of variation of labor cost levels per working hour for production workers across thirteen industries in the manufacturing sector was 0.15 in Italy in 1994, compared to about 0.30 for Canada, Japan, and the United States, and an average of 0.20 for France, Germany, Spain, and the United Kingdom (OECD, 1997).

¹²Bayoumi and Prasad (1997) find that, for Italy, industry-specific shocks are more important than common shocks across all industries for explaining fluctuations in disaggregated output growth.

41. An additional fact gleaned from the sectoral data is the reduction in contractual annual working hours in the industrial sector (Figure 10, lower panel), indicating an even greater decline in labor input in this sector than would be derived by examining only employment figures. This is consistent with other evidence on the substitution of capital for labor in the manufacturing sector in Italy and other European economies (see, e.g., Blanchard, 1997) and has implications for long-term employment levels in the industrial sector.

C. Labor Market Institutions and Their Effects

42. As is the case with labor markets in other economies of continental Europe, the Italian labor market has been characterized by a number of inefficiencies engendered by institutional factors. This section provides a brief review of the key institutional features that may have played a role in hampering the efficient functioning of the labor market. Recent reforms and changes in these features are also examined.¹³

43. The unemployment insurance system in many industrial countries is viewed as having adverse incentive effects that lead to the persistence of increases in unemployment. Loosening of eligibility criteria, increases in benefits, and broadening of coverage of income support mechanisms that are not directly tied to incentives for job search or retraining often tend to exacerbate and prolong the unemployment problems that they are intended to allay. In addition, the financing of such income support programs often involves increases in distortionary taxation which could worsen the problem.

44. The Italian unemployment insurance (UI) system has a rather atypical structure, especially in comparison to other continental European countries. For instance, the total expenditure on public unemployment benefits (only about ½ percent of GDP) is consistently lower than in other European countries (on this, see Chapter II of this paper). Further, since the coverage of unemployment benefit schemes is lower in Italy than in most other EU countries, the usual disincentive effects that plague many UI systems are comparatively less pronounced.

45. While direct unemployment insurance benefits are quite limited, a more important component of the benefits system is the *Cassa Integrazione Guadagni* (CIG). The CIG was originally designed to compensate for hours not worked due to temporary reductions or suspensions of activity by industrial firms, but has become a key instrument of income protection for workers in the manufacturing sector. The coverage of CIG has expanded over

¹³The 1970 Charter of Workers' Rights (*Statuto dei Lavoratori*) resulted in substantial rigidities in hiring and firing procedures, the compensation structure, rules for workers' mobility within firms, etc. These rigidities and their deleterious effects are well-documented in the literature. See Demekas (1994) and Bertola and Ichino (1996) for a comprehensive description of labor market institutions in Italy, and Brunetta and Ceci (1996) for details on the 1992–93 tripartite agreement and related reforms.

time and now includes the construction sector, although it is still limited to industrial firms with 16 or more workers and other commercial enterprises with more than 200 workers. The CIG provides, for a period of up to twelve months, a benefit replacement rate equal to 80 percent of the last earned wage. A special component of the CIG allows similar benefits to be extended for a period of up to four additional years in cases of restructuring or reorganization by firms.

46. The number of hours compensated under the provisions of the CIG are shown in Figure 11 (upper panel). Clearly, the CIG has played an important role in unemployment stabilization in the Italian economy over the last two decades, with a large number of manhours compensated under this scheme in the early 1980s. During the recent recession, there was a cyclical increase in the number of hours compensated under the CIG but the level remained well below that reached in the 1980s. In the 1990s, the role of the CIG has partly been substituted for by “mobility lists”, which make the cyclical component of unemployment more transparent.¹⁴ In addition, a mobility allowance was introduced in 1991 to replace Special Unemployment benefits.

47. With these changes, permanent redundancies are now identified more promptly. Moving workers from the CIG to mobility lists and providing them with a mobility allowance has had the advantage of improving the incentives of workers who are laid off to engage in active job search. Firms are required to give priority in their hiring to workers on mobility lists and, in some cases, also receive subsidies for such hiring. Further, recent measures to tighten eligibility requirements have also led to a decline in the total number of hours compensated under the CIG and suggest that some of the adverse incentive mechanisms engendered by this scheme have been dealt with to a significant extent.

48. However, the Italian UI system does still suffer from a few shortcomings. The CIG scheme effectively provides income protection to “insiders,” thereby reducing the role of “outsiders” in influencing wage and employment bargaining outcomes. Further, the limited coverage of other forms of unemployment insurance tends to inhibit mobility across jobs by acting as a disincentive for risk-taking in the labor market. Another concern is the fact that first-time job seekers and labor market re-entrants receive no income support through the UI system. Thus, while the Italian UI system has not, unlike in many other European countries, contributed significantly to increases in aggregate unemployment, deficiencies in the structure of this system have in some respects inhibited the efficient functioning of the labor market.

49. The role played by unions is also an important determinant of the nature of labor market adjustment in response to shocks. For instance, unions tend to be more concerned

¹⁴Workers covered under the CIG are not classified as unemployed in official unemployment statistics while workers on mobility lists are. The unemployment rates reported in this chapter incorporate the Bank of Italy’s adjustment to the unemployment figures to include workers compensated by the CIG.

about wage and employment prospects of “insiders,” with consequent implications for employment and unemployment dynamics in response to shocks. One measure of the power of labor unions is their degree of militancy, measured by strike activity. Figure 11 (lower panel) plots the number of work hours lost in labor conflicts since 1970. This figure shows the high degree of union militancy during the 1970s and early 1980s and a steady reduction in strike activity thereafter; union density has also declined in recent years, as documented by numerous authors (e.g., Demekas, 1994). Nevertheless, labor unions continue to play a key role in wage negotiations, especially since wage contracts negotiated by national unions tend to form the basis for wage formation in all sectors of the economy.¹⁵ The reduction in labor disputes is, therefore, also a positive indication of changing attributes to wage formation.

50. An important determinant of the ability of different parts of the economy to respond to shocks is the degree of aggregate as well as disaggregate wage flexibility. Industry- and region-specific shocks play an important role in economic fluctuations in most industrial countries. Rigidities in wage differentials across sectors and across regions could translate temporary shocks into permanent effects on employment and unemployment. Further, wage differentials that do not accurately reflect productivity differentials are likely to hinder the efficient allocation of labor by reducing the incentives for labor mobility. This is evidenced, for instance, by the steady decline over the last decade in inter-regional migration despite the widening disparity of regional unemployment rates.¹⁶

51. Certain institutional features appear to have contributed to a sub-optimal degree of wage differentiation. Two features, in particular, are widely regarded as being responsible for the limited wage differentiation observed in Italy—the wage indexation system and the wage bargaining system. In an attempt at promoting greater wage equality, the wage indexation scheme known as the *scala mobile* was modified in 1975 to provide similar cost-of-living adjustments for all workers. This resulted in a sharp compression of wage differentials across occupational classifications in the 1970s. The 1983 reform of the indexation system halted the decline in wage differentiation and the indexation system was abolished altogether in 1992.¹⁷

¹⁵Labor unions have also played an active role in the tripartite “consultation process,” for example, in recent negotiations of pension reform, labor market regulations, etc., indicating their continued importance as social partners.

¹⁶Faini, Galli, Gennari, and Rossi (1997) document trends in inter-regional migration in Italy. Based on survey evidence, they also list a number of institutional factors, such as an inflexible housing market, that have hindered migration within Italy.

¹⁷The 1983 reform of the indexation system included a 15 percent reduction in inflation coverage. As discussed by Bertola and Ichino (1996), the indexation system was then progressively weakened. In particular, a cap was instituted on *scala mobile* payments in 1984, and cost-of-living adjustments were made proportional to earnings in 1986.

52. The centralized wage bargaining system has also contributed to the relatively small inter-sectoral and inter-regional wage differentials in Italy compared to most other industrialized countries. The wage bargaining procedure resulted in legally binding wage floors that were negotiated for each sector and for category of occupation by unions and employers at a central level and that were applied uniformly across regions. Since negotiated wage floors have traditionally accounted for a substantial fraction of most workers' earnings, this centralized bargaining procedure resulted in relatively narrow differentials in wages across regions and across sectors.

53. The new wage negotiating framework introduced in 1993 formalized a two-level wage bargaining structure, where the second level of bargaining was not limited to larger firms, as had been the case before. Under this framework, national industry-level contracts determine the structure and evolution of wages over a two-year period and determine employment and working conditions over a four-year period. Industry-level wage contracts are to be set in a manner consistent with official inflation targets. The second level of bargaining would be at the firm level and would allow wages to be linked to productivity or profitability indicators.

54. The change from a relatively centralized to a decentralized wage bargaining system carries risks and opportunities. As noted by Calmfors and Driffill (1988) and Calmfors (1993), there is likely to be a non-monotonic relationship between the degree of centralization of wage bargaining and labor market outcomes. Centralized unions are more likely to internalize the externalities inherent in the fact that unions are more beholden to "insiders" than to unemployed workers who are not union members. On the other hand, centralized unions could lead to lower wage differentiation, as has been the case in Italy. Further, these factors interact with the degree of union power and the degree of co-ordination among unions in the wage-setting process.¹⁸ Hence, it is difficult to determine precisely the optimal wage bargaining structure for maximizing social welfare.

55. Nevertheless, given the changes in the wage bargaining structure and other aspects of wage formation, it is useful to provide a preliminary empirical assessment of the effects of these reforms on the wage formation process. The next section of this chapter provides a more detailed empirical examination of the Italian labor market that assists in a preliminary evaluation of the reforms described here and points to fruitful directions for further reforms and associated institutional changes. More recent labor market reforms, covered by the tripartite agreement of September 1996 (*Accordo per il Lavoro*), will also be discussed below.

¹⁸Decentralized wage bargaining could enhance wage differentiation but could lead to a wage-price spiral if relative wage competition among unions is significant, thereby resulting in adverse effects on aggregate employment.

D. The Structure of Earnings and Employment: Evidence from Micro Data

56. This section presents an alternative perspective on the main features of the Italian labor market. Individual data from the Bank of Italy's household survey are used to analyze the wage structure in more detail. Further, evidence from this micro data set on the reasons for unemployment and for non-participation in the labor force could help gain some insights into factors that affect employability and labor supply decisions and that could be used in formulating appropriate policy measures.

Earnings

57. Average measures of wage differentials across regions and across sectors could be contaminated by aggregation bias due to worker heterogeneity. For instance, an apparently large average wage differential between two sectors could simply reflect differences in the average level of human capital of workers in the two sectors. Micro panel data can be used to control for observed worker attributes and thereby provide more accurate measures of wage differentials. In addition, such data can also be used to obtain measures of wage differentials between male and female workers, across different skill levels, across different firm sizes, etc., that control for other observed attributes of workers.¹⁹

58. The data used in this part of the analysis are drawn from the 1995 version of the Bank of Italy's household survey, which includes data on individual workers' earnings and other characteristics. The analysis of the wage structure is limited here to dependent workers (employees) and excludes self-employed workers. An important caveat is that the earnings data represent net after-tax earnings. Given the progressivity of the income tax structure, this could in principle understate wage differentials across, for instance, skilled (high wage) and unskilled (low wage) workers. Since the tax structure is similar across regions and local income taxes are not significant, estimates of regional wage differentials are less likely to be affected by this feature of the data.

59. Table 3 reports results for regressions of weekly earnings. The first column of this table shows the results from the regression using the full sample of employed workers. The estimated coefficients on the industry dummies are shown in one of the bottom rows of the table (relative premium). These coefficients represent estimates of earnings differentials across sectors, relative to earnings in the manufacturing sector. Since the earnings variable is expressed in logarithms, the coefficient estimates are interpretable as percentage differences relative to earnings in manufacturing.

¹⁹See Keane and Prasad (1996) for a discussion and an empirical example of how estimates of sectoral wage equations using data aggregated at a sectoral level can be biased by compositional effects.

60. Average earnings in agriculture are estimated to be about 60 percent lower than in manufacturing. Among other sectors, however, the earnings differentials are in general quite narrow. There is only about a 10 percent differential between earnings in manufacturing and average earnings in trade, transport and communications, and real estate. As in other countries, earnings in the household and personal services sector are lower than in manufacturing while earnings in the financial sector are among the highest

61. The coefficients on the dummy variables Center and South (in the first column) capture the estimated earnings differentials of workers in these regions relative to workers in the North, after controlling for worker characteristics as well as sector of occupation. These coefficient estimates indicate that, relative to the North, average earnings are 8 percent lower in the Center and 18 percent lower in the South.

62. The earnings premium for workers with a high school education compared to workers without a high school degree is 19 percent. Workers with a college degree earn an additional premium of about 10 percent. The large earnings premium for workers with higher levels of general human capital is consistent with other evidence of large and increasing skill premia due to skill-biased technological change since the 1970s—similar to evidence that has been documented for other industrial countries. The coefficient on the dummy variable for males indicates that male workers on average have 28 percent higher earnings than female workers, even after controlling for education levels, labor market experience, region and sector of employment, and other observable attributes. The coefficient estimates for the firm size dummies clearly show that, despite controlling for observed worker characteristics, workers in larger firms have significantly higher earnings.²⁰

63. The estimated sectoral and regional earnings differentials for 1995 suggest that the labor market reforms introduced in 1992–93 do appear to have helped in fostering some degree of wage differentiation.²¹ It is useful, in this context, to examine regional and other aspects of differentials *within* each sector. Hence, the earnings regressions were also run separately for workers in each sector. The only difference relative to the regression for the full sample is that the sectoral dummies were excluded. The sector-specific wage regressions are reported in columns 2–10 of Table 3.

²⁰This is potentially an important result. Since larger firms are permitted to link pay levels above nationally-contracted minimums to firm-specific productivity and profitability, this finding suggests that labor productivity is, on average, higher in larger firms. This indicates that there could be significant efficiency losses from the onerous labor market regulations that have fostered an industrial structure that is skewed toward smaller firms.

²¹Bertola and Ichino (1995) and Erickson and Ichino (1995) examine wage inequality and changes in the Italian wage structure over time.

64. The North-South earnings differentials are greater in industries such as construction and, particularly, in industries that typically have lower union densities—including agriculture, real estate, and household and personal services. Not surprisingly, the regional differentials are among the smallest in public administration. The existence of a statistically and economically significant earnings premium for workers in larger firms is a robust finding across virtually all sectors of the private economy.

65. A different perspective on the wage structure is provided by using hourly, rather than weekly, earnings. It is possible that employment contracts stipulate specific weekly wages but, as part of an implicit bargain between firms and employees, both regular and overtime hours could bear the brunt of adjustment in response to changes in demand conditions. Table 4 reports results from wage regressions similar to those reported in Table 3 but using hourly earnings as the dependent variable.

66. The regression with all observations (column 1) shows that differentials in hourly wages between the North and the South are about 12 percent, much lower than the estimated weekly earnings differential of 18 percent. Thus, measures of weekly earnings appear to overstate the extent of inter-regional wage differentiation. The hourly wage premium for workers with a college degree compared to workers with only a high school degree is estimated to be about 28 percent, much larger than the weekly earnings premium. The male-female earnings differential, on the other hand, drops to 9 percent using this measure of hourly earnings. The estimated effect of firm size on earnings remains essentially unchanged.

67. The estimated sectoral differentials for hourly wages, shown in the bottom row of Table 4, are in many cases quite different from the differentials in weekly earnings. For instance, the average hourly earnings differential between agriculture and manufacturing is close to zero, compared to the 60 percent differential in weekly earnings. This discrepancy, of course, reflects the substantially lower average weekly hours worked in agriculture compared to manufacturing. Another notable feature of these results is the substantially lower dispersion of hourly earnings across sectors, compared to the dispersion of weekly earnings.

68. The results of sectoral wage regressions using the hourly earnings measures are reported in columns 2–9 of Table 4. Consistent with the aggregate results, these results show that, in most industries, the North-South differentials in hourly earnings are lower than the differentials in weekly earnings that do not adjust for hours worked. For some industries such as transport and communications, financial services, and public administration, there are essentially no significant differences in wages between the North and the South.

69. In summary, using measures of weekly earnings, there appear to be some indications of a recent widening in the structure of earnings differentials among geographical regions and across broad sectors of the economy. However, after adjusting for weekly hours worked, it appears that actual differentials in hourly earnings remain quite narrow.

Employment, unemployment, and nonemployment

70. Data from the Bank of Italy household survey can also be used to examine labor market activities—including the employment or unemployment status—of individuals in the sample. In addition, these data provide interesting insights on the labor market status of potential labor force participants, defined as including all persons between the ages of 14 and 64.

71. Labor force participation rates derived from this micro data set are broadly consistent with the picture obtained from other data sources, with the total labor force participation rate at under 60 percent, lower participation rates in the South than in the North, and much lower participation rates among women than among men.

Labor Force Participation Rates²²

(In percent)

	Italy	North	Center	South
All	58.2	60.8	58.5	55.3
Males	72.5	71.8	72.3	73.4
Females	44.2	49.9	45.4	37.4

72. One of the questions included in the survey is about the reasons for non-participation in the labor force. Although the information obtained from this question is limited, it is nevertheless quite revealing. As the tabulation below shows, a substantial fraction of persons between the ages of 14 and 64 who did not consider themselves to be active labor force participants identified themselves as housewives, indicative of the weak attachment of married women to the labor force. There are marked regional disparities in these data. Married women in the South appear to have much weaker labor force attachment than those in the North. Persons with pensions from work constitute about 30 percent of persons not in the labor force in the North but only 12 percent in the South.

²²The numbers reported in this and subsequent tabulations in this section are derived from the authors' calculations based on data from the Bank of Italy's household survey for 1995.

Reasons for Lack of Labor Force Attachment

(In percent)

	Italy	North	Center	South
Housewives	36.9	30.4	35.2	43.8
Pensioner from work	20.5	29.7	21.4	11.5
Other pensions	7.3	6.0	8.2	8.0
Other (including students)	35.3	33.8	35.3	36.6
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

73. Next, we examine the principal activities of labor force participants. The tabulation below classifies labor force participants into those who have dependent employment, the self-employed, those looking for their first job, and persons who have held jobs in the past but are currently unemployed. Overall, about 7 percent of labor force participants considered themselves unemployed while an additional 10 percent were unemployed and in search of their first job. These figures together indicate an aggregate unemployment rate higher than the official unemployment rate (based on the Labor Force Survey) largely because the latter measure uses a more stringent definition of labor force participation based on job search activity.

Labor Force Participants: Current Activity

(In percent)

	Italy	North	Center	South
Dependent employment	62.1	70.7	62.7	51.9
Self-employed	20.6	21.6	23.5	17.9
Looking for first job	10.3	3.7	7.8	19.5
Unemployed	7.0	4.1	6.1	10.7
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

74. A striking feature of this tabulation is, again, the large discrepancy among regions. In the North, only a total of about 8 percent of labor force participants were looking for their first job or were unemployed in 1995. In the Center, this proportion was about 14 percent and, in the South, it reached 30 percent, of which almost two-thirds were first-time job seekers. The high percentage of labor force participants in the South in search of their first job

hints at the inadequacy of mechanisms for school-to-work transitions. In the North, on the other hand, the fraction of labor force participants looking for their first job was less than 4 percent, indicating the relative tightness of the labor market in that region. The regional disparity of unemployment rates depicted by the numbers in this table also points to inefficiencies in the mechanisms for matching potential workers with available jobs. In particular, public employment agencies have hitherto enjoyed a monopoly in providing employment intermediation. These agencies did not provide job listings or other mechanisms for matching workers and jobs even across provinces, thereby failing to facilitate the geographical mobility of labor.

75. Mechanisms for absorbing new entrants into the labor force are an important determinant of the efficient functioning of the labor market. The above tabulation indicated that, in this regard, the Italian labor market appears to be inefficient. An examination of unemployment rates among younger workers, between the ages of 14 and 25, confirms this and reveals a sizeable youth unemployment rate (see tabulation below). This rate is about 20 percent in the North and over 60 percent in the South. Even young workers with higher levels of education appear to face high unemployment rates in all regions.²³ This points to a crucial problem with the functioning of the labor market in Italy—the absence of mechanisms for facilitating the school-to-work transition for younger workers. A related hypothesis is that the educational system has not adapted to provide the right set of skills demanded in the labor market, where skill-biased technological change has increased the demand for specialized skills consistent with rapidly improving technology.

76. Another important aspect of unemployment that has been stressed in various contexts is the increasing share of long-term unemployment in total unemployment. This has implications for the persistence of unemployment as well as for social welfare in a broader sense. The long-term unemployed face an attrition of their skills, making them less attractive to prospective employers. Further, the attachment of the long-term unemployed to the labor force tends to weaken over time.

²³This result should be viewed with some caution since the number of young college-educated labor force participants in the sample is quite small.

Youth Unemployment Rates

(In percent)

	Italy	North	Center	South
All				
Looking for first job	39.7	15.9	34.0	62.0
Unemployed	7.5	4.9	7.6	9.6
<High school				
Looking for first job	38.4	14.2	29.0	56.2
Unemployed	10.3	6.8	8.6	12.9
≥High school degree				
Looking for first job	41.2	17.3	38.0	71.6
Unemployed	4.4	3.3	6.8	4.3

77. The tabulation below shows the distribution of unemployment among labor force participants who have experienced only short spells of unemployment (less than 6 months) and those who have experienced at least one long spell of unemployment (6 months or more). Clearly, the contribution of the long-term unemployed to total unemployment is substantial, especially in the South, and indicates the possibility of substantial hysteresis in the unemployment rate.

Long-Term Unemployment Among Unemployed

(In percent)

Length of Unemployment spell	Italy	North	Center	South
<Six months	17.7	23.2	21.4	13.9
≥Six months	82.3	76.8	78.6	86.1
	100.0	100.0	100.0	100.0

78. To buttress the descriptive results discussed so far, some simple probit regressions were used for a more formal analysis of the determinants of employment and labor force participation. After narrowing the sample to individuals between the ages of 14 and 64 who

identified themselves as labor force participants, the employment dummy was regressed on a number of control variables. The results are reported in Table 5 (first panel). The first column contains the results for the full sample and the next three columns provide results broken down by region (and, therefore, excluding the regional dummies).

79. For the full sample, relative to employment probabilities in the North, estimated employment probabilities are lower in the Center and markedly lower in the South. An interesting result is that higher education (a college degree) improves employment probabilities in the South but not in the North. This may simply reflect the relative tightness of the labor market in the North, where there appears to be strong demand for workers of all skill levels. Employment probabilities are higher for males and for married persons. Employment probabilities for married females are not different from those for unmarried females.²⁴

80. Table 5 (second panel) also reports results of probit regressions that examine the determinants of labor force participation propensities. These propensities are significantly lower in the South than in the North or the Center. Higher levels of education are clearly associated with higher rates of entry into the labor force. Labor force participation propensities are higher for males than for females in the North and even more strongly so in the South. In addition, these propensities are much lower for married females than for single females. These last two results are indicative of problems in integrating women into the workforce. Thus, it appears that the limited availability of part-time and other flexible arrangements serves to dissuade women, especially married women, from entering the labor force.

E. Policy Implications and Recommendations

81. A number of labor market reforms were instituted during the early 1990s, with additional measures being taken in the context of the September 1996 tripartite agreement. These reforms, which are summarized in Table 6, indicate a recognition of many of the problems described in this chapter. Nevertheless, much remains to be done. Reductions in the constraints on hiring and firing workers, for instance, constitute an area where past reforms need to be strengthened. In addition, drawing on the empirical analysis presented above, this section outlines a few key areas where further change is required. Many of these reforms would result in improvements in the functioning of labor markets through changes in both labor supply and labor demand.

²⁴A further striking result (not shown here) is the substantially lower probability of employment for workers with a history of one or more long spells of unemployment. This is true in all regions and indicates the employability problems associated with long-term unemployment. The regressions containing this result are not reported here since this variable was available only for a limited sub-sample.

Education

82. A fundamental problem that affects the Italian labor market appears to be the low level of human capital, especially in terms of job-related skills, among entrants into the labor market. The large earnings premium for skilled workers, especially in the higher-wage and dynamic sectors of the economy, indicates that, as in other industrial economies, skill-biased technological change has increased the demand for skilled relative to unskilled labor. Having only a limited pool of high-skill workers could affect the long-term growth prospects of the economy by limiting the ability of industries to adopt and implement technological advances. Further, in a dynamic economy undergoing significant structural shifts, workers with high levels of human capital would be better positioned to adjust to such shifts.

83. Numerous studies using micro data from the United States have indicated that the returns to improvements in basic schooling are much higher than the returns to retraining older workers, both in terms of employment probabilities and lifetime earnings.²⁵ This might be less true in Italy, where there is a high unemployment rate even among prime-age labor force participants. Nevertheless, an increased focus on basic schooling is an important priority, especially from the perspective of longer-term growth.

School-to-work transitions

84. The high rate of youth unemployment and the relatively large fraction of young labor market participants looking for their first jobs indicates some basic problems with the prevailing job-matching mechanisms (examined further below). More fundamentally, however, these may also indicate a mismatch between the skills emphasized by the educational system and the skills desired by prospective employers. This suggests the need for re-examining the focus of the educational system and, from a shorter-term standpoint, providing more job search assistance for younger workers.

Flexible work arrangements

85. A salient aspect of the Italian labor market is the prevalence of low participation and employment rates for women. In many other industrialized countries, with the Netherlands and the United States being notable examples, increasing participation and employment rates for women at all skill levels over the last two decades have been a major contributor to increases in labor supply that have boosted overall employment growth despite subdued real wage growth.

86. As the evidence from household data indicated, married females have particularly low labor supply propensities in Italy. This suggests that easing of restrictions on and the active

²⁵See Heckman, Roselius, and Smith (1994) and Heckman, Lochner, Smith, and Taber (1997).

encouragement of temporary, part-time, and other flexible work arrangements could draw more women into the labor force.

87. Recent legislative measures have extended the use of fixed-term contracts (which had previously been allowed only for seasonal and certain other special categories of work) and have permitted the introduction of agency-intermediated temporary employment. Although the use of such contracts remains limited to date, these are steps in the right direction for increasing labor market flexibility.²⁶ These measures do not, however, obviate the need for more fundamental reforms that would tackle the onerous restrictions that remain on hiring and firing of workers more generally.²⁷ The prolonged judicial process involved in individual dismissals that are subsequently contested by workers, and the attendant uncertainties from the perspective of firms, has a deleterious effect on hiring decisions, and is also in need of reform.

Regional disparities

88. The regional segmentation of labor markets documented in this chapter remains a major source of inefficiency. The relatively poor infrastructure in the South and other structural problems in these regions have discouraged investment. Elimination of structural impediments—including inefficient public administration, inadequate infrastructure, and constraints on administering the rule of law—would be necessary for sustained improvements in attractiveness for new investment.²⁸

89. Another central concern is the lack of wage differentiation between the North and the South. As documented by numerous authors, productivity levels in the South are much lower in the North while, as shown in this chapter, the wage differentials across these regions are quite narrow.²⁹ To offset this discrepancy between productivity and wages, which imply

²⁶A recent report of the *Associazione per lo Sviluppo dell'Industria nel Mezzogiorno (SVIMEZ)* notes that, in 1997, part-time work accounted for about 6.4 percent of total employment in Italy (5.5 percent in the South), compared to about 15 percent in Germany and 24 percent in the United Kingdom.

²⁷See Demekas (1994) for a documentation of these regulations.

²⁸Castronuovo (1992) cites evidence that the profitability of investment (measured as the marginal ratio of capital to product) is lower in the South compared to the North.

²⁹For instance, Castronuovo (1992) estimates that, in the manufacturing sector, there was a gap of about 20 percent in labor productivity between the North and the South in 1989. Viviani and Vulpes (1995) estimate similar large inter-regional differentials in total factor productivity. Taylor and Bradley (1997) conclude that differentials in unit labor costs across

(continued...)

significantly higher unit labor costs in the South, the government has resorted to measures such as reductions in the social security contributions by employers in the South. These measures, however, have a fiscal dimension that is ultimately reflected in other distortionary revenue measures that affect aggregate employment levels. In any case, these measures are to be phased out under EU rules.

90. Recent initiatives to tackle regional disparities include special contracts for depressed areas, such as the *patti territoriali* and *contratti d'area*. These schemes are intended to involve collaborative efforts by all social partners at the local level in promoting investment and increasing employment creation. For instance, under these initiatives, unions have permitted temporary derogations from national wage agreements and have agreed to a greater flexibility of working arrangements. These contracts, although limited in number thus far, appear to have had some success in increasing economic activity in depressed areas. However, the fact that, for instance, derogations from national wage agreements are intended to be only temporary, may have limited the impact on investment decisions, which typically involve a longer planning horizon.

91. A more forceful measure would be to restructure wage bargaining arrangements in a way that would allow for regional wage differentiation in line with productivity differentials in a more durable manner. This would enhance the incentives for inter-regional labor mobility and would simultaneously reduce regional imbalances in the demand for labor by inducing investment flows into high-unemployment areas.

Labor mobility

92. More generally, inter-sectoral and inter-regional labor mobility remain quite low in Italy, reducing the ability of the economy to respond to region- and industry-specific shocks without persistent effects on employment and unemployment.³⁰ A key deterrent to labor mobility is the lack of wage differentiation across sectors and, as noted above, across regions. Allowing for wage contracts that more accurately reflect productivity differentials would enable a more efficient allocation of labor.

93. Another constraint on labor mobility appears to arise from the ineffectiveness of formal job-matching through public employment agencies, which have enjoyed a long-standing

²⁹(...continued)

Italian regions are statistically and economically significant determinants of both the levels and persistence of regional disparities in unemployment rates.

³⁰Attanasio and Padoa-Schioppa (1991) and Faini, Galli, Gennari, and Rossi (1997) document the low and declining levels of inter-regional migration, although these two sets of authors reach different conclusions about the role of income support mechanisms and other institutional factors in influencing such migration.

monopoly.³¹ These agencies apparently provide little assistance in job matching across regions. Further, they have been oriented more toward collecting employment statistics rather than assisting in employment intermediation. Allowing for an expanded role for private sector employment agencies, and fostering a greater role for both private and public sector agencies in providing cross-regional job listings, would be important steps in improving job matching.

94. Legislation to permit the operation of private employment agencies, as mandated by an EU Court of Justice ruling in December 1997, has been prepared by the government but remains to be enacted into law. A point of contention has been the span of time that should be given to public employment agencies to "adjust" to increased competition. Rapid enactment of this legislation and allowing for unfettered competition in providing employment intermediation would help increase the efficiency of job matching.

Other aspects of labor market policy

95. A number of other measures, such as reductions in the regulations governing hiring and firing of employees by firms, are equally important. The 1996 tripartite agreement indicates a clear recognition of these issues by the key social partners, although much remains to be done in terms of the promulgation and effective implementation of measures to address these issues. Certain other measures such as mandated reductions in the work week have, unfortunately, gained currency in recent public discussions. These measures are of dubious value in reducing unemployment and are unlikely to have a significant impact in addressing labor market inefficiencies. Further, reductions in weekly working hours by fiat, rather than as the outcome of a negotiation process between workers and employers, could lead to sub-optimal outcomes in wage and employment bargaining. Related measures such as employment subsidies would need to be carefully targeted to be effective and, even if so, are unlikely to have significant or long-lasting effects on employment creation.

A broad-based approach

96. An important consideration in addressing labor market problems is that a tentative and limited approach to labor market reforms is unlikely to yield significant results. In fact, the lack of credibility of such policies could, as suggested by Bertola and Ichino (1996), have adverse short-run effects on unemployment. Given the need to generate credibility for these reforms, and taking into account potential policy complementarities among various policy

³¹The *SVIMEZ* report for 1997 indicates that only about 7.5 percent of new job placements in Italy were arranged by (public) employment agencies. This proportion is substantially lower than in most other European countries, many of which permit the operation of private employment agencies. These include England (about 33 percent), Germany (37 percent), and the Netherlands (63 percent). Faini, Galli, Gennari, and Rossi (1997) cite evidence that informal networks (i.e., family and friends) play a far more important role in job matching in Italy, especially in the South, than in other countries.

measures, suggests that it is essential to adopt fundamental and broad-based rather than piecemeal reforms.

97. Other aspects of macroeconomic policies also have a role to play in improving labor market performance. For instance, the large overall tax burden on labor incomes and the tax wedge between production and consumption wages are likely to have significant negative effects on labor supply and labor demand, respectively. Hence, the broader issue of reducing government expenditures and the associated tax burden that is used to finance these expenditures has implications for labor market outcomes as well. Further, reducing regulations and constraints on competition in product markets often tend to have positive spillover effects on labor market outcomes.³² Recognizing and exploiting these policy complementarities could be crucial for improving the functioning of the labor market and, more generally, for the longer-term growth prospects of the Italian economy.

³²To cite one example, it has been suggested by some observers that restrictions on shop opening hours may have hitherto limited the diffusion of part-time contracts in Italy. Recent measures to relax such restrictions in the retail sector could, therefore, have spillover effects on the demand for part-time labor and could encourage more women to enter the labor force.

Table 1. Inflation and Wage Dynamics Under the New Wage Bargaining Framework:
Evidence from Major Wage Contracts.

(Total increase over duration of contract, in percent)

Sector	First Round				Second Round			
	Effective Date	Target Inflation	Nominal Wage Increase	Actual Inflation	Effective Date	Target Inflation	Nominal Wage Increase	Actual Inflation
Paper products	Jul. 93	7.3	7.5	8.7	Jul. 95	7.4	7.9	7.9
Chemicals	Jan. 94	6.1	7.9	9.5	Jan. 96	6.6	8.0	5.8
Petroleum	Jan. 94	6.1	6.7	9.5	Jan. 96	6.6	7.9	5.8
Banking	Jan. 94	6.1	9.1	9.5	Jan. 96	6.6	7.7	5.8
Insurance	Jan. 94	6.1	5.9	9.5	Jan. 96	6.6	7.9	5.8
Metal workers	Jul. 94	5.3	7.6	9.8	Jul. 96	4.6	8.6	
Tourism	Jul. 94	5.3	7.2	9.8	Jul. 96	6.1	9.2	
Publishing	Oct. 94	5.0	6.1	9.8	Oct. 96	5.5	7.5	
Trade	Jan. 95	4.6	8.3	9.5	Jan. 97	5.1	9.1	
Food	Jun. 95	7.6	7.0	8.3	Jun. 97	4.0	4.5	
Textiles	Jul. 95	7.5	8.6	7.9	Jul. 97	4.7	5.3	

Source: ISCO.

Notes: Negotiations on certain contracts that expired in 1996, such as the one for metal workers, were completed in 1997, but were made effective retroactively.

Table 2. Italy: Real Wage Growth

	1990	1991	1992	1993	1994	1995	1996	1997
General	0.98	2.61	-0.03	-1.65	-2.03	-2.12	0.14	2.16
Agriculture	-1.41	-0.52	5.49	0.29	-3.43	-3.21	-1.77	-0.88
Industry	0.30	3.00	1.04	-0.94	-0.73	-1.96	-0.55	1.67
Construction	5.02	3.84	0.73	-3.27	0.15	-3.27	-0.92	0.88
Energy	2.74	3.88	0.49	-0.13	0.41	-0.84	-0.39	2.77
Manufacturing	-0.91	2.85	1.07	-0.40	-0.93	-1.65	-0.51	1.78
Food, beverages and tobacco	-0.42	0.57	2.49	1.15	0.89	-2.65	-0.91	0.90
Chemicals	0.12	2.00	2.06	-1.31	-1.07	-0.48	1.29	0.87
Other commercial products	-0.41	3.40	0.73	-0.20	-0.97	-1.13	-0.13	1.69
Metals, engineering equipment	-1.63	4.30	0.55	-0.74	-1.50	-1.04	-0.52	2.03
Textiles	-0.61	1.11	1.93	-0.55	-0.33	-3.04	-0.18	1.43
Services								
Financial services	1.10	0.94	0.96	-2.27	-3.70	1.83	1.90	1.60
Transport and communication	0.93	1.80	0.30	-1.38	-3.00	-1.13	-1.11	-0.76
Public Administration	3.89	2.73	-2.66	-3.50	-3.63	-3.59	1.36	4.25
CPI inflation	6.24	6.10	5.04	4.36	3.97	5.07	3.90	2.06

Source: Bank of Italy's Household Survey, 1995, and authors' calculations.

Notes: Annual growth rates of real wages were computed using indexes of minimum contractual wages per employee (excluding family allowances) for all workers. The aggregate CPI was used as the price deflator. The figures for 1997 are based on data for the first two quarters of 1997 relative to the first two quarters of 1996.

Table 3. Italy: Wage Regressions

(Dependent variable: Log net earnings)

	All	Agriculture	Manufacturing	Construction	Trade	Transport	Finance	Real Estate	Personal Services	Government
Center	-0.08* (0.02)	0.28 (0.20)	-0.07* (0.03)	-0.18 (0.09)	-0.17* (0.06)	0.08 (0.10)	-0.02 (0.07)	-0.20 (0.10)	-0.19* (0.08)	-0.04 (0.02)
South	-0.18* (0.02)	-0.49* (0.15)	-0.16* (0.03)	-0.40* (0.07)	-0.28* (0.05)	-0.15 (0.09)	-0.11 (0.07)	-0.28* (0.10)	-0.25* (0.08)	-0.09* (0.02)
High school	0.19* (0.01)	0.46* (0.16)	0.18* (0.02)	0.30* (0.08)	0.10* (0.05)	0.23* (0.08)	0.11 (0.10)	-0.00 (0.11)	0.17* (0.08)	0.17* (0.02)
College	0.30* (0.02)	-0.52 (0.59)	0.43* (0.06)	0.22 (0.27)	0.52* (0.14)	0.25 (0.17)	0.46* (0.11)	-0.05 (0.16)	-0.15 (0.22)	0.23* (0.03)
Male	0.28* (0.01)	0.54* (0.12)	0.26* (0.02)	0.21 (0.14)	0.28* (0.04)	0.51* (0.11)	0.17* (0.07)	0.24* (0.09)	0.54* (0.07)	0.23* (0.02)
Fsize 2 (20-99)	0.16* (0.02)	0.12 (0.16)	0.12* (0.03)	0.23* (0.07)	0.15* (0.06)	0.03 (0.12)	0.25* (0.11)	0.26* (0.11)	0.28* (0.09)	
Fsize 3 (100-499)	0.24* (0.03)	0.54* (0.22)	0.20* (0.03)	0.30* (0.13)	0.19* (0.10)	-0.21 (0.12)	0.46* (0.09)	0.47* (0.18)	0.23* (0.11)	
Fsize 4 (>500)	0.30* (0.02)	0.29 (0.59)	0.30* (0.03)	0.28* (0.14)	0.15* (0.08)	0.31* (0.10)	0.32* (0.07)	0.41* (0.16)	0.28* (0.13)	
Relative premium		-0.60* (0.04)		-0.16* (0.03)	-0.03 (0.02)	0.06 (0.04)	0.28* (0.04)	0.00 (0.04)	-0.24* (0.03)	0.22* (0.02)
Adjusted R-squared	0.38	0.31	0.34	0.23	0.26	0.39	0.50	0.37	0.28	0.23
Nobs.	6,222	180	1,851	351	670	190	225	179	300	2,276

Source: Bank of Italy's Household Survey, 1995, and authors' calculations.

Notes: The firm size dummy variables are based on the total number of registered employees (indicated in parentheses) in the establishment. The relative premium is the estimated average sectoral earnings premium relative to the manufacturing sector, expressed as a percentage of average earnings in manufacturing. These premia were computed from the coefficients on the industry dummies in the regression with all observations (column 1). The additional controls included in the regressions are Experience and its square, and the following dummy variables: MARRIED, URBAN, INVALID, and SICK (persons with chronic diseases). An asterisk indicates statistical significance at the 5 percent level.

Table 4. Italy: Wage Regressions

(Dependent variable: Log net hourly earnings)

	All	Agriculture	Manufacturing	Construction	Trade	Transport	Finance	Real Estate	Personal Services	Government
Center	-0.06* (0.01)	-0.07 (0.16)	-0.05* (0.02)	-0.10 (0.06)	-0.07 (0.04)	0.07 (0.07)	-0.10* (0.05)	-0.19* (0.09)	-0.13 (0.07)	-0.03 (0.02)
South	-0.12* (0.01)	-0.31* (0.12)	-0.15* (0.02)	-0.14* (0.05)	-0.33* (0.03)	-0.01 (0.06)	-0.07 (0.05)	-0.37* (0.09)	-0.27* (0.06)	-0.01 (0.02)
High school	0.18* (0.01)	0.28* (0.12)	0.17* (0.01)	0.11* (0.05)	0.07* (0.03)	0.31* (0.06)	0.19* (0.06)	0.01 (0.10)	0.06 (0.06)	0.22* (0.02)
College	0.46* (0.02)	-0.10 (0.46)	0.40* (0.04)	0.65* (0.17)	0.39* (0.09)	0.34* (0.12)	0.43* (0.07)	0.09 (0.14)	0.38 (0.21)	0.51* (0.02)
Male	0.09* (0.01)	0.12 (0.09)	0.12* (0.02)	-0.12 (0.09)	0.07* (0.03)	0.21* (0.08)	0.14* (0.05)	0.14 (0.08)	0.09 (0.06)	0.06* (0.01)
Fsize2 (20-99)	0.11* (0.02)	-0.07 (0.13)	0.10* (0.02)	0.02 (0.05)	0.16* (0.04)	0.04 (0.09)	0.20* (0.08)	0.26* (0.10)	0.17* (0.07)	
Fsize3 (100-499)	0.19* (0.02)	0.19 (0.17)	0.17* (0.02)	0.07 (0.08)	0.26* (0.06)	0.12 (0.09)	0.34* (0.07)	0.31 (0.16)	0.24* (0.09)	
Fsize4 (≥500)	0.27* (0.02)	0.41 (0.46)	0.27* (0.02)	0.12 (0.09)	0.29* (0.05)	0.27* (0.07)	0.22* (0.05)	0.32* (0.14)	0.33* (0.11)	
Relative premium		-0.05 (0.03)		0.01 (0.02)	-0.01 (0.02)	0.09* (0.03)	0.22* (0.03)	-0.01 (0.03)	-0.05* (0.02)	0.31* (0.02)
Adjusted R-squared	0.44	0.08	0.41	0.22	0.35	0.32	0.57	0.39	0.17	0.30
Nobs.	6,201	180	1,849	351	667	189	224	178	297	2,266

Source: Bank of Italy's Household Survey, 1995, and authors' calculations.

Notes: The firm size dummy variables are based on the total number of registered employees (indicated in parentheses) in the establishment. The relative premium is the estimated average sectoral hourly earnings premium relative to the manufacturing sector, expressed as a percentage of average hourly earnings in manufacturing. These premia were computed from the coefficients on the industry dummies in the regression with all observations (column 1). The additional controls included in the regressions are Experience and its square, and the following dummy variables: MARRIED, URBAN, INVALID, and SICK (persons with chronic diseases). An asterisk indicates statistical significance at the 5 percent level.

Table 5. Italy: Probit Estimates

Dependent Variable	Employment			Labor Force Participation				
	Italy	North	Center	South	Italy	North	Center	South
Center	-0.38* (0.05)				-0.03 (0.03)			
South	-0.96* (0.04)				-0.13* (0.03)			
High school	0.19* (0.04)	0.14* (0.07)	0.12 (0.08)	0.23* (0.06)	0.14* (0.03)	0.16* (0.04)	0.12* (0.06)	0.12* (0.04)
College degree	0.15* (0.06)	-0.05 (0.10)	0.08 (0.15)	0.31* (0.09)	0.68* (0.05)	0.52* (0.08)	0.53* (0.12)	0.96* (0.09)
Male	0.21* (0.05)	0.37* (0.08)	0.21* (0.10)	0.13 (0.07)	0.26* (0.03)	0.12* (0.06)	0.15* (0.08)	0.42* (0.05)
Married	0.49* (0.05)	0.35* (0.10)	0.51* (0.13)	0.55* (0.08)	0.66* (0.05)	0.55* (0.07)	0.67* (0.10)	0.78* (0.08)
Married* Female	0.13 (0.07)	-0.20 (0.13)	-0.02 (0.16)	0.21 (0.11)	-1.42* (0.05)	-1.28* (0.08)	-1.53* (0.11)	-1.59* (0.08)
Nobs.	9,971	4,254	2,072	3,645	16,971	6,926	3,514	6,531

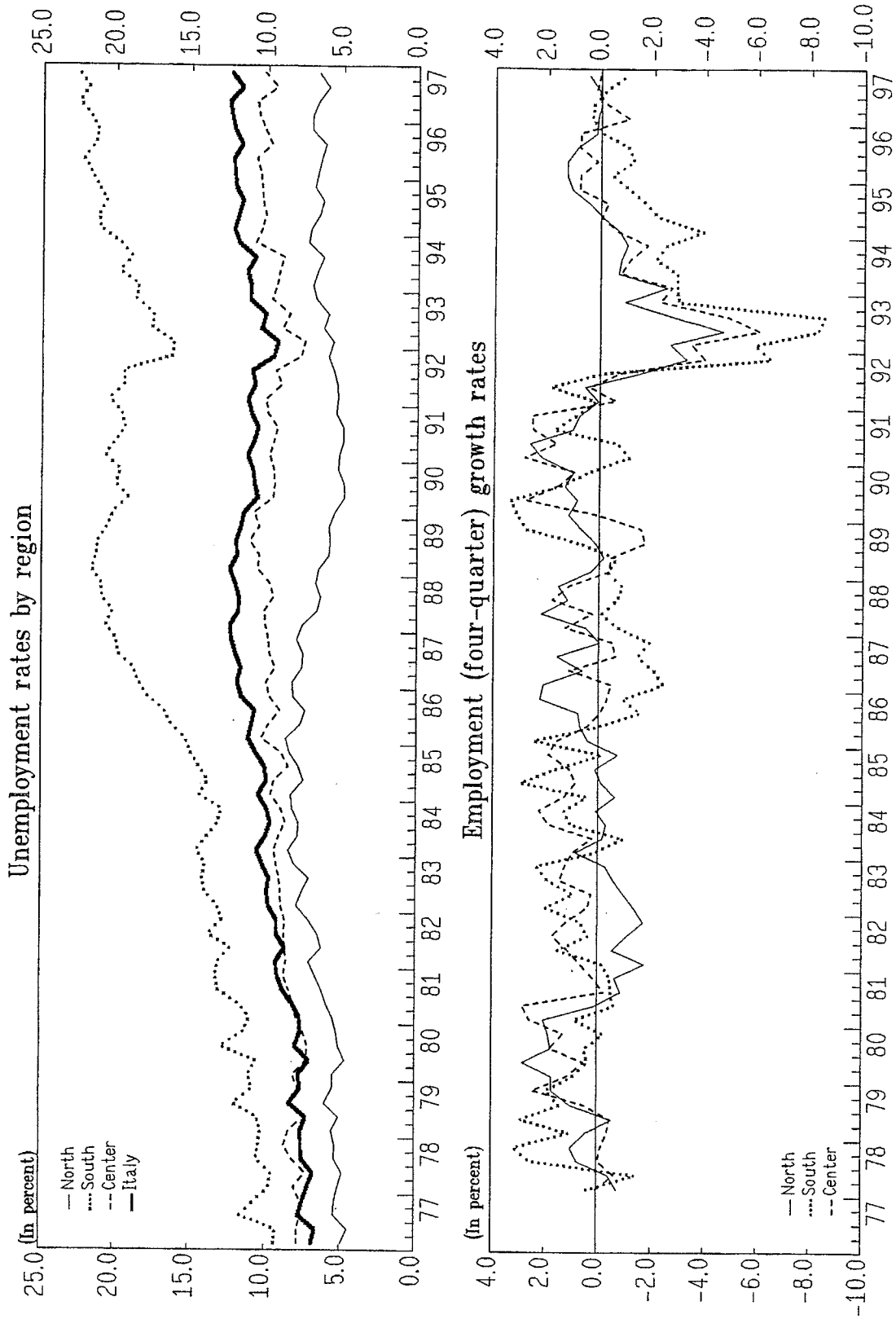
Source: Bank of Italy's Household Survey, 1995, and authors' calculations.

Notes: Additional controls included in the regressions are: Experience and its square, and the following dummy variables: URBAN, INVALID, and SICK (persons with chronic diseases). An asterisk indicates statistical significance at the 5 percent level.

Table 6. Italy: Improving Labor Market Performance

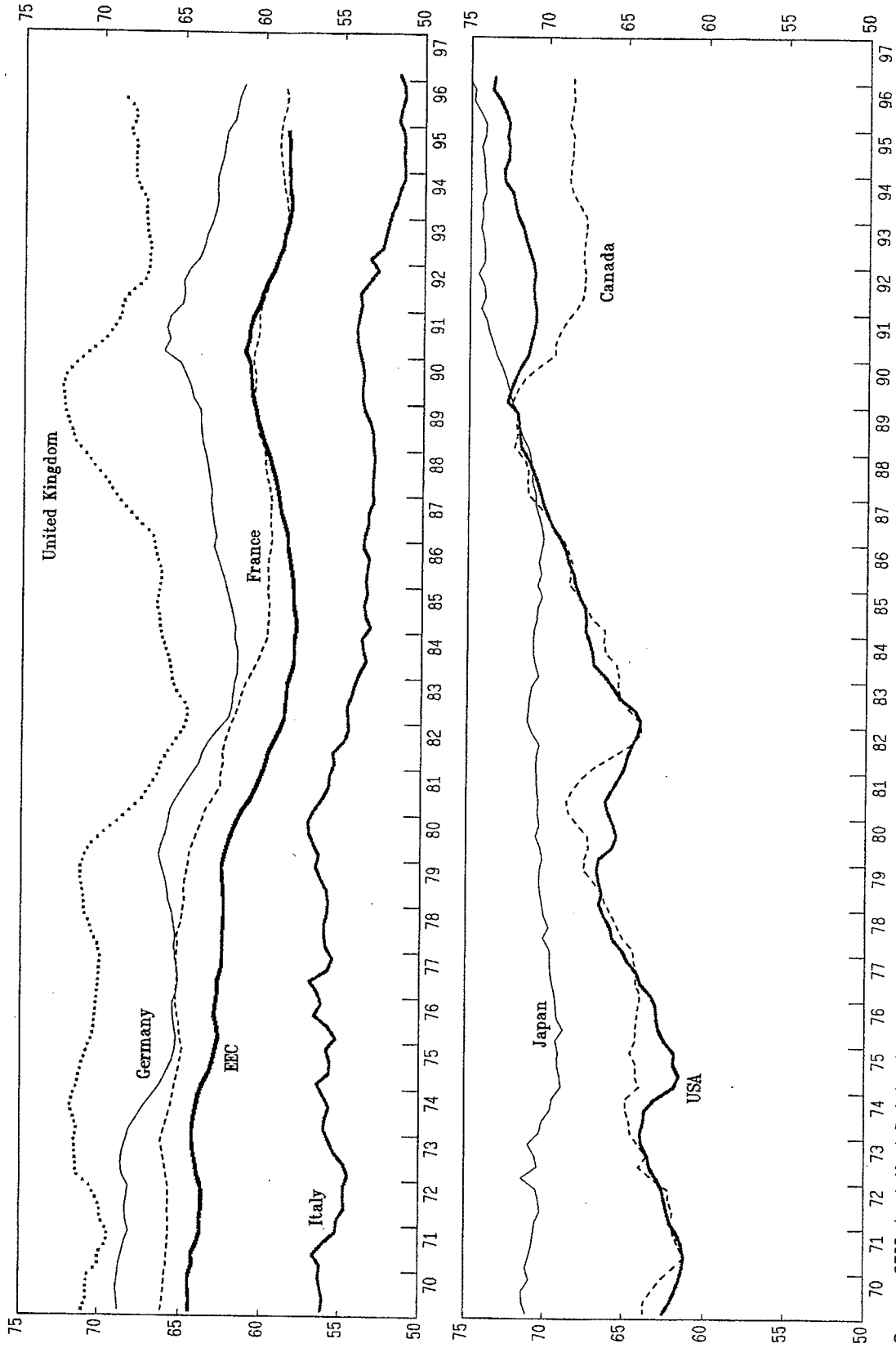
Area	Measures Taken	Results	Recommended Further Action
Nontraditional work contracts			
Part-time	Adjustment in social security contributions and pension provisions	Still comparatively low diffusion of nontraditional work contracts	Ease remaining restrictions; seek means to draw more women in labor force
Fixed-term	Discontinued automatic transformation into indefinite contracts	Increase in share of total employment, to 7 percent (from 5 percent in 1992)	
Temporary work (through agencies)	Introduced for first time in January 1998	Increase in share of salaried employment, to 8.8 percent (from some 7 percent in 1992)	
Wage differentiation	Flexibility sought through area contracts for depressed areas (<i>patti territoriali</i> ; <i>contratti d'area</i>)	Underway	Re-examine extent of remaining "red tape" and exclusion of lesser qualified jobs
Hiring and firing costs and restrictions	Reduced through series of measures in 1990s Possibility for greater public sector job redeployment under <i>Bassanini Law</i>	Limited number of contracts concluded; insufficient for required degree of differentiation	Seek broader derogation from nationwide applicability of sectoral contractual wage minima
Job placement	Public employment agency monopoly to end, but 12-18 month transition period before private agencies allowed	Employer surveys show lesser importance of such restrictions as a hurdle to job creation. Greater responsiveness of employment in last downturn, but still marked hesitancy to hire in upturn	Address significant uncertainty (and length) of judicial process for individual dismissals; further reduce employment protection (notably in banking and public sector); implement redeployment in public sector
Unemployment insurance and related benefits	Introduced new "mobility" benefits for workers affected by collective dismissals	Family/personal network remains prevalent way to find jobs; public employment agencies largely ineffective	Accelerate transition period to end of public monopoly; strengthen nationwide matching and job-search assistance, especially for young
Education and school-to-work transition	Increase in compulsory schooling; wide use of apprenticeships (<i>contratti formazione-lavoro</i>)	Replacement ratio and duration of ordinary unemployment benefit remains low; but "mobility" benefits quite generous, although limited to subset of workers; for others, ad hoc recourse to early retirement schemes and improper use of "disability" pensions	Re-examine income support for the unemployed in light of <i>Onofri Commission</i> report; unify various programs; link benefits to active job search and shorten their duration
Tax and contribution rates	1997 tax changes	Entrants' level of human capital still low; limited pool of high-skill workers; large proportion of first-job seekers; apprenticeship contracts used essentially to allow lower entry wage, with limited actual training content	Increase focus on improving basic schooling; re-orient educational system toward useful job skills; strengthen training content of apprenticeship contracts; provide more job search assistance for younger workers
		Some reduction of marginal tax on labor as from January 1998 through introduction of IRAP	Reduce still high tax wedge further; partly balance cuts in taxes on labor with increases in indirect taxation

Figure 1
Italy



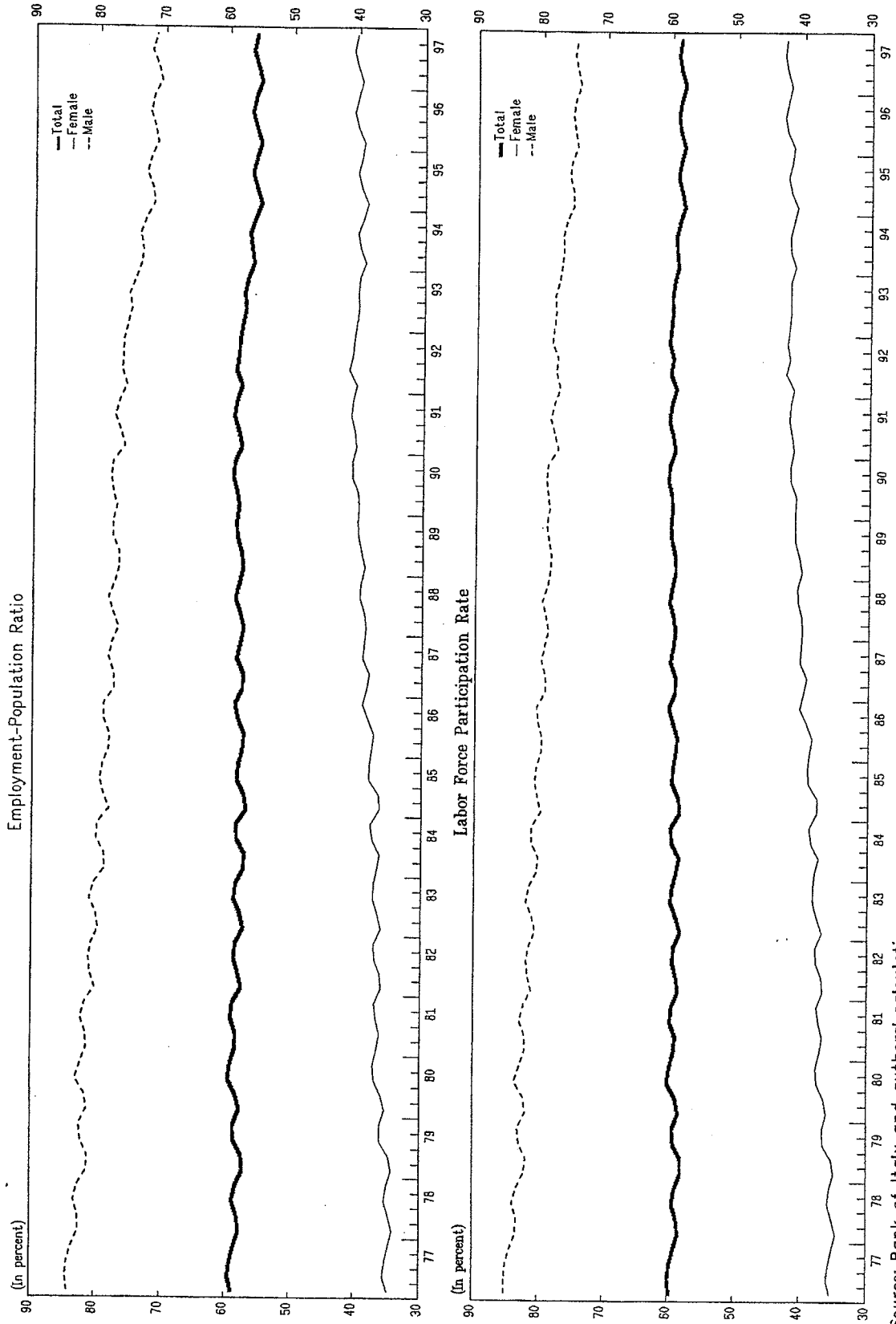
Source: Bank of Italy and authors' calculations.

Figure 2
Italy
Employment-Population Ratios: A Cross-Country Perspective
(in percent)



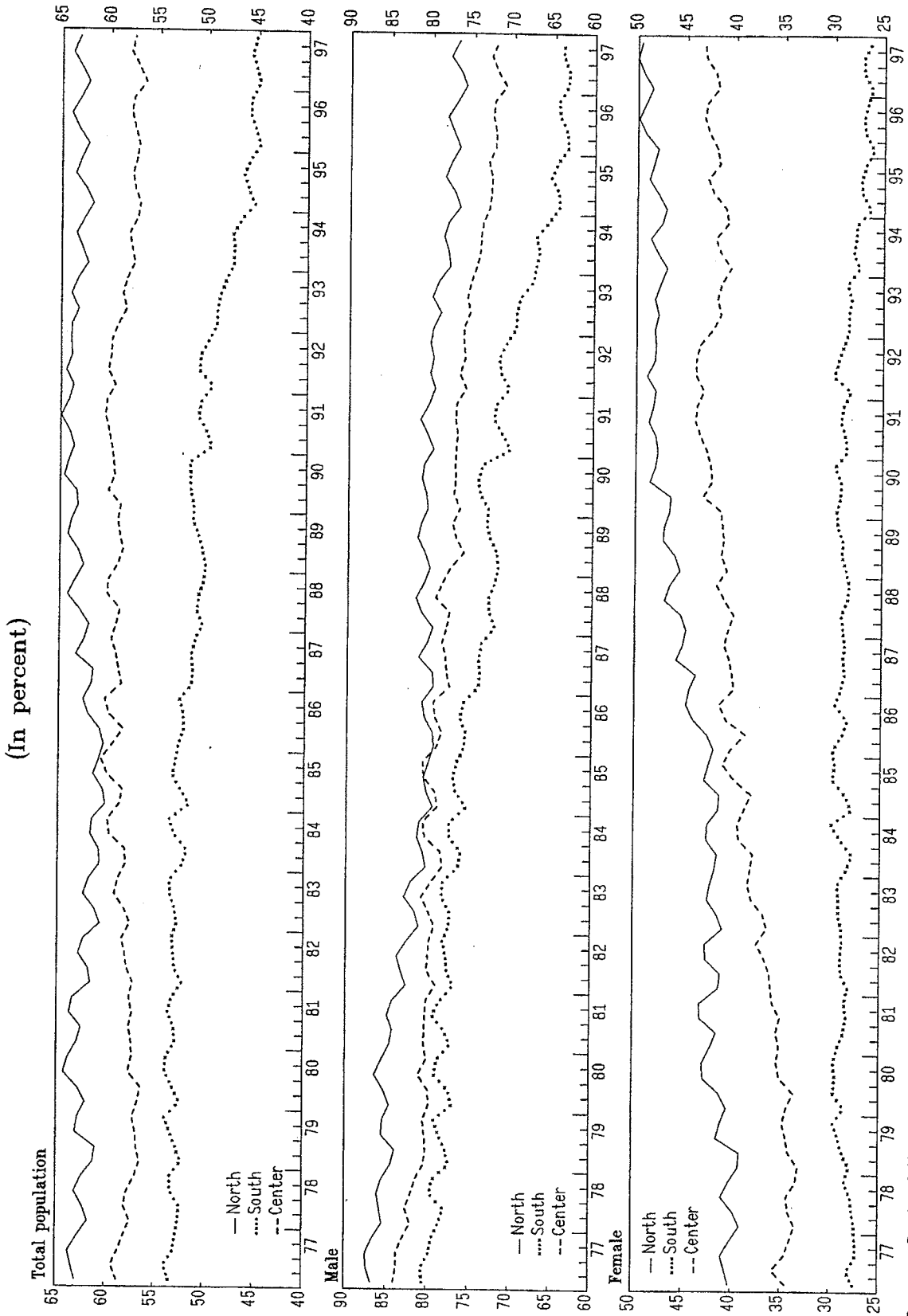
Source: OECD Analytical Databank.
Notes: The employment-population ratio is the ratio (multiplied by 100) of total civilian employment to the total civilian population between the ages of 15 and 65.

Figure 3
Italy
Labor Force Status by Gender



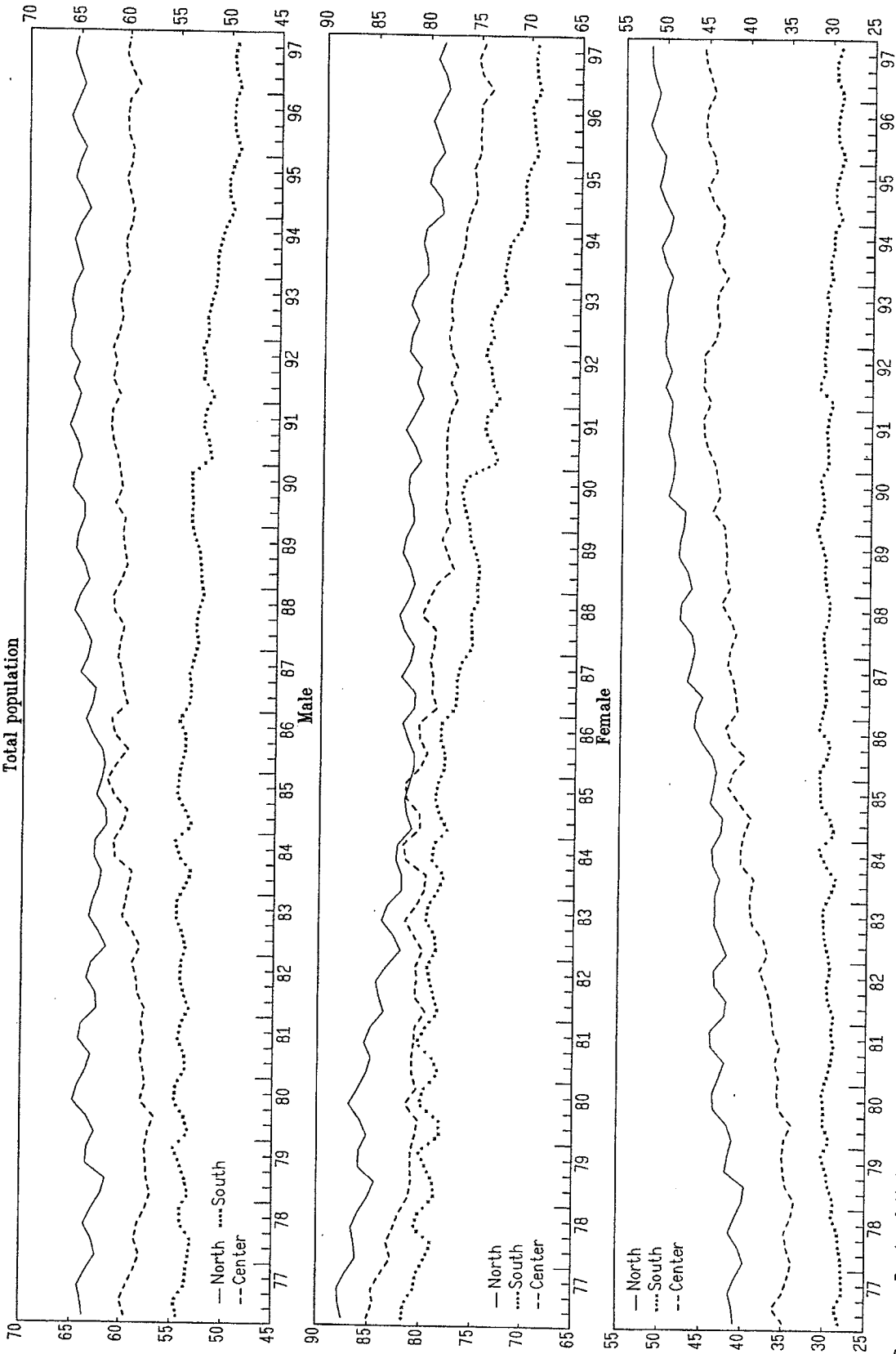
Source: Bank of Italy and authors' calculations.

Figure 4
Italy
Employment-Population Ratios by Region
(In percent)



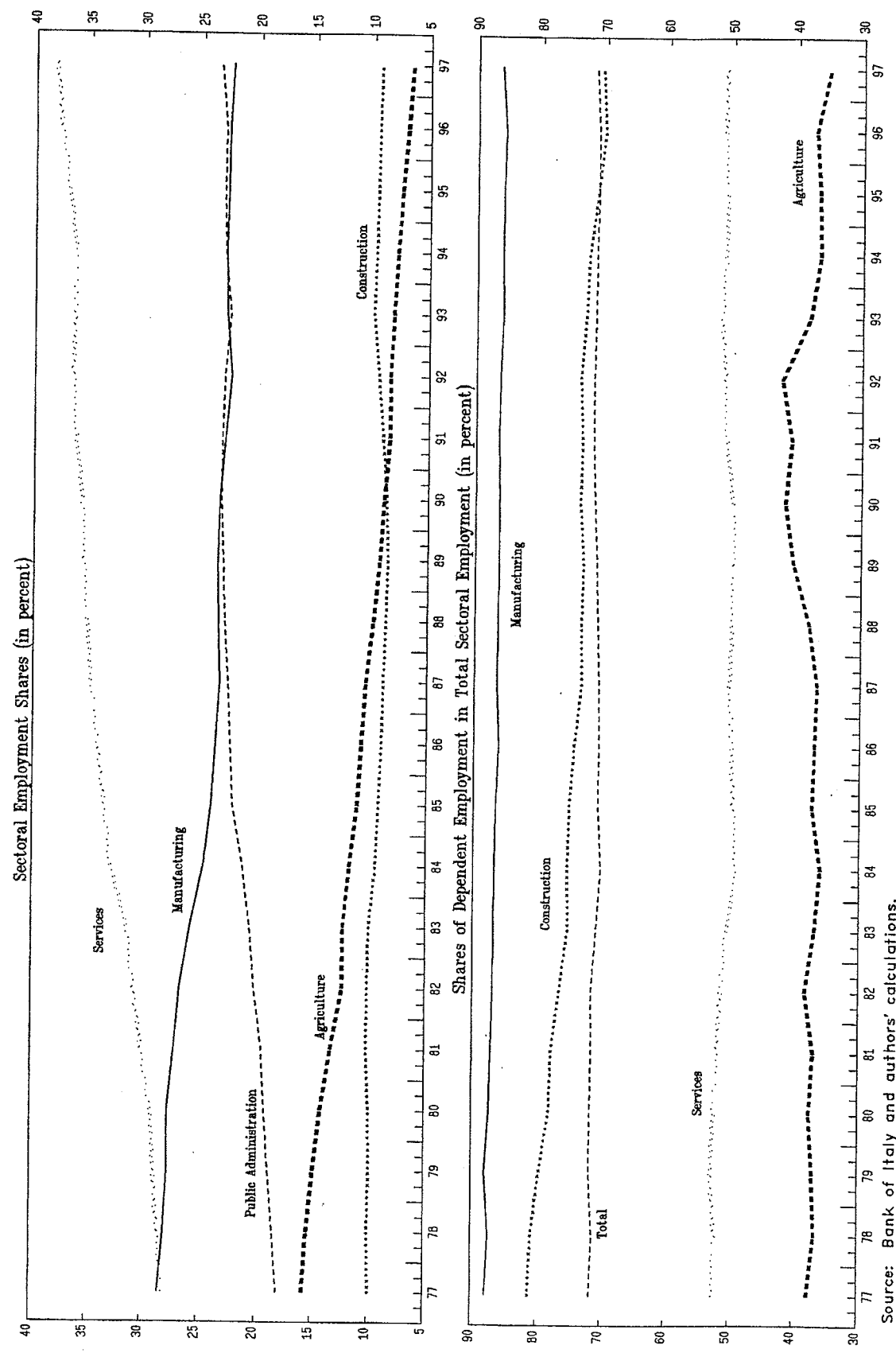
Source: Bank of Italy and authors' calculations.

Figure 5
Italy
Labor Force Participation Rates by Region
(In percent)
Total population



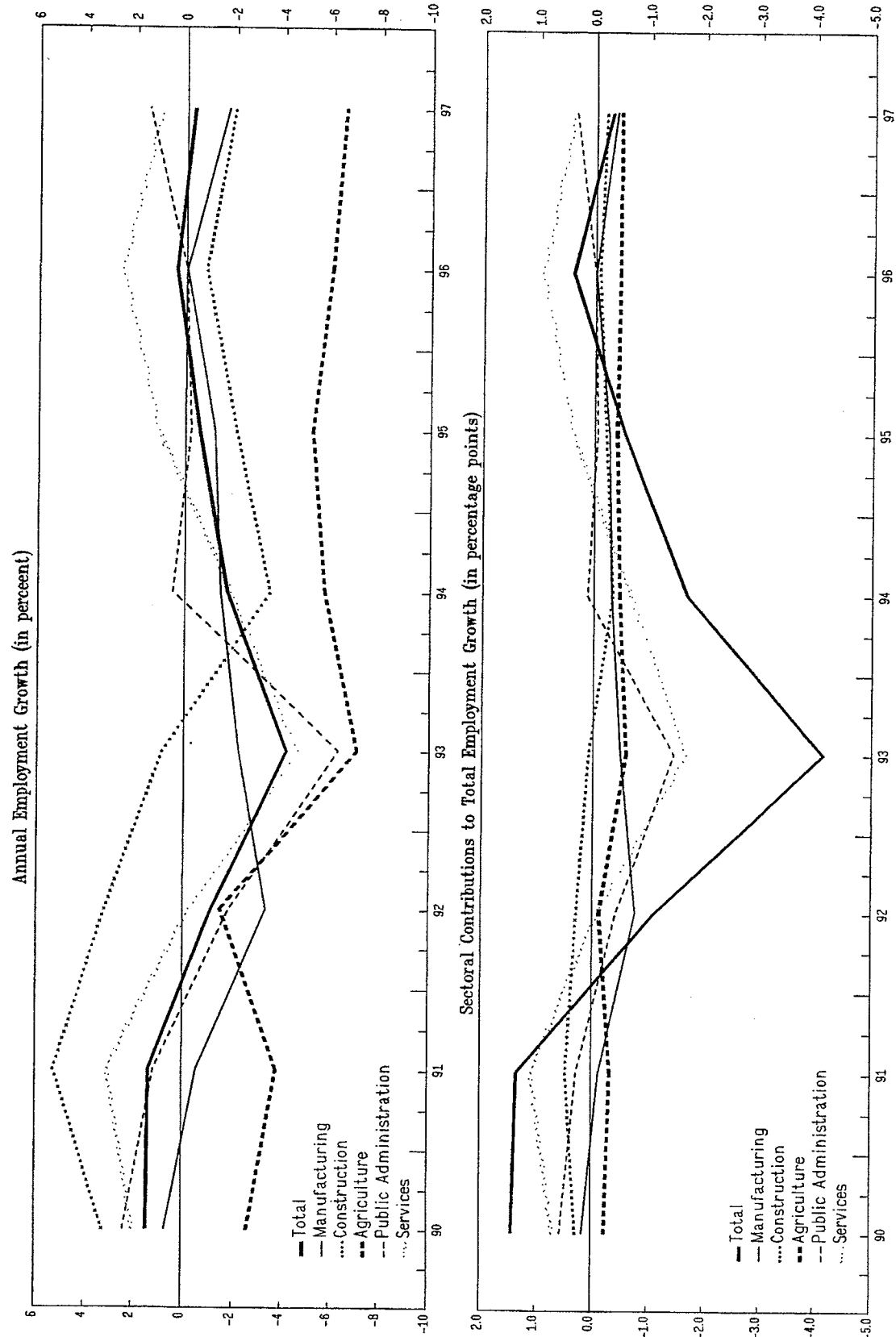
Source: Bank of Italy and authors' calculations.

Figure 6
Italy: Sectoral Employment Patterns



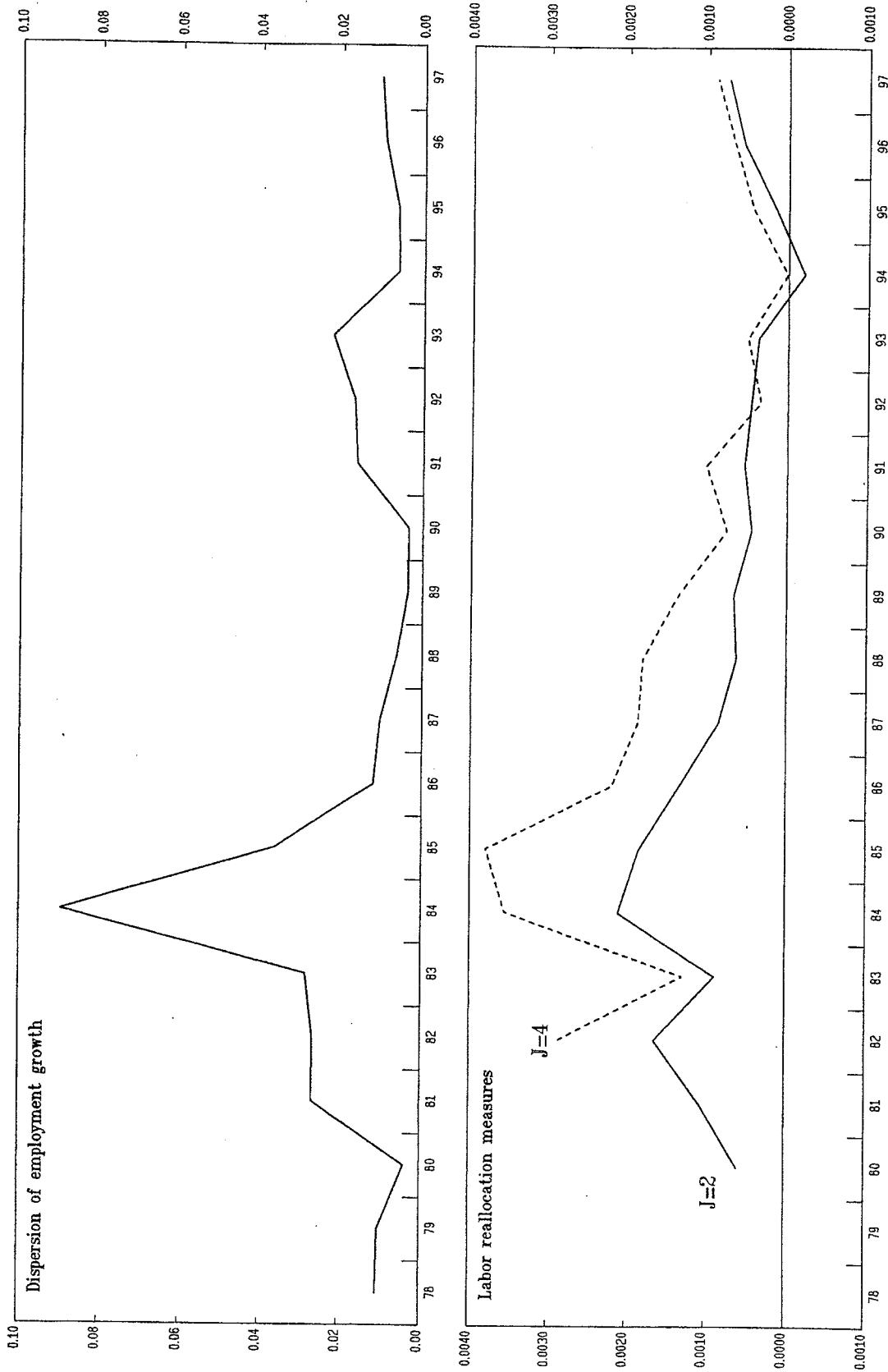
Source: Bank of Italy and authors' calculations.

Figure 7
Italy: Sectoral Employment growth



Source: Bank of Italy and authors' calculations.
Note: The sectoral contributions sum up to total annual employment growth in each year.

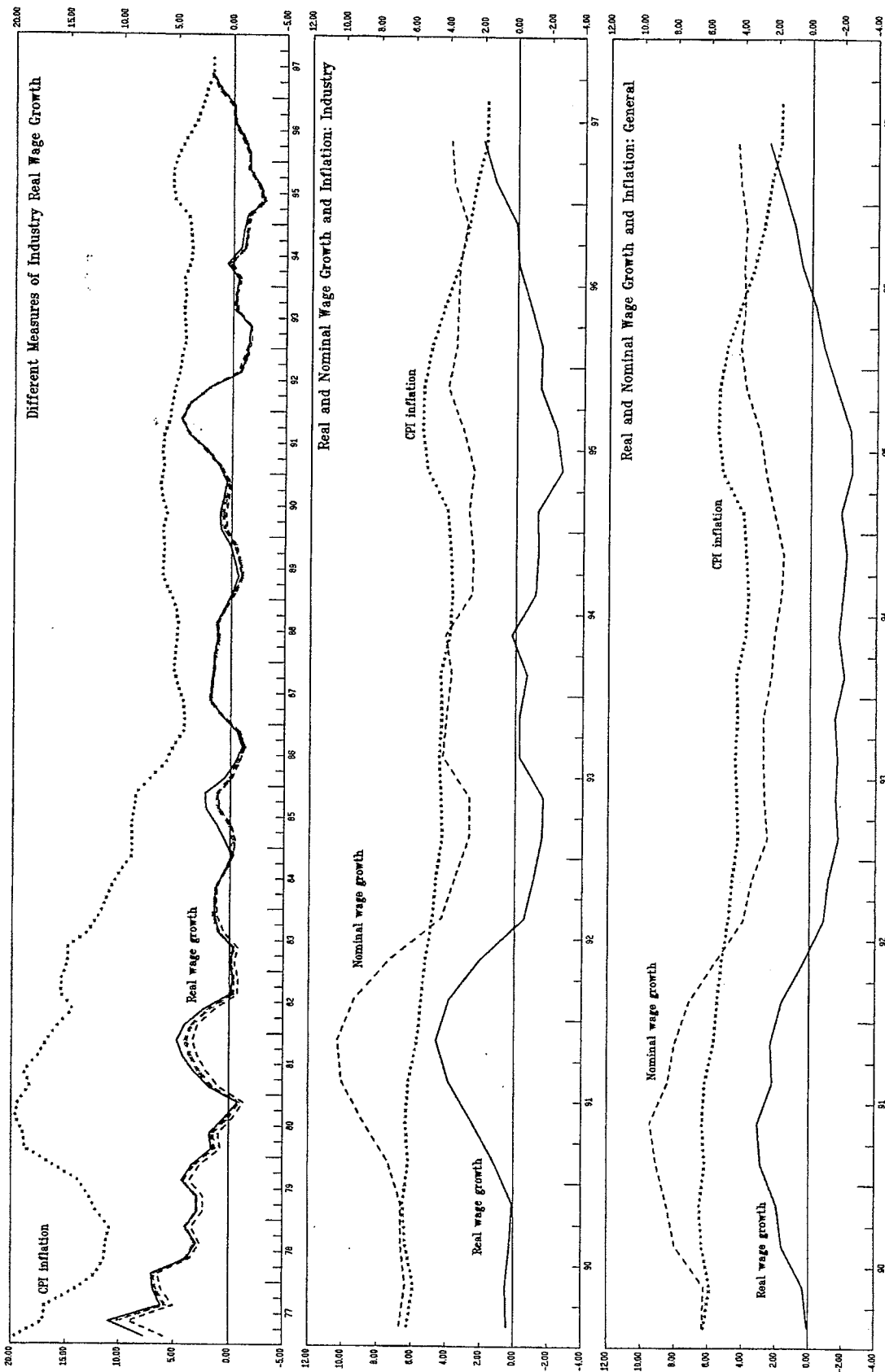
Figure 8
Italy
Measures of Sectoral Labor Reallocation



Source: Bank of Italy and authors' calculations.
Note: See the text for details on computations of these measures.

Figure 9
Italy

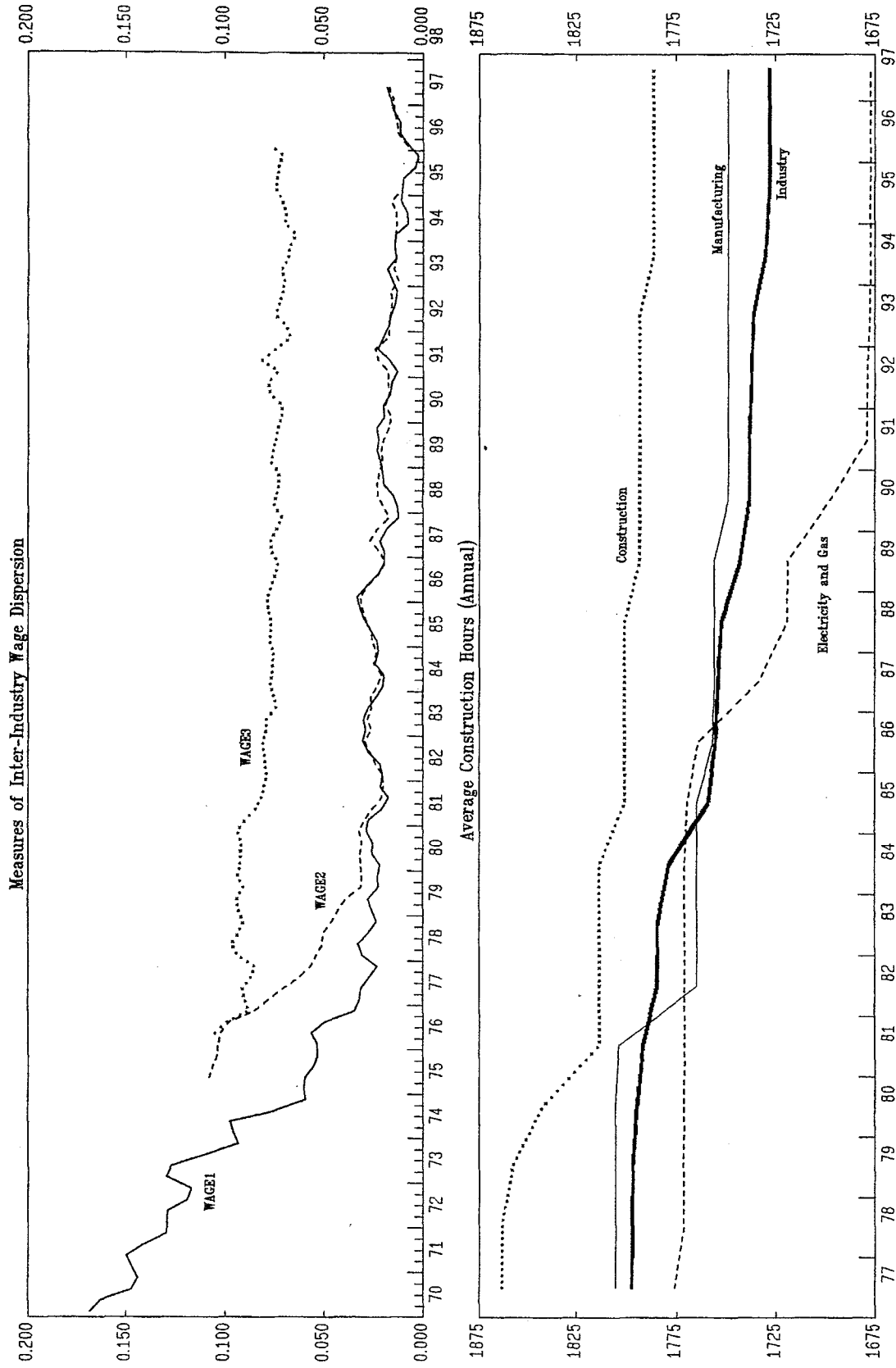
Real Wage Growth (four-quarter growth rates, in percent)



Source: Bank of Italy and authors' calculations.
Notes: The wage indexes for industry used in the top panel are (i) minimum contractual hourly wage for laborers, (ii) minimum contractual wage (weekly) for laborers, and (iii) minimum contractual wage per employee for all workers. This third measure is used for the lower two panels.

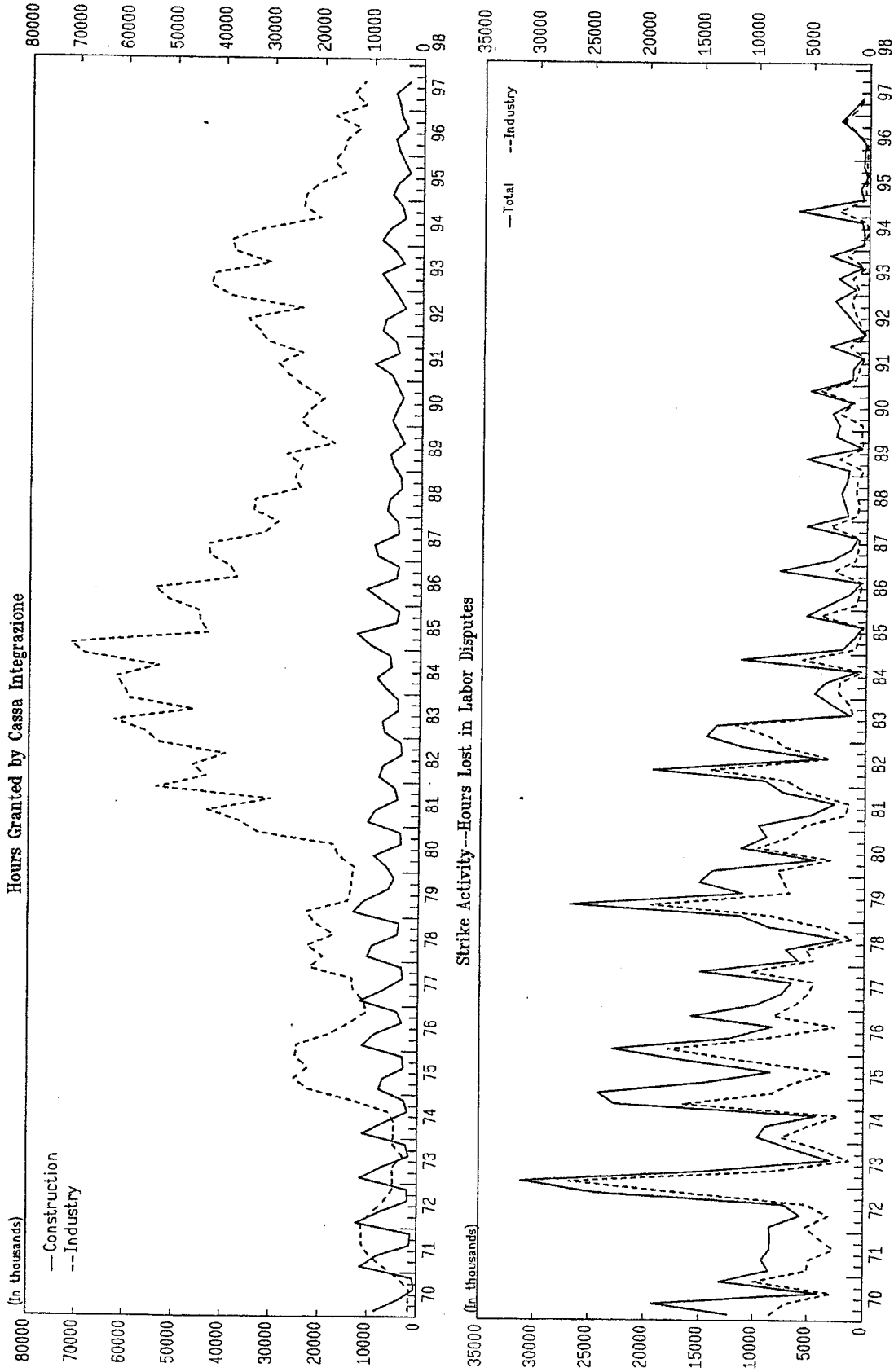
Figure 10
Italy

Wages and Hours



Source: Bank of Italy and authors' calculations.
 Notes: The coefficients of variation in the top panel are based on the logarithms of three alternative indexes of wages in eleven industries: (i) minimum contractual hourly wages for laborers (WAGE1); (ii) minimum contractual wage per employee (WAGE2); and (iii) minimum contractual wage for laborers (WAGE3).

Figure 11
Italy
Trends in Labor Disputes and Hours under the Cassa Integrazione



Source: Bank of Italy and authors' calculations.

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II. THE ITALIAN SOCIAL PROTECTION SYSTEM: "THE POVERTY OF WELFARE"³³

A. Introduction

98. There has, in recent years, been a growing consensus that public expenditure on social protection in Italy suffers from severe shortcomings. These were summarized in a report issued in February 1997 by a special commission on social expenditure, known as the *Commissione Onofri*.³⁴ The report recognized the system to be inadequately targeted, fragmented, and excessively complex. In particular, it found it to be inequitably skewed toward the elderly and "insiders." Excess expenditure on pensions overprotects retirees, and other support mechanisms are largely limited to present or past participants in the regular labor force (notably in large industrial firms). The system thus fails in its primary task of providing an effective safety net for those most in need, in particular for those who never joined the formal labor market, notably among women and the young.

99. These failings are evidenced by trends in poverty and inequality indices—hence the characterization of the Italian social protection system as "**the poverty of welfare**."³⁵ In addition, as discussed also in Chapter I, the absence of more general support mechanisms has discouraged mobility and risk-taking in the labor market, and hindered labor layoffs where required (for example, at the present juncture, in the banking sector). The consequent recourse to ad hoc early retirement schemes and other special provisions, and the related proliferation of "different rules for different groups," has distorted intragenerational equity.

100. This chapter after drawing the main differences between the Italian welfare system and those prevailing in other EU countries (Section B), further examines some of the issues that arise from this comparison. Section C puts forward a consolidated presentation of the social security accounts, which—due to the system's complexity and the intricacy of financial flows from the government to the agencies, and among the agencies themselves—was not hitherto readily available. This allows to discern the answer to a central question regarding Italy's welfare system: namely, on which scale, and through which channels, can the pension regime

³³Prepared by Massimo Rostagno and Francesca Utili (summer intern).

³⁴*Commissione per l'analisi delle compatibilità macroeconomiche della spesa sociale* (1997), henceforth indicated as Onofri Commission. See also "The Welfare System in Italy: Recent Reform Proposals," in IMF Staff Country Report No. 97/44, May 1997.

³⁵OECD data indicate an aggregate poverty rate (defined in terms of the number of persons with equivalent disposable income below 50 percent of the median) appreciably higher in Italy (14.2 percent) than in either France (6.8 percent) or Germany (9.1 percent; data refer to different years in the 1990–94 period). Furthermore, the poverty rate rose by 3.9 percentage points in Italy in the decade to 1993. See OECD (1997).

be said to divert resources from other uses, notably from the protection of people in working age and, in particular, of those among them lacking a sufficient record of participation in formal employment?

101. Having ascertained that such diversion does indeed take place on a systematic and nonnegligible scale, Section D goes beyond the traditional distinction between contributory and solidarity programs and seeks to examine the Italian social welfare system from the premise that part of social insurance system—notably part of contributory pensions—is being called upon to substitute for the deficiencies of the social assistance apparatus. To this end, the section presents an empirical analysis of the impact of selected instruments of protection supplied uniformly to the whole territory and subject to (highly heterogeneous) tests of income. A measure of these instruments' effectiveness in reducing the incidence of economic disadvantage among covered populations, and their efficiency in accomplishing that goal at the minimum cost is also provided, together with an estimate of the cost to the budget arising from certain glaring inefficiencies. This analysis finds that the system fails the tests of effectiveness and efficiency. In addition, out of a total expenditure of 3.3 percent of GDP, as much as one-third accrues to individuals clearly not in "need." Section E reviews recent reform proposals and avenues for further action.

B. The Italian Social Welfare System: A European Comparison

102. The level of social expenditure in Italy, at around 25 percent of GDP, is **broadly in line with the EU average**. It is appreciably below that of countries with comparable levels of per capita income, notably France and Germany, where social spending exceeds 30 percent of GDP (Table 7). Even excluding sickness payments, likely to be underestimated in the case of Italy,³⁶ the country's relative position remains broadly unchanged.

103. But the **internal composition** of social expenditure is clearly atypical in Italy, on three main counts:

- Over 61 percent of total social security outlays are accounted for by old age and survivors' pensions, some 20 percentage points above the EU average. Even after adjusting for differences in definition and coverage, the system's **overprotection of retirees and the aged** remains manifest. Accordingly, the amount of resources left available to satisfy other forms of assistance (notably unemployment, family, and housing benefits) is markedly lower than in partner countries—under 10 percent of GDP, against a EU average (excluding Italy and Greece) of almost 17 percent of GDP.

³⁶Certain sickness benefits supplied by bodies outside the general government (*indennità economiche di malattia*) are excluded from the Eurostat definition of Italy's social expenditure but included in the corresponding figure for other countries; see Eurostat (1996).

- The **range of risks** covered is quite narrow by international standards, and the more innovative instruments introduced in some other EU countries (notably targeted to women, the young, and single parents) are either absent or in scant supply.
- Italy is (together with Greece) the only EU country without a national scheme of **residual protection for the poor** who are not eligible for any of the standard benefits and lack a sufficient record of participation in formal employment. This has led to a proliferation of local schemes managed by municipalities in a discretionary and nonuniform manner.

104. The peculiarities of social expenditure in Italy are also evident in its evolution over time (Table 8). While rising in all main EU countries as a share of output, the increase in other countries displayed a more markedly cyclical component, with much of the surge concentrated in the recession years between 1990 and 1993 (in Germany's case, clearly reflecting also the impact of unification). In Italy, in contrast, most of the rise in social expenditure took place in a steady, relentless manner throughout the 1980s, and slowed down only after the health and pension reforms of the 1990s—indicating the **eminently structural nature of the forces behind the expenditure dynamics**. In particular, there was no marked cyclical surge in spending on unemployment compensation over the recession years, nor did the latter play a significant role in explaining the additional, albeit more moderate, increase in total spending since 1990.

105. A point of discussion in Italy concerns the extent to which **classification problems** may overstate the system's bias against protection from risks other than old age, given the ancillary "social assistance" function discharged by pensions in the absence of other welfare support mechanisms.³⁷ But adjustments to enhance the international comparability of spending patterns by taking account of this element still leave Italy as an outlier. Following the so-called Esspros methodology employed by Eurostat, it is possible to disentangle those insurance-based benefits that, while paid on the basis of a past contribution record, discharge a distinctly "social assistance" function.³⁸ Table 9 illustrates the application of this methodology to break down payments to the elderly (excluding income provisions to survivors). Even after subtracting the means-tested transfers granted to recipients of low value pensions, as well as other social payments for the uninsured elderly, the portion of the "social budget" needed to meet the entitlements arising from the mandatory pension system is between 10 and 20 percentage points higher in Italy than in major partner countries.

³⁷This reality prompted the Onofri Commission to characterize social welfare as having largely grown as a "parasite" of the pension system (Onofri Commission, 1997a).

³⁸The methodology defines for each country a three-tier structure of social security comprising (i) a basic scheme, providing protection against insurable risks; (ii) a supplementary scheme, reinforcing the basic scheme; and (iii) a group of means-tested welfare instruments, targeting the needy on a solidarity principle.

106. Another salient characteristic of the Italian welfare system is the limited scope of the nonpension system of protection, and the comparatively **narrow range of contemplated contingencies** (evidenced also in Table 7). On the one hand, as noted, traditional public schemes targeted to support the active population and families (notably, unemployment compensation, family allowances, and maternity benefits) absorb a markedly lower portion of resources than in partner countries. On the other hand, new forms of public support that have been devised (particularly in northern Europe) to cope with the strains imposed by recent economic and social changes (instability of employment, the influx of women into the labor market, the difficulties faced by first-time job-seekers, the rising incidence of lone-parent families) are virtually nonexistent.³⁹ While in some other European countries the emergence of these new challenges, notably affecting women and the young, have led to a reassessment of the appropriateness of the existing welfare mechanisms, in Italy the traditional reliance on derived pension rights has continued to be the prevalent, or even sole, public response.⁴⁰

107. In this setting, **active approaches to the design of social benefits**, aimed at providing the young unemployed with job search incentives, have been equally lacking. The response in this area has taken the limited form of subsidies to employers of long-term or young unemployed workers (notably through lower social security contributions). More innovative instruments pursuing the same goal by providing advice and orientation to job-seekers, easing the cost of resettlement to adapt to interregional differences in the demand for labor,⁴¹ and subsidizing personal social services to working mothers are either absent or in scant supply.

³⁹The relatively scant attention devoted to policies affecting the family unit is even more evident if the analysis is extended beyond the expenditure side to embrace redistributive mechanisms working on the revenue side, along with the tax treatment of social assistance benefits themselves. Thus, for example, in France, the family burden is explicitly taken into account, through the *quotient familial*, in the marginal tax rate, and in Germany many forms of social transfers are tax-exempt. For an extensive analysis of the "citizen's budget" in his/her relations with the government, see Centro Europa Ricerche (1997).

⁴⁰Most European social security systems were developed on the assumption that looking after children and infirm adults lay with women and that, for them, paid employment had a secondary role. More recently, however, many countries have introduced means to reconcile family and professional responsibilities. In this framework, for example, Germany implements both a transfer system to lone-parent households (*Unterhaltsvorschuss*), and a support scheme for mothers raising children (*Kindergeld* and *Erziehungsgeld*) and for workers caring for adults. Sole parenthood is also targeted in France (*allocation parent isolé*), the United Kingdom, and several other countries; allowances for long-term carers are available in the United Kingdom (Invalid Care Allowance), Germany (*Pflegeversicherung*), and Ireland.

⁴¹A well-known example of the former kind is the Job Seeker's Allowance scheme recently introduced in the United Kingdom, while examples of the latter are to be found in Germany (*Wohngeld*), in France, and in the United Kingdom.

108. A system, such as Italy's, basing entitlement exclusively on the occurrence of a narrow range of rigidly defined contingencies, and aimed prevalently at (present or past) participants in the formal labor market, is liable to generate **severe gaps in coverage**. Italy's position in this respect has been characterized in the following terms (see *Commissione di indagine sulla povertà e l'emarginazione*, 1995): "In contrast to elsewhere in the European Union, Italy does not implement any generalized and universal policy supporting families for the cost of raising children, or any minimum income scheme. Substituting for them are, on the one hand, supplements to income received by low-paid workers and low-pension retirees (family allowances) and, on the other, forms of income support designed and administered, in a more or less discretionary and diversified manner, by local authorities.... For those without even a weak link to the labor market, the only two instruments of income relief subject to sufficiently clear-cut eligibility criteria are the social pension, on the one hand, and the civil disability allowance, on the other."

109. The need to provide a safety net to the poor left outside the realm of the nationally mandated programs has led to the **proliferation of "local systems of citizenship,"** managed by municipalities. However, unlike the schemes guaranteeing a minimum level of resources on a municipal basis in other countries, the Italian system has been characterized as a form of "federalism without principles": it lacks a general framework as to the form of intervention, the entitlement regime, the duration, and the amount of payments.⁴² Assistance under this fragmented system is conditional on residence and, again, on the occurrence of particular severe contingencies (being economically dependent on a prison inmate, drug addiction, etc.), or on age and health status. In the latter case, local systems risk overlapping with existing nationwide schemes for the uninsured elderly (social pensions and allowances) and the seriously ill (civil disability and long-term care benefits). In this setting, there is neither a form of income maintenance for all those in need nor the kind of inducements to participation (sometimes taking the form of retraining services) that, for example, accompany cash subsidies in Germany (*Sozialhilfe*), in France (*revenu minimum d'insertion*), and in the United Kingdom.

C. The Consolidated Social Security System

110. An overall assessment of Italy's welfare system is hindered by the complexity and opacity of the system's accounts. A first step, undertaken in this section, is to arrive at a **consolidated presentation of the social security accounts**. Such a presentation is set out in Table 10 for the most recent available year (1996).⁴³ By netting out intricate financial flows

⁴²See Onofri Commission (1997b).

⁴³The consolidated accounts of Table 10 are net of publically provided in-kind services—in the first instance, health. Figures are elaborations of data from Istituto Nazionale della Previdenza Sociale (1997) and Ministero del Tesoro e del Bilancio (1997), as complemented by

(continued...)

and counter-flows among agencies, and between agencies and the general government, the presentation aims to focus the analysis on the net injection of resources from the private sector and from general taxation, on the one hand, and the amount returned to the private sector in the form of final payments, on the other. Outlays include only the final provision of cash transfers to protect recipients against the income consequences of events such as longevity, bereavement, permanent incapacity to earn, or family size, and temporary separation from work due to unemployment, poor health, or maternity.

111. Benefits are grouped by row, according to their duration (permanent or temporary) and the program of reference (old age, disability, unemployment, professional injuries, family, maternity, and sickness). A further level of classification draws a line between benefits paid on account of mandatory contributions, and transfers made on the basis of the principle of social solidarity.⁴⁴ For each scheme, the columns indicate the paying administration (an independent agency or the government itself) and the relative composition of funding (through contributions and/or public transfers).

112. The classification helps highlight three main features of the consolidated system of social security in Italy.

- First, the **principle of contingency on the occurrence of privately insurable events**—being old, sick, disabled, temporarily unemployed, suffering from occupational injuries or diseases—lies at the heart of the entire entitlement system, as shown in the division among rows. Less than 10 percent of total expenditure is made on the basis of a pure solidarity principle, that is, outside the bounds of insurance-based programs.⁴⁵ Notably, the **uninsurable risk of poverty** is covered only if associated with a permanent incapacity to work due to age (through social pensions, accounting for only 1 percent of total expenditure) or serious illness (civil disability and other narrowly targeted schemes paying various allowances in an amount close to 6 percent of total expenditure). Thus distinct criteria of membership and exclusion—depending largely on current or previous occupational status—trace sharp borders between “insiders” and “outsiders.”
- Columns, providing details on the funding regime for each individual program, highlight the **large financial imbalances saddling the contributory portion of the system.**

⁴³(...continued)

information provided directly by the authorities.

⁴⁴This broadly neutral criterion is the same as that used in the United States (with OASDI on the one side, and AFDC or SSI, on the other) and in Germany (with the contributory *Rentenversicherung* and *Arbeitslosengeld* opposed to *Sozialhilfe*). See Atkinson (1995).

⁴⁵Net of contribution rebates granted both on geographical and sectoral bases (largely for industrial policy purposes), this figure would be close to 7 percent of the total spent.

Only 70 percent of the amounts paid on the basis of recipients' past contributions is actually financed through present contribution revenues. In order to meet its pension liabilities, the system has made recourse to extensive direct allocations and off-budget transfers from the unified Treasury account.

- While not directly observable from Table 10, due to its consolidated nature, the administration of benefits and programs is characterized by a **high degree of fragmentation**. There are three main paying agencies⁴⁶ and a plethora of formally autonomous funds operating within the agencies. Direct government intervention is dwarfed by the amounts administered through the agency system: only some 7½ percent of the total amount spent, or 1¼ percent of GDP (Table 10, row 30, column 5), is directly managed by the central government in the form of noncontributory aid to war veterans and to the seriously impaired.⁴⁷

Sources and financing of imbalances

113. While complex in principle, the above model of administration, centered on a plurality of autonomous intermediaries to provide coverage against insurable contingencies, allows to assess the role of government in directing the flow of funds to the different social protection programs.

114. This function is accomplished within INPS by a special body (GIAS), established in 1989, which handles financial flows from the state budget to the various funds administered within INPS, providing transfers to virtually all programs and reallocating surpluses among them. A comparison of the purported destination of state transfers (given by the budget allocations—Table 10, column 9) with their effective use (as measured by the difference between each scheme's contribution revenues and spending—column 8) is revealing: a clear **pattern of diversion of resources** emerges, that penalizes the working population vis-à-vis

⁴⁶These include (i) the National Social Security Institute (INPS), by far the largest, which covers both dependent workers in the private sector and certain categories of the self-employed; it currently pays some two-thirds of all pensions, also acting as a government agency for the provision of a number of public assistance programs; (ii) the National Institute of Social Security for Public Employees (INPDAP), paying civil servants' old-age and survivors' pensions (and, more recently, also disability allowances); and (iii) the National Institute for Work Injuries (INAIL), granting compensation for temporary work-related injuries, as well as permanent disability payments in cases of more serious injuries or illnesses.

⁴⁷In the transition to the new social security system inaugurated by the Dini reform of 1995, whereby all civil servants' pensions are to be paid by INPDAP, a few benefits (Lit 5.1 trillion, row 4, column 5) were still administered by the Ministry of Treasury and Budget in 1996.

the elderly and, among the latter, those receiving social assistance payments vis-à-vis the recipients of old age and seniority pensions.⁴⁸

115. All in all (excluding contribution rebates, largely used as industrial policy instruments), almost 60 percent (close to Lit 6 trillion) of total state transfers allocated to programs of temporary support and to noncontributory welfare plans administered outside the government is surrendered by these designated recipients to be ultimately directed to other uses. When these transfers are combined with the allocations explicitly subsidizing the contributory pension system (Lit 41.6 trillion, row 2, column 9), the latter effectively absorbs almost 80 percent of total state transfers to social security, an amount equivalent to 2½ percent of GDP.

116. The **shortfall between overall payments and contributions in the insurance-based system** as a whole is sizable, in the order of 4½ percent of GDP in 1996 (or Lit 84.6 trillion, row 1, column 8). Table 11 provides a further reclassification of the accounts to identify the sources of the imbalance and the pattern of deficit financing. The left-hand side of the table groups programs with a deficit (amounting to Lit 89 trillion), while the upper portion of the right-hand side lists those funds running a surplus (of Lit 4.4 trillion) and thus providing an internal source of funding to the rest of the contributory system. Three main conclusions may be drawn:

- **The contributory pension system accounts for the bulk of the imbalance.** Even after the additional resources made available with the 1995 pension reform, whereby a part of payroll contributions formerly used to finance family allowances was imputed to pension funding,⁴⁹ the various contributory pension funds (old age, seniority, disability, and survivors' pensions) fall short of self-financing by as much as 30 percent of their total expenditure.

⁴⁸Thus, for example, of the Lit 5½ trillion in transfers for temporary benefits targeting people in working age (row 12, column 9), only Lit 1 trillion (column 8) is actually used for the institutional purpose to which it was allocated. In the same vein, social pensions (granted to uninsured people above 65) absorb only some 70 percent of the transfers made available by the budget (Lit 3.4 trillion out of Lit 4.8 trillion; row 25, columns 3 and 9).

⁴⁹The 1995 reform, while leaving overall contribution rates unchanged, raised the contributions earmarked to finance pension funds from 27 percent to 32 percent of gross earnings (in order to bring them close to the notional rate of 33 percent used to compute a retiree's first-year pension). This was done by relabeling as pension contributions part of the contributions previously accruing to the family benefits plan, given the latter's structural overfunding. The operation resulted in a diversion of resources amounting to almost ½ percentage point of GDP from temporary benefits (with a distinctive welfare feature, as is the case of family benefits) to permanent pension transfers.

- **The only schemes in surplus are those of income support** targeted to families of dependent workers, working mothers, and for sickness benefits (Table 11, upper right-hand portion). This surplus broadly offsets the small deficit run by the unemployment funds.
- **The budget consistently underprovisions for pension spending.** With the amount of allocated budget transfers being systematically insufficient to cover the shortfall between overall payments and contributions, an additional mechanism of automatic “advances” from the unified Treasury account to the pension agency (INPS) has, over the years, assured the coverage of mandatory pension spending.⁵⁰

117. These conclusions provide some insight into the question posed in the chapter’s introductory section: can the pension regime be said to divert resources from other uses, notably from the protection of people in working age? The above analysis of the composition of funding between self-financing and budget transfers does indeed suggest that resources specifically committed for the purpose of intragenerational risk-sharing (and possibly vertical redistribution) are diverted in a systemic manner and on a nonnegligible scale to fund an intergenerational (life-cycle) reallocation of income.

118. What underlies the **pension fund’s chronic imbalance**? There are essentially two factors:

- First, part of the imbalance arises from the fact that the pension agency is called upon to provide, under various mechanisms, for the payment of benefits to certain categories of retirees that exceed their normally accrued amounts. INPS (1997a) estimates that total expenditure due to provisions that raise pension benefits above normally accrued rights amounted to Lit 47 trillion in 1996 (or 56 percent of the overall deficit). The bulk (two-thirds) of such expenditure arises from so-called *integrazioni al minimo* (henceforth indicated as “supplementary benefits”).⁵¹ The remainder of what INPS defines as a welfare burden improperly placed upon the insurance system is due mainly to (i) past legislative increases of existing benefits, raising the amount of pensions calculated on the basis of the less generous regimes in place in the 1950s and 1960s; (ii) the financial impact of the secular shift from agricultural to industrial activities on the farmers’ pension fund, a burden judged to be of a

⁵⁰This system of ex post off-budget transfers has given rise over time to book liabilities of INPS vis-à-vis the state amounting to about 8½ percent of GDP by end-1996. In the awareness that the pension agency will never be in a position to repay the advances made, the government has put forward draft legislation canceling most of this debt.

⁵¹These are means-tested supplements granted to pension recipients in cases where their accrued benefits fall short of a statutory minimum (described further in Section D below).

collective nature; and (iii) ad hoc early retirement schemes granted on a case-by-case basis to facilitate labor shedding and restructuring in mature industrial sectors.⁵²

- Second, the imbalance of the pension system is also clearly attributable to its generosity, particularly in terms of the institution of seniority pensions and the high accrual factor in the calculation of pensions. These features have been amply examined elsewhere, and need not be rehearsed here.⁵³

119. While the system's imbalance due to the generosity of the accrual system per se poses a problem of misallocation of resources across generations, the imbalance originating from transfers in excess of accrued benefits draws attention to the pattern of intragenerational (vertical) redistribution of incomes. As noted above, the former set of issues has already commanded wide attention in the literature.⁵⁴ The second has received comparatively less attention, and raises the question of whether pensions, as complemented by other means-tested subsidies targeted to low-income retirees, can be thought of as discharging an ancillary "social assistance" function, given the absence of fully developed welfare support mechanisms. This issue is examined in Section D below.

D. Selected Welfare Instruments: A Micro-Analysis of Efficiency and Effectiveness

120. This section is devoted to an analysis of selected income-tested nationwide instruments, granted either on a previous contribution record or on a general principle of solidarity, and targeted to people not participating in the labor market due either to age or disability. Expenditure on such programs totaled Lit 62.1 trillion in 1996, or 3.3 percent of GDP (Table 12). The instruments examined, featuring highly heterogeneous rules of access, comprise: (i) supplements paid to elderly and widowed pensioners to raise their accrued benefits to a statutory minimum (*integrazioni al minimo*); (ii) subsidized disability allowances for those with a shorter contribution history; (iii) social pensions designed for elderly people in need and not qualifying for any pension; and (iv) civil disability transfers for the seriously

⁵²Such episodes (typically consisting in lowering, by up to five years, the seniority required for retirement) have been frequent. At the end of 1995, the total number of retirees in receipt of pensions awarded before achievement of both the standard retirement age and the minimum contribution period (35 years) was as high as 391,000 (of which over 100,000 were still below the minimum age threshold), accounting for total expenditure in the order of 0.2 percent of GDP (Lit 3.8 trillion in 1996); a budget transfer to INPS (Lit 2.8 trillion in 1996) covers part of this cost (Table 10, row 6, columns 1 and 9).

⁵³For a critical assessment of the pension system before the 1995 reform, see Demekas and Canziani (1995); for an evaluation of the postreform system, see Hamann (1997).

⁵⁴See, for example, Franco and others (1994).

impaired with insufficient means.⁵⁵ Both the targeted populations and the means-testing mechanisms governing the various regimes are described in Box 1.

121. The basic source of empirical evidence used in this section is the nationwide survey of household budgets conducted, on a two-year cycle, by the Bank of Italy. By covering 8,000 households, this extensive microdata base provides ample possibilities of matching detailed information regarding incomes, expenditure, and wealth with the personal characteristics of the population surveyed. Although a full account of the statistical problems affecting the survey falls outside the confines of the present study,⁵⁶ an initial caveat is in order. The Bank of Italy sample shares the same bias of many comparable data bases, in that it excludes—either by design or through nonresponse—many of those at the margins of society. As they are not part of a household, it also excludes from its coverage certain categories of people, for example, those living in nursing homes. Since part of the population in receipt of the benefits examined is likely to fall into these categories, the findings are likely to be affected correspondingly.

122. A further difficulty is attributable to the almost impenetrable complexity of the system of social security in Italy. Given this complexity, no pretense can be made that interviewees correctly identify the nature of the benefit they are drawing. For example, a simple screening conducted on the part of the sample that declared to be in receipt of a social pension revealed that a large number of them either do not meet the social pension's statutory age requirement (above 65 years of age), or draw a pension far in excess of the amount assured by the social pension plan. In a similar vein, many recipients of noncontributory support provided by the Ministry of the Interior to the disabled report their benefits as being paid under the INPS contributory regime. In addition, in the questionnaire, no question is asked—as few individuals would likely be in a position to provide an answer—about the share of the contributory benefit to be traced to the accrual of previous contributions, as opposed to the share due to the supplement provided by the system to bring the accrued benefit to the minimum statutory amount.

⁵⁵The analysis does not include other welfare instruments, such as family benefits, long-term care allowances, veterans' pensions, and the multiplicity of schemes at the municipal level. The characteristics and problems of the system of family allowances in Italy has already been extensively studied elsewhere (see, for example, Franco and Sartor, 1990 and 1994), and, for an official view, *Commissione di indagine sulla povertà e l'emarginazione* (1995). Long-term care allowances were not included as entitlement is not means-tested, while municipal aid was excluded because of the high diversity of access rules and the scarcity of observations in the sample used for this study. The latter applies also to veterans' pensions.

⁵⁶The structure of consistency controls, double checking, poststratification reweighting (to correct for differential response rates by sampling strata) conducted on the raw data, as well as a thorough account of underrepresentation problems of the sample, are surveyed in Brandolini (1993).

Box 1. Selected Welfare Benefits: Entitlement Rules

The main text reviews selected incomes-tested nationwide instruments, granted either on a previous contribution record or on a general principle of solidarity, and targeted to people not participating in the labor market due either to age or disability. Expenditure on such programs totals some 3.3 percent of GDP. These instruments comprise: (i) supplements paid to elderly and widowed pensioners to raise their accrued benefits to a statutory minimum (*integrazioni al minimo*), with total spending in the order of 0.9 percent of GDP; (ii) subsidized disability allowances for those with a shorter contribution history (1.9 percent of GDP); (iii) social pensions designed for elderly people in need and not qualifying for any pension (0.2 percent of GDP); and (iv) civil disability transfers for the seriously impaired with no accrued pension rights (0.4 percent of GDP). These instruments feature heterogeneous entitlement rules, reviewed below (see also Table 12 for a summary presentation).

- **Supplementary benefits** (*integrazioni al minimo*) granted to recipients of old-age and survivors' pensions in cases where their accrued benefits fall short of a statutory minimum. Eligibility for the supplementary benefit is subject to the requirement that the claimant's personal taxable income (and, if married, that cumulated with the spouse) be below certain thresholds. Specifically, the recipient's individual income cannot exceed a maximum equal to twice the amount of the statutory minimum (around Lit 8.6 million per annum in 1996); also, cumulated incomes accruing to the recipient and his/her spouse cannot exceed four times the same amount (Lit 34.4 million). It is important to note that a wide array of tax-exempt income sources—such as interest earned on government securities, severance payments received upon retirement, imputed rents on owner-occupied property, and the supplemented pension itself—are excluded from this means test. Furthermore, if the above thresholds are satisfied, the difference between the accrued pension and the statutory minimum is paid for the entire amount, regardless of the ex post income situation of the recipient. As a result, the ex post cumulative income—exclusive, it bears repeating, of the tax-exempt sources noted above—can vary within a very wide range. The bottom of the range would be given by the level of the minimum pension itself (just above the individually adjusted poverty line, of around Lit 8.5 million on a yearly basis), in the case of an unmarried person with no additional sources of income, to Lit 34 million, in the case of total taxable incomes (excluding pension) not exceeding four times the level of the minimum. While the 1995 pension reform abolished the institution of the *integrazione al minimo* for new enrollees, no changes were made to the entitlement system for all other cases. The institution will thus continue to operate for the next 35 to 40 years.
- **Disability pensions**, paid on the basis of at least five years of contributions to dependent workers and the self-employed covered by the social security agency, INPS (and, more recently, also by INPDAP). The accrued pension is also supplemented to the minimum. However, subject to own-income thresholds equal to the social pension (see below), for single individuals, and to three times as much for a couple, the supplement paid in this case cannot exceed the amount of the social pension itself.
- **Social pensions** provided an annual transfer (of between Lit 4.8 million and Lit 6.4 million) to people aged 65 or more without an insurance-based pension. The 1995 pension reform, by introducing a newly designed social allowance, grandfathered all present recipients. Consequently, despite the fact that the new instrument was made subject to an improved test of means, its incidence over the total spent will be limited for the next 10 to 15 years.
- **Civil disability pensions**, targeting the impaired with no accrued pension. The amount and award formula replicate the mechanism applied to social pensions. No maximum threshold for the cumulative income of couples is set in this case.

123. In order to minimize the error of including in the selected sample observations which should be discarded, and of excluding answers that should instead be taken into account, a series of filters was applied in the process of subsample selection. Once the subpopulations covered by the instruments under review were identified with a sufficient degree of confidence, the problem of estimating the accrued part of the benefits (as opposed to the possible supplement received) was tackled through an imputation procedure. Both the filters employed in assembling the samples and the imputation technique to estimate the composition of the transfers are described in the appendix to this chapter.

A classification of recipients according to “need”

124. Data regarding the income of the recipients of the welfare benefits under review provide a basis to classify the recipients according to a measurement of their effective “need” for the benefit they receive.

125. In the case of supplementary benefits to the minimum (*integrazioni al minimo*) for old age, seniority, and survivors’ pensions, and of contributory disability pensions paid by INPS, the following three groups are identified, in decreasing order of “need.”

- **A group clearly in “need”** (Group A): for people classified in this group, the disposable income (net of imputed rents for owner-occupied property) of the households to which they belong remains below the poverty line (defined by family size) even after allowing for their accrued pension. They clearly need the supplement to the minimum to improve their overall income situation.
- **An intermediate group** (Group B), consisting of individuals whose families, while below the applicable poverty threshold before receipt of any benefit, are brought above this threshold after receipt of the accrued part of their pension. The addition of the supplement to the minimum thus further widens the differential from the poverty line. In this sense, there is clearly a lesser “need” for the supplementary benefit than in the case of Group A recipients.
- **A group not in “need”** (Group C), comprising recipients of families whose income even before the accrued pension is above the relevant poverty line. There is, in this case, no evident need for a supplementary benefit to the minimum.

126. In the case of people drawing an INPS disability pension, the classification is not applicable to those pensioners who report some form of persistent disability (indicated as Group D). It is applied only to the subpopulation that, while receiving an INPS disability pension, declare themselves to be “without any form of disability.” While such candor may be surprising, it may be ascribable to the assurances of strict confidentiality and anonymity that accompany the survey process and the questionnaire. Noncontributory benefits, such as social pensions and civil disability allowances, also do not permit the same three-tier distinction, given the absence of an accrued pension as a starting point of the classification. Recipients of

these benefits were thus divided into two groups: one starting from below the poverty threshold before receipt of the benefit (Group A), and the other already above it even without the benefit (Group B).⁵⁷

127. The classification described above implies taking a position on a number of controversial methodological issues concerning the measurement of standards of living and poverty.⁵⁸ These are worth noting, as they could be deemed to affect the findings and related policy implications.

- The **recipient's family**, rather than the recipient alone, **is taken as the unit of analysis** (that is, the group of persons whose resources are assumed to be combined in the assessment of living standards). This choice is dictated by a set of considerations, the most compelling being the difficulty of reaching a meaningful measurement of the poverty line for a single individual living in an extended household—for example, a widowed person sharing the same dwelling as his/her married children.⁵⁹ Of course, using the family as a unit of analysis entails the implicit assumption that intrahousehold inequality is not a significant problem, and that resource-sharing—particularly interspousal obligations of support—is a well-established (and fair) practice. This might well not be the case, particularly for elderly people depending on assistance provided by other household members.

- The **poverty threshold** employed is that put forward by Italy's permanent committee on poverty and social exclusion, which defines the minimum standard of living for a two-member household as equal to nationwide per capita consumption expenditure.⁶⁰ The equivalence scale adopted to adjust this benchmark family index for differences in household size treats a couple as being equivalent to 1.66 single adults. Income is consequently defined in "equivalent terms." In order to measure the household living standard, after-tax incomes reported in the survey are deflated by the applicable poverty threshold so as to render them comparable across families of different composition.

⁵⁷For civil disability pensions, this distinction was applied only to those declaring themselves to be "non-disabled," and excluding those defining themselves as currently disabled (included in a Group D, in a manner analogous to that noted above for INPS disability pensions).

⁵⁸For a detailed survey of the methodological problems in this area, see Atkinson (1995).

⁵⁹While there are equivalence scales to bring incomes accruing to families of different sizes to a comparable position, there is no equivalence scale measuring the amount of resources that would suffice to place a single person living in an extended family above a certain minimum standard of living.

⁶⁰*Commissione di indagine sulla povertà e l'emarginazione* (1995a) provides a detailed account of the hypotheses behind the adoption of this particular poverty threshold. For an alternative view to this approach, see Cannari and Franco (1997).

- Implicit in the construction of an indicator of “need” is the assumption that the transfer programs under review, even those among them of a contributory nature, should be primarily geared to a **more effective fight against poverty**. This is, however, by no means an uncontroversial matter in Italy, where both a consolidated jurisprudence and long-standing policy practice seem to espouse a different (and more far-reaching) notion. In particular, there is a widespread view that workers with a significant history of contributions should be granted a higher degree of income maintenance than that afforded to people relying solely on public assistance for subsistence. Under this view, a test of performance of instruments of income support that are viewed as being at the border between social insurance and assistance, such as the one which is proposed in the following paragraphs, should not take targeting efficiency as its point of departure.⁶¹

The destination of outlays according to “need”

128. As noted, total outlays on the selected welfare benefits under review amounted to 3.3 percent of GDP in 1996. Figure 12 breaks this amount down among the categories of recipients classified according to their “need,” as defined above. It emerges that only some 60 percent (or under 2 percent of GDP) of the amount spent accrues to individuals who may be deemed to be truly in “need,” as measured by the official poverty line, or genuinely disabled (Group A in each category, plus Group D for INPS and civil disability pensions). A further small amount accrues to an intermediate category, whose degree of “need” is less clear-cut. All in all, as much as one-third of the amount spent accrues to individuals clearly not in “need” (the black portions of the pies), that is, to individuals who are already above the poverty line even before receipt of the benefit in question—and, furthermore, in the case of INPS and civil disability pensions, also declare themselves to be currently nondisabled.

129. The instrument that directs the greatest amount of resources to people in no apparent need is that represented by the **supplements to the minimum** (*integrazioni al minimo*) for old age and survivors’ benefits, and the **disability pensions** (Figure 12, top three panels). Of a total 2.7 percent of GDP spent on these instruments, only 1½ percent of GDP accrues to people unequivocally in need—inclusive of individuals who are not disabled but would be below the poverty line without the additional supplement to their INPS disability pension. Indeed, as regards the latter, only slightly more than 55 percent of the transfers reaches self-declared “disabled” individuals (Figure 12, central panel, Group D); the remainder accrues to acknowledged “nondisabled.”⁶²

⁶¹For a view on the debate on the advisable degree of coverage to be assured to different categories of citizens, according to their working history, see Franco and Morcaldo (1988).

⁶²Notwithstanding assurances about the anonymity of the information provided, evidence on low response rates and systematic underreporting of income sources (see Brandolini, 1993; and Cannari and D’Alessio, 1990) would suggest that the relative incidence of the

(continued...)

130. A large proportion (some 57 percent) of **social pensions** accrues to people already above the official poverty line, but the amount of outlays involved is relatively small (Figure 12, penultimate panel). Finally, **civil disability allowances** show a better-balanced composition, and the amounts accruing to people in no evident need is also comparatively small (Figure 12, bottom panel).

131. Another dimension along which the expenditure programs should be evaluated in order to determine whether they are truly justified on welfare grounds is that of the **age composition of the recipients**. Figure 13 divides spending on supplements to old age pensions, and INPS and civil disability transfers to the “nondisabled,” according to the age of the recipients in the different groups.⁶³ The figure illustrates that almost 6 percent of the “most deserving” (Group A) of the elderly in receipt of supplements to their old age pensions (and around 11 percent and 37 percent of, respectively, INPS and civil disability transfer recipients) are actually below the standard retirement age (62 for men and 57 for women in 1995, the year of the survey). Thus, part of the expenditures that, on purely income considerations, were judged above as meeting a genuine welfare target, probably does not stand a broader test of efficiency. Clearly, at least part of these welfare payments has been originated by the claimant’s decision to advance retirement—raising the question as to whether, in so doing, beneficiaries might not have partly contributed to their status.

132. A final point of interest concerns the **geographical distribution of welfare outlays**. The general picture that emerges (Figure 14) appears reasonable: the bulk of payments under the programs reviewed (with the notable exception of supplements to the minimum for old age pensions) are directed to the poorer regions in the Center-South of the country, mirroring the marked territorial concentration of poverty in Italy. Nonetheless, excluding payments made to the truly disabled, and thus concentrating on the share of spending whose distribution may be better assessed on purely economic grounds, only slightly more than 56 percent of the total resources spent on the benefits reviewed accrues to the part of Italy where almost 80 percent of poor families are concentrated.⁶⁴

Measuring the safety net’s efficiency and effectiveness

133. As recognized above, poverty alleviation might not have been the guiding policy objective when the programs examined were first designed: this is probably true for support

⁶²(...continued)

“nondisabled” may be underestimated by a fairly high number of false returns.

⁶³A breakdown by age for recipients of survivors’ pensions (widowed and orphans) and for the genuinely disabled is, of course, not relevant.

⁶⁴See *Commissione di indagine sulla povertà e l'emarginazione* (1996).

schemes at the border between social insurance (*previdenza*) and assistance (*assistenza*), such as the supplements to the minimum for old age and survivors' pensions, and certainly true for disability pensions. However, given the scarcity of overall resources devoted to addressing conditions of economic disadvantage, and the absence of a national scheme to alleviate poverty, assessing the targeting effectiveness and spending efficiency of the existing incomes-tested instruments appears to be a relevant exercise.

134. We shall assess the **effectiveness of targeting** from two different angles:

- **Vertical efficiency:** understood as the existing schemes' ability to minimize the amount of resources spilling over beyond the targeted population, to assist not *only* but at least *primarily* the needy.
- **Horizontal efficiency:** understood as the schemes' ability to provide assistance for *all* of the targeted poor.⁶⁵

An estimation of their combined impact on the distribution of "equivalent" income (i.e., as adjusted for differences in family size) among the covered population will complement the tests of effectiveness and efficiency.

135. The first three columns of Table 13 set out the scale of equivalent incomes before and after public support for each of the different groups of beneficiaries, classified according to the above-described degree of "need." Table 14 does the same for the genuinely disabled receiving disability pensions (denoted as group D). The last columns of both tables provide an "absolute" measure of public intervention by dividing the average benefit accruing to each individual group by the *individual* poverty line (some Lit 8.5 million in 1996). As could be expected, group A is the most "deserving," at least from a narrow economic point of view.⁶⁶ Cumulating outside sources of income (column 1) with accrued benefits—when these exist—own resources (column 2) fall short of the minimum acceptable standard of living by between a third (for receivers of old-age and disability payments) and a half (for recipients of survivors' and social pensions).

136. The "final resources" (or ex post incomes) available to beneficiaries (column 3) show a picture of **underprotection in sharp contrast to the extent of overprotection**. Average coverage for low-income families (Group A) is less than full in all cases except for social pensions and the nondisabled in receipt of an INPS disability allowance. Moreover, the system's capacity to provide effective coverage is lowest among people reporting some form

⁶⁵The distinction between vertical and horizontal efficiency was introduced by Weisbrod (1970).

⁶⁶Recall that groups A, B, and C among those receiving INPS disability transfers are actually nondisabled.

of disability (Table 14, column 3). Other groups start from a better-off position before public transfers, to the point that Group C consistently enjoys an income more than twice the applicable poverty line *before* receiving the subsidy (column 2): one may wonder whether ex ante rates of coverage exceeding twice the minimum justify transfers the size of the ones shown in column 4. Such an extent of overprotection **fails the criterion of vertical efficiency**, and points to a serious misallocation of transfers.

137. An optimal system of public support should also aim, as an intermediate objective, at devising instruments with a fair **degree of flexibility**. In this respect, the instruments' capacity, on average, to calibrate money support according to the economic conditions of the recipient, granting more when the shortfall of own resources with respect to the poverty threshold is larger, should be the hallmark of the plan. Column 4 measures the extent of the "absolute" public contribution to family welfare corresponding to different ex ante conditions. Clearly, **the system fails the test of flexibility** in virtually all cases: either the range of the transfers made is insufficiently wide—the difference between the highest and the lowest figure within each group never exceeding 15 percent of the individual poverty line; or it is completely unrelated to the demand of protection expressed by the different groups. A striking example of perverse graduation of support is represented by the supplements to the minimum for old-age and survivors' pensions, where the scale of transfers, proceeding from low income to better-off families, is flat or even inverted.

138. Table 15 (column 1) assesses the degree of **horizontal efficiency** by referring to the number of families left below the relevant poverty threshold after receiving public support, as a percent of the total populations covered. Column 2 evaluates the extent of the ex post shortfall vis-à-vis the minimum among the most needy (the so-called poverty gap).⁶⁷ All indices, except for the one corresponding to old-age and seniority pensioners, are far above the poverty ratio calculated by the Commission on poverty and social exclusion for the entire population of Italian households (around 11 percent, in 1994).⁶⁸ The incidence of poverty is widespread among recipients of survivors' pensions and the truly disabled with civil disability allowances, who also exhibit the highest intensity of poverty as measured by the poverty gap.

139. The failure to reduce the diffusion of poverty among targeted households goes hand-in-hand with **sizable spill-over effects**, as shown by the high incidence of recipients who, after cumulating the transfer with their own resources, are brought beyond 2½ times the rate of full coverage (Table 15, column 3). Even excluding people reporting some form of disability and receiving related payments from INPS (where reference to the poverty line may not be warranted given the insurance component of their benefit), there clearly appears to be **scope**

⁶⁷Note that a measure of the average poverty gaps for the entire population targeted by the different schemes is provided by the complements to 100 (if positive) of the figures reported in Tables 13 and 14.

⁶⁸See *Commissione di indagine sulla povertà e l'emarginazione* (1996).

for redistribution among beneficiaries of each program and across different programs. For example, one would wish to shift resources from supporting direct old-age benefits to other programs that fail to bring beneficiaries above their relevant poverty line.

The distribution of income

140. Target efficiency also has an important macro dimension. Besides striving to meet the objectives of vertical and horizontal efficiency—and the intermediate objective of flexibility in the amounts paid—the policymaker also needs to be concerned about the distribution of income *before* and *after* public intervention. In principle, the pursuit of vertical and horizontal efficiency should in itself bring a considerable reduction of income disparities across the targeted population.

141. Figure 15 provides a visual representation of the degree of vertical and horizontal efficiency attained by the existing regime, as well as some insight on the income disparities which it addresses and those which it neglects. In the figure, households covered by the schemes under review have been aggregated and ordered by the levels of income as percent of their average poverty thresholds. The curves connect the equivalent incomes accruing to the richest family of each decile: for example, line A, depicting income distribution of the currently targeted population *before receipt of the public transfer*,⁶⁹ indicates that the family with the highest before-transfer income in the first decile has a level of own-income coverage of some 47 percent of its poverty level. Line B corresponds to the new distribution *after receipt of the public transfer*. Following line B, one derives that the system of the combined existing programs of welfare protection raises the coverage of the first decile to some 87 percent.

142. In assessing, first, the target efficiency of the current regime, two areas of the chart are of relevance. The areas comprised between curves A and B and the horizontal line of full coverage (100 percent), to the left of the points where the curves intersect the latter line, measure the aggregate poverty gaps corresponding, respectively, to the absence of protection (the area above curve A), and to the current system (the area above curve B). On the other hand, the area comprised between the two curves to the right of the point in which line A crosses the horizontal line measures the aggregate amount of overprotection provided by the current system. Table 16 expresses the areas in lire terms: by measuring the “integrals” of the areas below the 100-percent line, it indicates that the current system reduces the aggregate poverty gap of the combined targeted populations from Lit 17.3 trillion, as measured before public intervention, to Lit 7.4 trillion, with an “effective adjustment” of Lit 9.9 trillion (column 2).

⁶⁹Defined by the amount of own resources, that is, the sum of external sources of income and accrued pension rights.

143. The effective adjustments in poverty gaps (in column 2) are then compared to the amount of resources committed (column 3).⁷⁰ The reduction in poverty gaps achieved is less than one-quarter the amount of money spent: in other words, for each lira spent on these welfare programs, less than 24 cents can be said to be used to alleviate poverty (the “effectiveness rate” shown in column 4), the rest being paid to supplement incomes that are already above the full protection line (the “overprotection” shown in column 5).

144. The relative steepness of the two curves is relevant to an assessment of ex ante and ex post distribution.⁷¹ If assessed against this benchmark, the current regime, while substantially reducing the ratio between the ninth and the first decile (from 6.3 to 3.7), does not help to flatten the ex post situation as shown by curve B. Indeed, from the first decile onward, the two lines are virtually parallel. By way of comparison, it may be noted that the average decile ratio, calculated for the *entire* population of a number of European countries does not exceed 3.3.⁷² By the same token, making reference to the Lorenz curves (representing cumulative decile shares of total income) attached to the ex ante and ex post situations in Figure 16, one would expect to observe a clear shift toward the diagonal.

The cost of an ill-designed targeting system

145. What lies behind the existing system’s failure to achieve a number of objectives that should figure prominently in any welfare policy agenda? While fraud in the guise of underreporting of taxable incomes (and, for disability pensions, of unfounded disability claims) is certainly not negligible (see Table 15, column 4), the problem lies primarily in the system’s

⁷⁰The table has two levels of aggregation. First, a broader one that concentrates on the totality of expenditure made to subsidize recipients’ own resources (supplements to the minimum paid to old age, survivors and INPS disabled retirees, social pensions and civil disability allowances). Second, a narrower one that excludes the entire transfers (both the accrued pension and the subsidy to the minimum) made to INPS “disabled,” thus eliminating the insurance element present in the latter’s benefits, in order to concentrate on the share of outlays with a pure welfare support function. The results do not change appreciably, and the text reports on the first level of aggregation only.

⁷¹An ideal scheme should be designed in a way to twist curve B, for a given curve A, to completely fill the gap beneath the horizontal poverty line, and to reduce the distance between the two curves above this line. A situation in which curve B were uniformly flatter than curve A, would indicate that the preexisting degree of income dispersion across the targeted families (as measured, for example, by the ratio of the highest to the lowest decile) had been reduced by public intervention.

⁷²As reported in Atkinson (1995). Note that the decile ratio calculated on the entire population should be systematically higher than the one estimated on the portion of the population targeted by public welfare support mechanisms.

ill-designed rules and eligibility criteria. None of the existing schemes defines a uniform minimum amount of resources deemed to be needed by an individual (aged and/or sick) in order to lead a less deprived life. Consequently, no program is endowed with a mechanism to calibrate the size of the transfer to the amount needed to fill the gap between the recipient's own resources (however assessed) and such a minimum (however defined). In addition, the claimant's wealth does not enter as an element in ascertaining eligibility conditions. While, as noted by Atkinson (1995), administrative constraints need to be kept in mind when advocating a refinement of targeting systems (and particularly their extension to include wealth parameters), there would appear to remain considerable scope for improvement of the Italian system—even within the confines allowed by the current state of public administration.

146. To measure the cost of the ill-designed targeting system, we constructed an institutional benchmark featuring a *rudimentary* version of a minimum income guarantee scheme for the aged and the disabled. This **counterfactual system** was purposely kept at an elementary level, to provide a viable alternative to the existing fragmented regime, given the constraints posed by a still scanty efficient assessment and enforcement system. In particular, the devised benchmark would (i) rely on information already available to the paying agencies and on their capacity to process this data, and thus does not assume an improved administrative apparatus; (ii) entail a *minimum standard of living guarantee* as a benchmark to identify target recipients and calibrate the amount of support; (iii) adjust declared resources for an easily observable proxy of families' wealth, while remaining centered on reported taxable incomes; and (iv) not pay any subsidy to accrued benefits before standard retirement age, except for disability allowances and survivors' pensions.

147. The award formula for a single person would be the following:

$$\text{SUBSIDY} = \text{Max}\{0; \text{MY} - \text{Max}[0; \text{AOR}]\}$$

with MY being the minimum guaranteed income on a twelve-month basis, and AOR the "adjusted own resources." These are set equal to the net accrued pension (NAP), where one exists, plus the imputed rents to owner-occupied property (IR) exceeding an ad hoc allowance (AL), plus any other sources of net taxable income reported for personal income tax purposes:

$$\text{AOR} = \text{NAP} + (\text{IR} - \text{AL}) + \text{OTY}$$

In other terms, in topping applicants' own resources up to the defined minimum, the system would (i) include imputed rents (currently excluded) to the definition of own resources, given the high correlation between this easily assessed parameter and families' total wealth (notably, in the form of self-occupied property); and (ii) shoulder part of the claimants' imputed cost of housing through an ad hoc allowance, to improve on the current discriminatory treatment of those claimants who do not own their home.

148. The award formula described above was calculated on the basis of a minimum income (MY) set equal to the 1996 individual poverty line (around Lit 8.5 million per annum) and an allowance (AL) equal to the average of reported imputed rents in the sample (around Lit 5 million). This counterfactual system was subsequently tested for horizontal and vertical efficiency, as well as on distributional grounds.

149. The results are summarized in Figures 15, 17, and 18; and in Tables 16 and 17.⁷³ The proposed benchmark system, while operated on the basis of the same administrative structure and with the same information processed by the schemes currently in place, would clearly improve upon the existing situation. The enforcement of a single, uniform measure of minimum income, coupled with a straightforward top-up mechanism of income subsidization, results in (i) a **reduction in the number of beneficiaries** (drastically so, among recipients of old age supplements; left-hand bars of Figure 17); (ii) an **increase in the average transfer paid** (except for people currently receiving a civil disability allowance and, to a lesser extent, INPS disability pensions; central bars); and (iii) a **reduction in expenditure** (except for supplements to survivors' pensions, and social pensions), for an overall amount close to ½ percentage point of GDP (right-hand bars).

150. While, due to the rudimentary nature of the proposed scheme (that does not take into account all forms of income and a full assessment of wealth), benefits would still accrue to families belonging to Group C (defined above as those in no evident need), the amount of resources flowing to this group would be considerably smaller (only slightly more than one-fifth of total spending, rather than one-third under the existing system—Figure 18). The share accruing to the group with an intermediate degree of need (Group B) would also be lower, except among old age pensioners.

151. The reduction in the number of beneficiaries, and the attendant decline in the amount of resources provided, could in principle be assumed to result in a worsening of the overall **indices of diffusion and intensity of poverty** among the currently covered population. This is, however, not generally the case. As may be seen by a comparison of Table 15 (the current system) with Table 17 (the counterfactual minimum income benchmark), poverty ratios under

⁷³Figure 17 gives the number of families covered, the average transfers made, and total resources committed, as percent of the current corresponding levels, were the counterfactual system to replace the current one fully and instantaneously. Figure 18 illustrates the distribution of outlays among different income groups.

the latter are almost invariably lower than corresponding current levels.⁷⁴ Aggregate **indices of both vertical and horizontal efficiency** also improve under the counterfactual scheme (see Table 16, bottom rows).

152. Finally, the **ex post distribution of incomes** would also clearly improve under the counterfactual scheme. The degree of dispersion among the target population (represented by curve C in Figure 15) would be reduced, as evidenced by the flatter shape of curve C relative to curve B (the current system), notably along the right-hand portion of the chart.

E. Reform Proposals and Prospects

153. Awareness of the shortcomings affecting Italy's welfare state has, in recent years, come increasingly to the forefront—first among independent observers and subsequently also among policymakers. This growing recognition led the government to appoint a special commission, known as the Onofri Commission, to investigate social expenditure; the Commission presented its final report, with a number of reform recommendations, in February 1997.

154. The Onofri Commission's report identified the need to shift expenditure away from the pension system and toward (i) more active labor market policies available for all categories of workers (outside the traditional borders of protection); and (ii) targeted forms of support to cover income risk, designed to build an equitable and effective safety net for the economically excluded. In designing the reform, the Commission stressed the importance of avoiding forms of moral hazard, work disincentives, and welfare dependency. The Commission was also attentive to the macroeconomic constraints on expenditure, and formulated its suggestions within the twin constraints posed by the goal of early EMU participation, and by the recognition that the level of taxation and social security contributions is already excessively high.

155. The Commission's criticisms and its call for action are largely in line with the main findings of this chapter. Its recommendations, while being couched in rather general and cautious terms, would in several respects constitute a first step toward a better system of protection. The recent (November 1997) agreement on pensions incorporated a few of the suggested changes in this area, but fell short of the bolder steps proposed. With the focus of the negotiations in 1997 remaining on pensions, a full policy response to the proposals regarding the welfare system more broadly remains to be formulated.

⁷⁴A notable exception regards Groups A and B among recipients of disability allowances: in this case, however, the worsening of the poverty indicators is entirely due to the exercise's (rather pessimistic) assumption that young "nondisabled" recipients of a disability transfer, once deprived of their pensions, would not find a job to make up for the shortfall in their family income.

156. On the **pension** side, the November 1997 agreement (subsequently incorporated in the 1998 budget) went some way in the direction suggested by the Commission, in terms of a gradual alignment of the contribution rate of the self-employed with the notional rate used to calculate their benefits, a more rapid increase in the minimum retirement age for seniority pensions, and the harmonization of various privileged regimes (notably in the public sector) with that of the private sector. However, the exclusion of blue-collar workers substantially circumscribed the significance of the changes affecting seniority pensions. Nor did the agreement incorporate the Commission's recommended extension of the new contribution-based regime to those categories of workers that had been grandfathered by the 1995 reform, or its call for more timely corrections, based on automatic rather than discretionary criteria, of the demography-related parameters used to calculate a retiree's first-year pension.

157. The limited pension savings officially projected to result from the November 1997 agreement (amounting to 0.3 percent of GDP by 2007) fall short of the Commission's call for a decisive move toward a more balanced pattern of social expenditure as a precondition to welfare reform. The generosity of the system (particularly in terms of the institution of seniority pensions and the high accrual factor), which was identified as a major cause of the contributory system's chronic imbalance (see para. 120 above), remains largely untouched. In this setting, Italy's pension system cannot be expected to free resources in favor of a better-balanced social assistance apparatus in the coming years—that is, even before the deteriorating demographics become an immediate constraint.

158. Turning to other benefits, the Commission characterized the current **unemployment protection regime** as a “disorganized and virtually ungovernable system of successively overlapping instruments,” and recommended its drastic simplification. It proposed substituting the existing schemes with a new two-tier regime centered on (i) an insurance-based program of short-term income maintenance to tackle cases of cyclical redundancies and suspensions of activity, financed through a new version of the current Ordinary Wage Supplementation Fund (*Cassa Integrazione Guadagni*), so as to avoid termination of the work contract and the ensuing loss of firm-specific human capital in situations viewed as temporary; and (ii) a uniform two-year scheme for all eligible unemployed, to replace the wide array of discriminatory programs that currently graduate protection according to sectoral and occupational groupings. Although it envisaged a gradual increase in replacement rates, the Commission also recommended that coverage decline with duration and be made conditional on the beneficiary's efforts in terms of retraining and job search intensity. Finally, it recommended a broadening of the training content of apprenticeship and trainee contracts, the abolition of the public monopoly of job placement, and a decentralization of job matching services. Only the latter two proposals have to date received official follow-up, as noted in Chapter I.

159. It is in the area of **welfare expenditure** that the Commission made its more innovative proposals. The long-standing need to draw a clear separation between social insurance (*previdenza*), to be financed from contributions, and social assistance (*assistenza*), properly

funded from general taxation, led the Commission to call for a redenomination of some expenditure items judged to be improperly considered as part of the contributory system and contributing to its deficit. This change, in the Commission's view, should primarily relabel the supplements paid to low-value pensions (*integrazioni al minimo*) as part of welfare rather than pension expenditure. The analysis presented in Section D, however, fails to provide support for such a conclusion. On the basis of the empirical evidence provided, an instrument that, in some cases, directs more than 80 percent of the resources spent to subsidize families with levels of income already more than twice above their relevant poverty threshold cannot properly be classified as a form of social assistance.

160. But the picture emerging from Section D is also more generally disheartening. The consolidated system of targeted instruments fails the tests of effectiveness in identifying the situations of greater need, and those of efficiency in doing so at the lowest cost. Owing to the absence of a built-in mechanism to adjust a recipient's benefits in line with the shortfall between his own resources and some minimum income threshold, the available programs lack the flexibility to calibrate their support according to the different income situations of recipients, and are ultimately ineffective in reducing the incidence of poverty among the covered population.

161. The Onofri report advocated, *inter alia*, the introduction of a nationally mandated **minimum income scheme** to address the problems noted above. This paper estimates that a substitution of the present instruments targeted on the elderly and the disabled with a unified system of "top-up" transfers to subsidize incomes to the official poverty line would entail savings of the order of 0.4–0.5 percent of GDP (para. 149 above). This amount of resources, freed by eliminating evident cases of overprotection, would be sufficient to finance a new program of support for young adults in need along the lines suggested by the Commission. The new welfare system would thus be organized according to the following two-tier model:

- A unified subsidy for those unable to work (because of age or physical impairment), awarded to people above 65 years of age or disabled, meant to compensate *entirely* the shortfall between (extended) household resources and the official poverty threshold. Section D provides an example of an award formula which could function as a provisional mechanism to allow access to the new scheme, pending a general overhaul of the system of means assessment.
- A residual safety net for the young actively seeking employment. To avoid dependency trap dynamics, this transfer should only *partially* fill the recipient's poverty gap and be contingent on the beneficiary's effort to (re)join employment. As proposed by the Commission, the new benefit targeted on adults in working age would also need to be complemented by a number of changes to the present tax system to avoid high marginal effective tax rates, and the related disincentive effects, as benefits are clawed back.

162. As this chapter was being finalized, negotiations were underway among the government and the social partners on a newly designed means test—a required element of the above proposals. Although details remain sketchy, this test (dubbed *ISE—Indicatore Situazione Economica*) would include some currently excluded sources of income as well as selected wealth indicators. The intention would be to apply it to all instruments of a welfare nature, such as social and civil disability allowances, and supplements to low-value contributory pensions (both to old age, survivors' and disability benefit recipients), as well as for access to certain health services. Broader reform initiatives of the welfare system as a whole remain nonetheless to be defined.

Table 7. Europe: Social Protection Expenditure by Function (1994)

(In percent of GDP)

	Belgium	Denmark	Germany	Greece	Spain	France	Ireland	Italy	Luxembourg	Netherlands	Portugal	United Kingdom 1/
Sickness	6.4	5.7	8.0	2.3	5.9	7.6	5.9	5.1	5.7	6.7	6.3	5.1
Invalidity	2.3	2.9	2.7	1.4	1.8	1.7	1.4	1.6	2.7	6.7	2.1	3.1
Occupational injuries	0.5	0.2	0.8	0.0	0.5	0.5	0.1	0.5	0.7		0.5	0.1
Old age	8.7	12.0	9.2	8.5	7.4	10.7	4.3	12.8	7.6	9.7	6.1	10.7
Survivors	2.8	0.0	3.0	1.6	2.3	1.9	1.2	2.7	3.4	1.7	1.3	0.3
Maternity	0.2	0.5	0.2	0.1	0.2	0.4	0.4	0.1	0.3	0.2	0.1	0.3
Family benefits	1.9	3.3	2.0	0.1	0.2	2.4	2.2	0.8	2.9	1.5	0.8	2.7
Placement, vocational guidance, resettlement	0.4	1.8	0.7		0.2	0.6	0.8	0.0	0.3		0.1	0.3
Unemployment	2.4	3.7	2.0	0.4	3.9	1.8	2.7	0.6	0.3	3.2	1.0	1.6
Housing		0.8	0.2	0.1	0.1	0.9	0.7	0.0	0.0	0.3	0.0	1.9
Others	0.3	1.8	0.7	0.6	0.2	0.5	0.4	0.0	0.0	0.9	0.2	0.4
Administration	1.2	0.9	1.2	0.9	0.9	1.6	0.9	1.0	0.9	1.4	1.0	1.0
Total	27.0	33.7	30.8	16.0	23.6	30.5	21.1	25.3	24.9	32.3	19.5	27.8

Source: Eurostat, *Social Protection Expenditure and Receipts, 1980-1994*.

1/ United Kingdom, 1993.

Table 8. Composition of Nonhealth Social Expenditure in the Major European Countries (1980-1994)

	1980	1985	1990	1994
Italy				
Total	19.4	22.6	24.1	25.3
Old-age pensions	9.9	11.9	13.6	15.5
Disability and occupational injuries	1.9	2.0	2.1	2.1
Unemployment	0.4	0.3	0.4	0.6
Family and maternity	1.3	1.1	1.1	0.9
France				
Total	25.4	28.8	27.7	30.5
Old-age pensions	10.5	11.1	11.7	12.6
Disability and occupational injuries	2.2	2.3	2.2	2.2
Unemployment	1.0	1.3	1.5	1.8
Family and maternity	3.1	2.8	2.6	2.8
Germany 1/				
Total	28.8	28.4	26.9	30.8
Old-age pensions	11.9	11.5	11.0	12.2
Disability and occupational injuries	3.4	3.3	3.1	3.5
Unemployment	0.9	1.0	1.1	2.0
Family and maternity	2.9	2.4	2.1	2.2
United Kingdom				
Total	20.5	23.8	22.1	27.8
Old-age pensions	8.5	8.8	9.1	11.0
Disability and occupational injuries	2.0	2.3	2.6	3.2
Unemployment	1.5	1.2	0.8	1.6
Family and maternity	2.6	2.5	2.3	2.9

Source: European Commission, *Social Protection in Europe*, 1995.

1/ 1980-1990 figures refer to Western Germany.

Table 9. Payments to the Elderly by Type of Benefit, 1993

(In percent of total social outlays)

	Italy	France	Germany	United Kingdom
Mandatory pension system	42.0	32.9	23.1	20.1
Basic contributory pensions	41.4	25.3	23.1	13.2
Supplementary contributory pensions	0.6	7.6	...	6.9
Social pensions and welfare supplements	0.9	0.8	1.0	2.4
Voluntary contributory pensions	...	0.7	3.7	9.1
Other money transfers 1/	6.1	0.1	2.0	...
In-kind support	0.6	0.5	0.1	1.3
Total	49.6	35.0	29.9	32.9

Source: Onofri Commission, *La spesa sociale italiana in prospettiva comparata*, 1997.

1/ For Italy, it includes severance payments.

Table 10. Italy: The Consolidated System of Social Security (1996) 1/
(In trillions of lire)

	Social Security Funds Expend. (1)	Contr. (2)	Subsidized Programs Expend. (3)	Contr. (4)	Direct Govt. Expend. (5)	Total Expend. (6)	Total Contr. (7)	Deficits (8)=(7)-(6)	Budgeted Transfers (9)
Contributory benefits	285.1	208.0	4.5	2.1	5.1	294.7	210.1	-84.6	47.1
Permanent benefits	263.4	184.7		0.2	5.1	268.5	184.9	-83.6	41.6
Of which: Supplementary benefits	31.3					31.3			22.9
Old age and seniority	183.3	172.2			5.1	188.4	172.2	-16.2	41.6
Of which:									
Supplementary benefits	10.2					10.2			
Early retirement benefits	3.8			0.2		3.8	0.2		2.8
Disability	35.7					35.7			
Of which: Supplementary benefits	15.8					15.8			
Survivors	34.7					34.7			
Of which: Supplementary benefits	5.3					5.3			
Permanent work injuries	9.7	12.5				9.7	12.5	2.8	
Temporary benefits	21.7	23.3	4.5	1.9		26.2	25.2	-1.0	5.5
Support for the unemployed	10.3	8.4	4.5	1.9		14.8	10.3	-4.5	3.7
Of which:									
Standard unemployment benefits	7.1	4.2				7.1	4.2	-2.9	1.0
Ordinary wage supplement	0.6	3.6				0.6	3.6	3.0	0.1
Other compensations	0.7	0.6				0.7	0.6	-0.1	
Special unemployment benefits	1.9		2.2	0.1		4.1	0.1	-4.0	0.7
Special wage supplement			0.8	1.2		0.8	1.2	0.4	1.2
Mobility allowances			1.5	0.6		1.5	0.6	-0.9	0.7
Family benefits	6.0	8.1				6.0	8.1	2.1	1.8
Maternity	1.9	1.8				1.9	1.8	-0.1	
Sickness	2.6	5.0				2.6	5.0	2.4	
Temporary work injuries	0.9					0.9		-0.9	
Noncontributory benefits	8.7		3.4	2.1	19.0	31.1	210.1	-31.1	13.2
Social pensions			3.4			3.4		-3.4	4.8
Civil disability					7.5	7.5		-7.5	
Pensions for blind or deaf persons					0.9	0.9		-0.9	
Long care allowances					7.8	7.8		-7.8	
Veterans					2.8	2.8		-2.8	
Contribution rebates and others	8.7					8.7		-8.7	8.4
Total	293.8	208.0	7.9	2.1	24.1	325.8	210.1	-115.7	60.3
In percent of GDP	15.7	11.1	0.4	0.1	1.3	17.4	11.2	-6.2	3.2

Sources: INPS, *Rendiconto Generale per l'anno 1996 (1997)*; Ministero del Bilancio, *Relazione Generale sulla situazione economica del Paese (1997)*; and data provided by the authorities.

1/ Net of health spending.

Table 11. Italy: The Deficit of the Contributory System: Sources and Financing, 1996 1/

(In trillions of lire)

Sources	Financing
Contributory pensions 2/	Internal financing from programs in surplus
Unemployment benefits	Family and maternity
Temporary work injuries	Sickness
	Financing through budget allocations
	Transfer to pensions
	Of which: for supplementary benefits
	Transfers for unemployment
	Transfers for family benefits
Total shortfall of funds in deficit	Total budget financing
	Treasury advances

Sources: INPS, *Rendiconto Generale per l'anno 1996* (1997); Ministero del Bilancio, *Relazione Generale sulla situazione economica del Paese* (1997); and data provided by the authorities.

1/ Net of health spending and contribution rebate schemes granted both on geographical and sectoral basis.

2/ Including permanent benefits for work injuries; excluding social pensions, benefits to war veterans, and civil disability allowance.

Table 12. Italy: Selected Welfare Benefits

	Statutory Amount Granted (Lit million) 1/	Estimated Average 2/	Total Outlays (Lit trillion)
Old age/seniority and survivors supplement to the minimum pension	[A]	47.5	15.5
INPS disability pension		92.8	35.7
Of which: supplement to the minimum pension	[B]	48.1	15.8
Social pension		58.0	3.4
Without supplement	4.8	52.0	
With supplement 3/	6.4	72.4	
Civil disability pension	4.9	55.6	7.5
Total outlays (In percent of GDP)			62.1 3.3

Sources: Data provided by the authorities; and elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

[A] Difference between the statutory minimum pension (around Lit 8.6 million in 1996) and the accrued benefit.

[B] The INPS disability pension is granted according to the lesser amount between Lit 8.6 million and the sum of the accrued benefit plus the social pension. Therefore, the supplement granted cannot exceed the social pension.

1/ All amounts are expressed in per annum figures.

2/ Average amount received as percent of individual poverty threshold.

3/ A Lit 1.6 million supplement is paid in addition to the basic benefit if certain restrictive income requirements are met.

Table 13. The Safety Net: Average Incomes as Percent of Poverty Thresholds 1/

	Outside Resources (1)	Own Resources (2)	Final Resources (3)	Public Intervention (4)
Old age-seniority supplements				
Group A	29.2	64.7	96.8	47.4
Group B	75.1	112.8	140.5	38.4
Group C	223.9	252.6	276.6	47.2
Survivors supplements				
Group A	17.2	53.2	93.1	52.8
Group B	80.1	118.3	161.1	54.6
Group C	200.0	235.5	265.5	52.6
INPS-disability pensions				
Group A	43.9	69.1	99.5	58.7
Group B	79.5	118.5	141.7	48.4
Group C	195.4	220.5	243.8	49.5
Group D	134.9	164.3	188.3	45.5
Social pensions				
Group A	54.9	54.9	101.1	64.2
Group B	214.1	214.1	243.7	54.1
Civil disability pensions 2/				
Group A	69.9	69.9	97.0	55.0
Group B	211.9	211.9	246.1	55.0
Group D	146.4	146.4	177.1	55.0

Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

1/ Average income—from outside sources (column 1), from outside sources plus accrued pension (column 2), and after public support (column 3)—as percent of average poverty lines applying to each group. Column 4 gives the average benefit paid to each group as percent of the individual poverty line (around Lit 8.5 million, in 1996).

2/ Outside resources include long care allowances.

Table 14. Italy: The Safety Net for the Currently Disabled: Average Incomes as Percent of Poverty Thresholds 1/

	Outside Resources (1)	Own Resources (2)	Total Resources (3)	Public Intervention (4)
INPS - disability: Group D				
Disabled below poverty line without supplement	33.1	59.6	88.7	52.3
Disabled above poverty line with accrued pension	67.4	126.2	157.9	48.4
Disabled above poverty line without pension	220.0	236.1	252.3	40.9
Civil disability: Group D 2/				
Disabled below poverty line without pension	49.2	49.2	87.3	55.0
Disabled above poverty line without pension	210.7	210.7	236.5	55.0

Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

1/ Average income—from outside sources (column 1), from outside sources plus accrued pension (column 2), and after public support (column 3)—as percent of average poverty lines applying to each group. Column 4 gives the average benefit paid to each group as percent of the individual poverty line (around Lit 8.5 million, in 1996).

2/ Outside resources include long care allowances.

Table 15. Italy: The Effectiveness of the Safety Net—The Current System

	Poverty Ratio 1/	Poverty Gap 2/	Over Protection 3/	Non- Compliance 4/
Old-age seniority supplements	9.1	32.7	84.5	5.6
Survivors supplements	25.0	17.4	39.5	4.9
INPS-disability pensions				
Currently disabled (Group D)	20.6	25.5	73.8	8.5
Currently nondisabled (A+B+C)	15.0	19.2	32.1	9.9
Social pensions	20.7	16.6	30.8	13.1
Civil disability				
Currently disabled (Group D)	26.8	32.9	35.1	0.0
Currently nondisabled (A+B)	15.8	7.7	49.8	0.0

Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

1/ Number of recipients living in households with income after subsidy below corresponding poverty threshold (as percent of covered households).

2/ Average gap between poverty threshold and income after subsidy expressed as percent of corresponding average poverty threshold.

3/ Number of recipients living in households with income after subsidy above 2.5 times the corresponding average poverty threshold (as percent of covered households).

4/ Number of recipients under reporting sources of taxable income (as percent of covered households).

Table 16. Italy: The Effectiveness of the Safety Net

(In trillions of lire)

	Estimated Poverty 1/ (1)	Effective Adjustment 2/ (2)	Spent Resources 3/ (3)	Effective- ness Rate 4/ (4) (In percent)	Over- Protection 5/ (5) (In percent)
Before subsidies 6/ Excluding INPS currently disabled	17.3 14.2	0.0	0.0	0.0	0.0
Current system 7/ Excluding INPS currently disabled 8/	7.4 6.0	9.9 8.2	42.2 42.3	23.5 19.4	76.5 80.6
Minimum income benchmark system 7/ Excluding INPS currently disabled 8/	5.6 4.6	11.7 9.6	34.5 32.8	33.9 29.3	66.1 70.7

Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

1/ Total poverty gap of households covered by the current system.

2/ Difference between before-subsidy and after-subsidy poverty gap.

3/ Total amounts spent in 1996 for old-age/seniority and survivors supplements to the minimum pension; INPS disability allowances, civil disability pensions and social pensions.

4/ Effective adjustment as percent of resources spent: (2)/(3).

5/ One minus (4).

6/ Includes income from outside sources plus accrued pensions.

7/ Figure on spent resources excludes accrued disability pensions paid by INPS.

8/ Figure on spent resources includes accrued disability pensions paid by INPS to nondisabled.

Table 17. Italy: The Effectiveness of the Safety Net—The Minimum Income Benchmark

	Poverty Ratio 1/	Poverty Gap 2/	Over Protection 3/
Old-age and seniority	8.9	22.7	10.0
Survivors	15.2	19.9	29.4
INPS-disability			
Currently disabled (Group D)	6.7	26.8	19.3
Currently nondisabled (A+B+C)	26.1	20.7	13.1
Social pensioners	5.6	20.1	15.9
Civil disability			
Currently disabled (Group D)	24.5	13.5	37.5
Currently nondisabled (A+B)	16.8	9.0	37.4

Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

1/ Number of recipients living in households with income after subsidy below corresponding poverty threshold (as percent of covered households).

2/ Average gap between poverty threshold and income after subsidy expressed as percent of corresponding average poverty threshold.

3/ Number of recipients living in households with income after subsidy above 2.5 times the corresponding average poverty threshold (as percent of covered households).

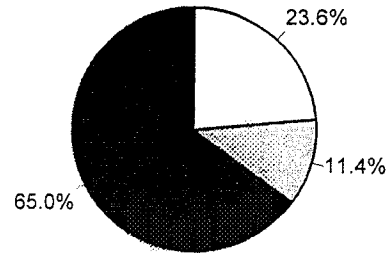
4/ Number of recipients under reporting sources of taxable income (as percent of covered households).

Figure 12. Italy: Selected Welfare Benefits, 1996

OLD AGE: SUPPLEMENTARY BENEFITS

(Total 1996 expenditure: Lit 10.2 trillion; 0.6% of GDP)

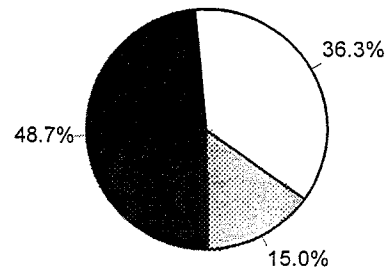
- Group A - below poverty line without supplementary benefit
- Group B - above poverty line with accrued pension
- Group C - above poverty line without accrued pension and supplementary benefit



SURVIVORS: SUPPLEMENTARY BENEFITS

(Total 1996 expenditure: Lit 5.3 trillion; 0.3% of GDP)

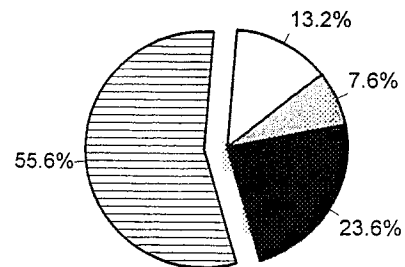
- Group A - below poverty line without supplementary benefit
- Group B - above poverty line with accrued pension
- Group C - above poverty line without accrued pension and supplementary benefit



INPS DISABILITY PENSIONS

(Total 1996 expenditure: Lit 35.7 trillion; 1.9% of GDP)

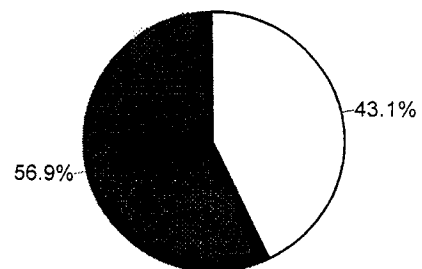
- Group A - currently non-disabled below poverty line without supplementary benefit
- Group B - currently non-disabled above poverty line with accrued pension
- Group C - currently non-disabled above poverty line without accrued pension and supplementary benefit
- Group D - currently disabled



SOCIAL PENSIONS

(Total 1996 expenditure; Lit 3.4 trillion; 0.2% of GDP)

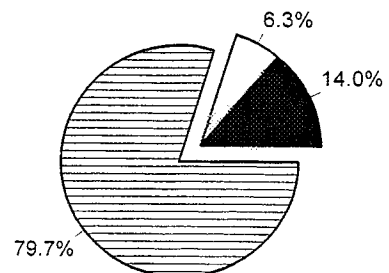
- Group A - below poverty line without pension
- Group B - above poverty line without pension



CIVIL DISABILITY PENSIONS

(Total 1996 expenditure: Lit 7.5 trillion, 0.4% of GDP)

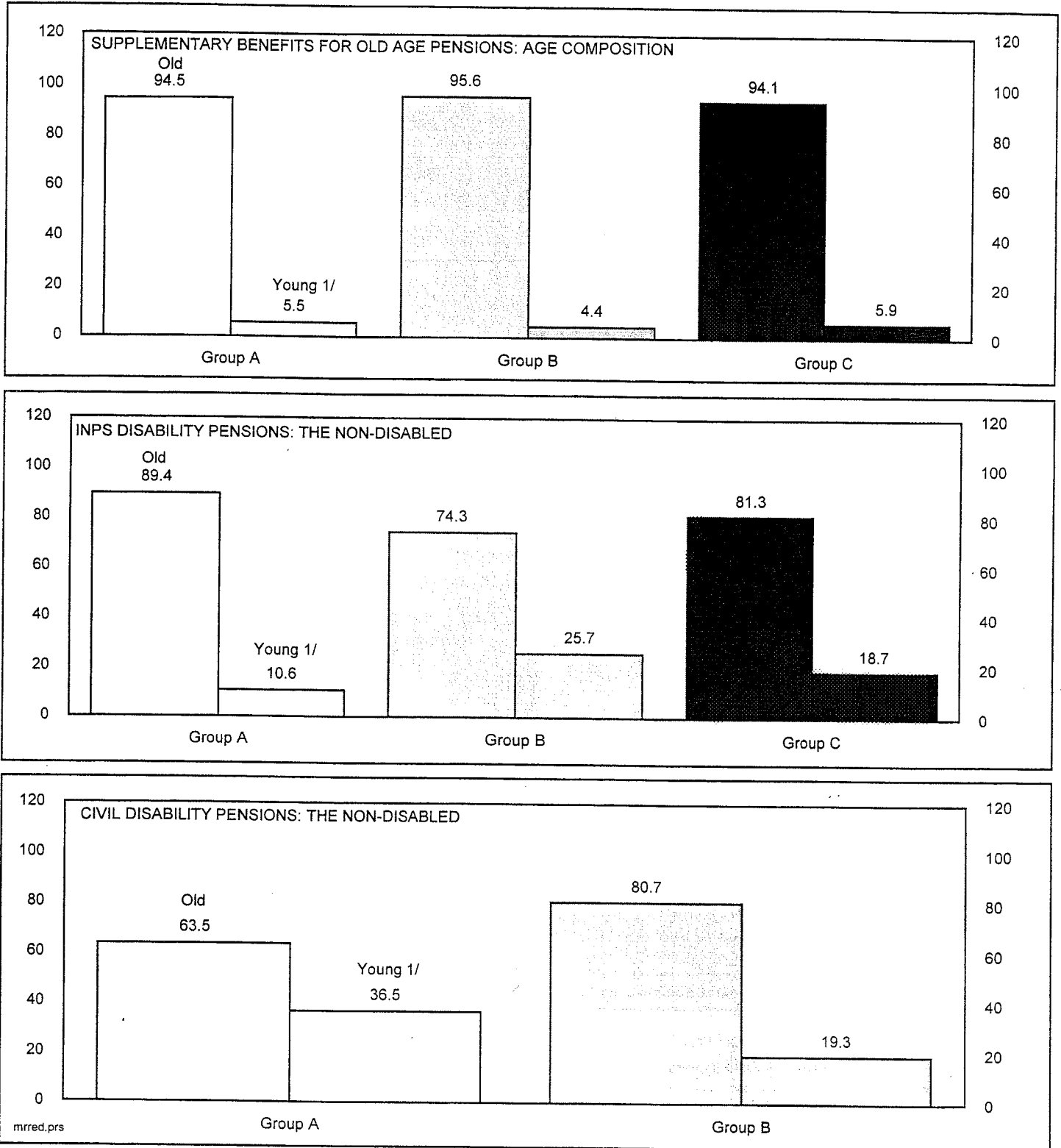
- Group A - currently non-disabled below poverty line without pension
- Group B - currently non-disabled above poverty line without pension
- Group D - currently disabled



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Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

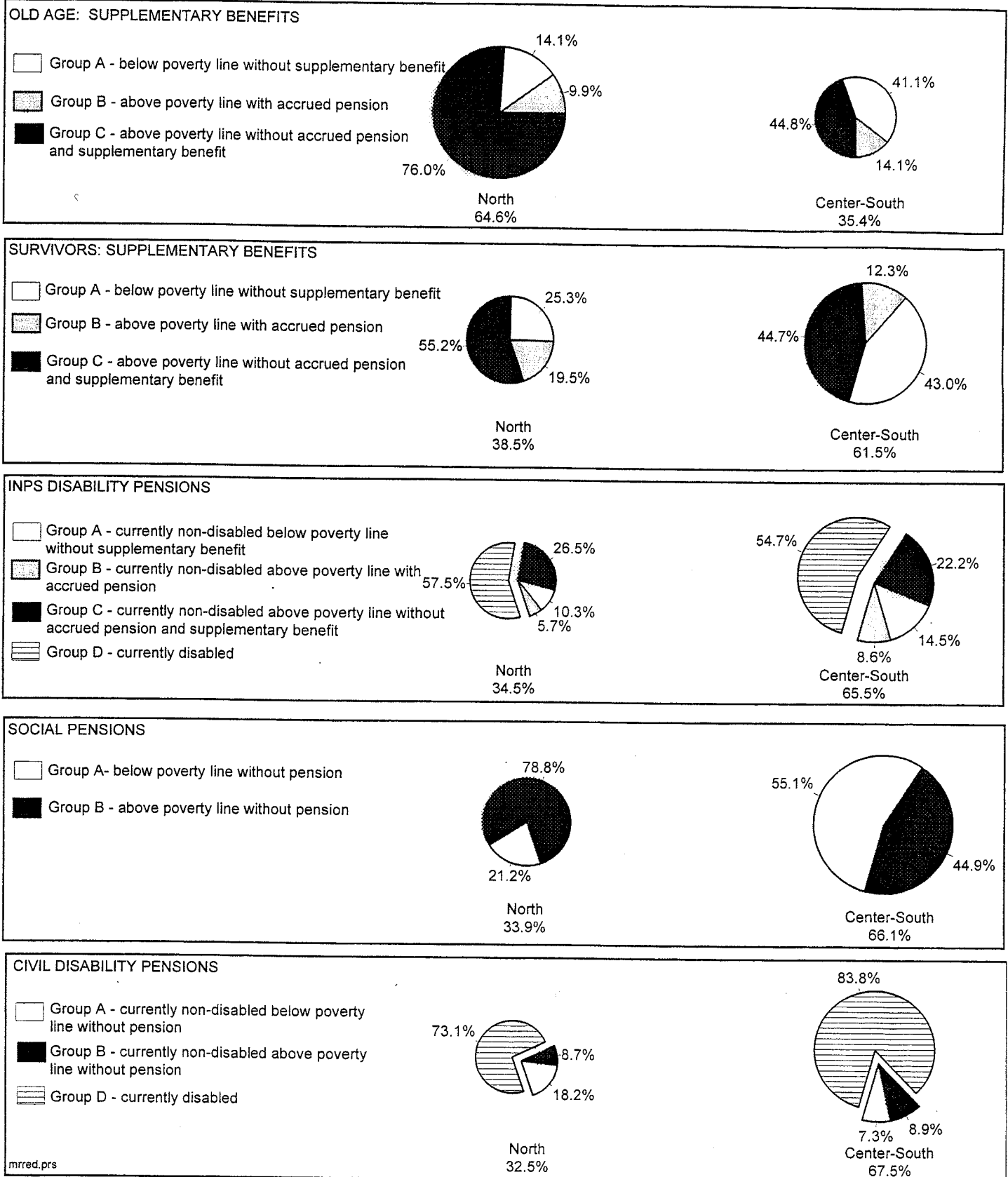
Figure 13. Italy: Age Composition of Selected Welfare Benefits, 1996



Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

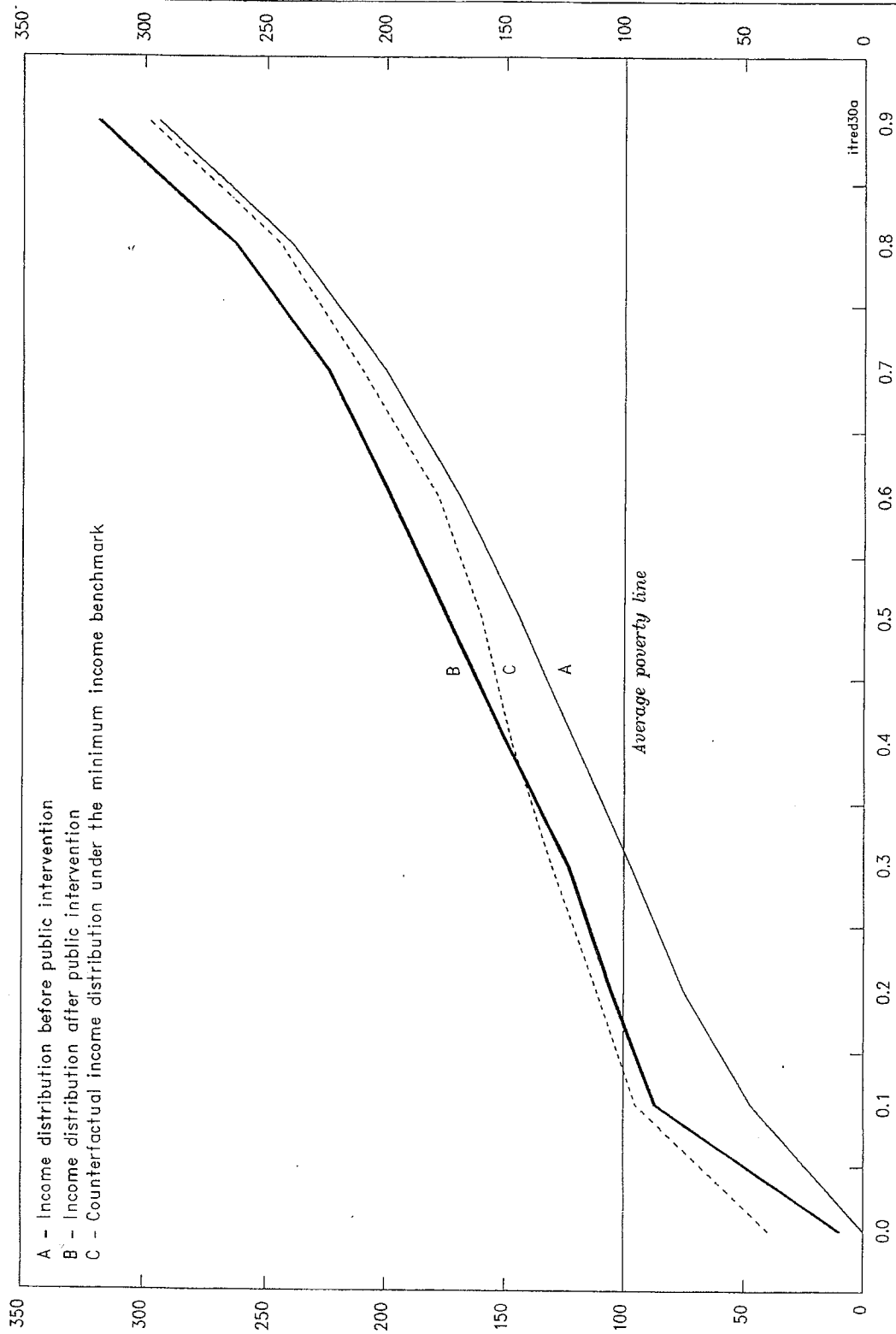
1/ Below standard retirement age.

Figure 14. Italy: Geographical Distribution of Selected Welfare Benefits, 1996.



Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

Figure 15. Italy: Measuring Target Efficiency: the Current Regime and the Minimum Income Benchmark System. 1/
(Percentiles of distributions as percent of average poverty lines)

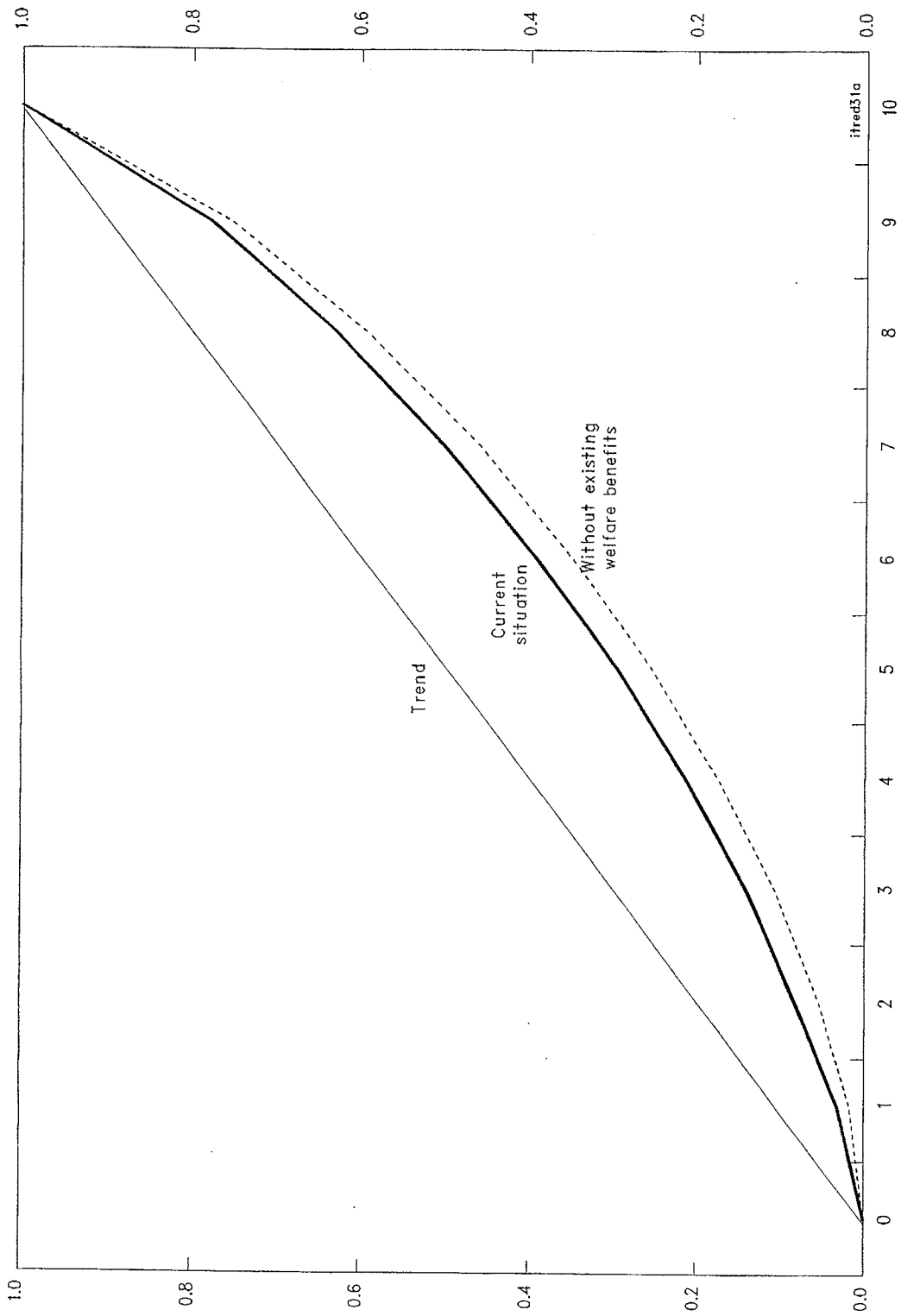


A - Income distribution before public intervention
B - Income distribution after public intervention
C - Counterfactual income distribution under the minimum income benchmark

Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

1/ See text for methodological explanation and interpretation of curves.

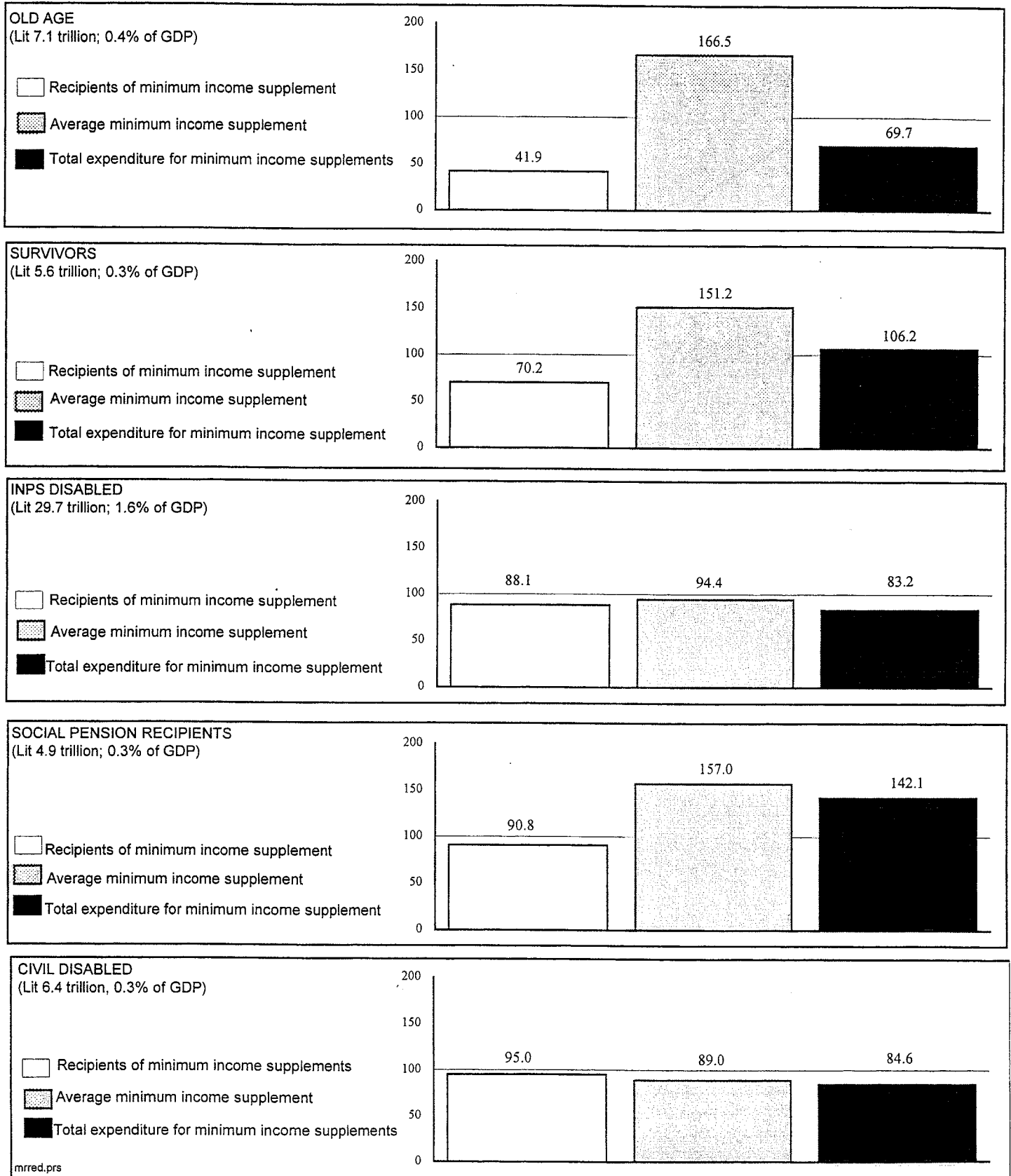
Figure 16. Italy: Distribution of Equivalent Income Among Covered Households: Cumulative Decile Shares. 1/



Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

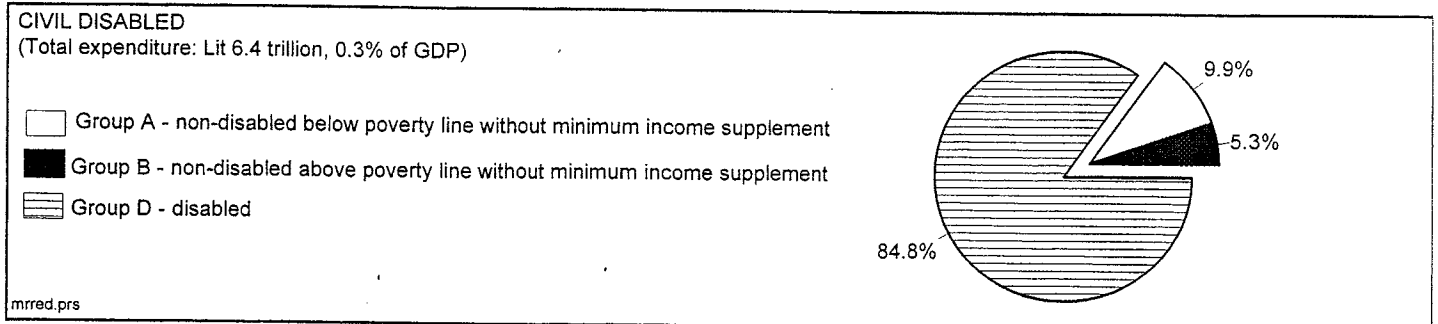
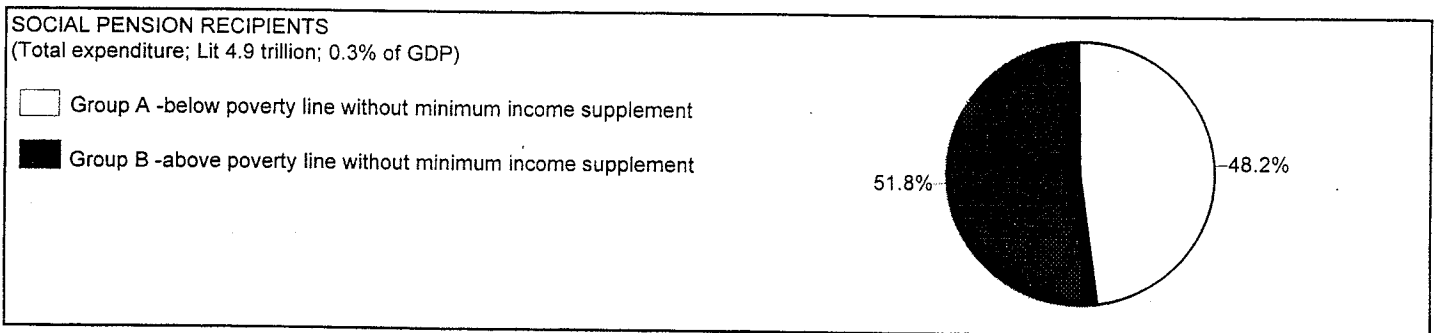
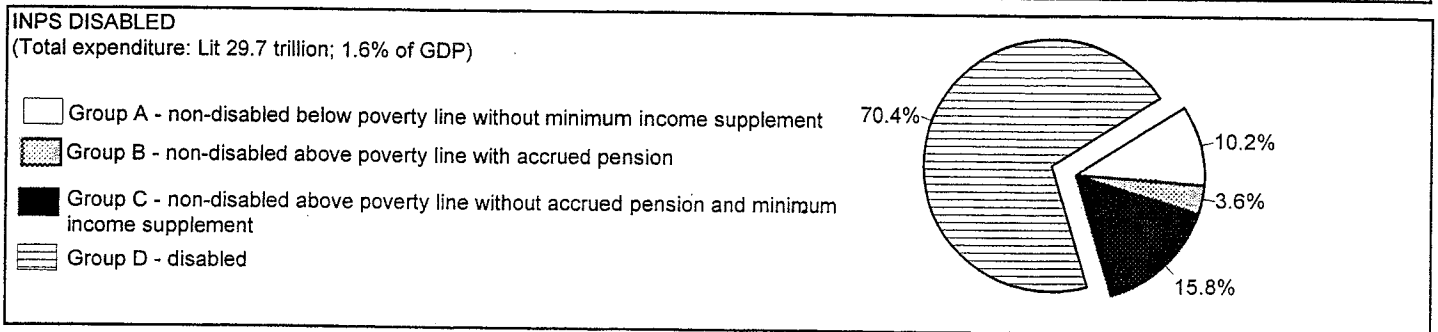
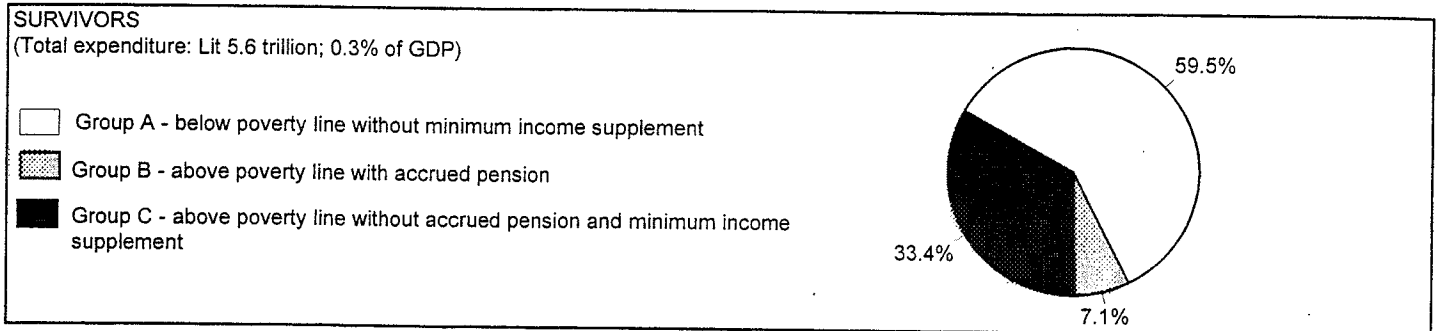
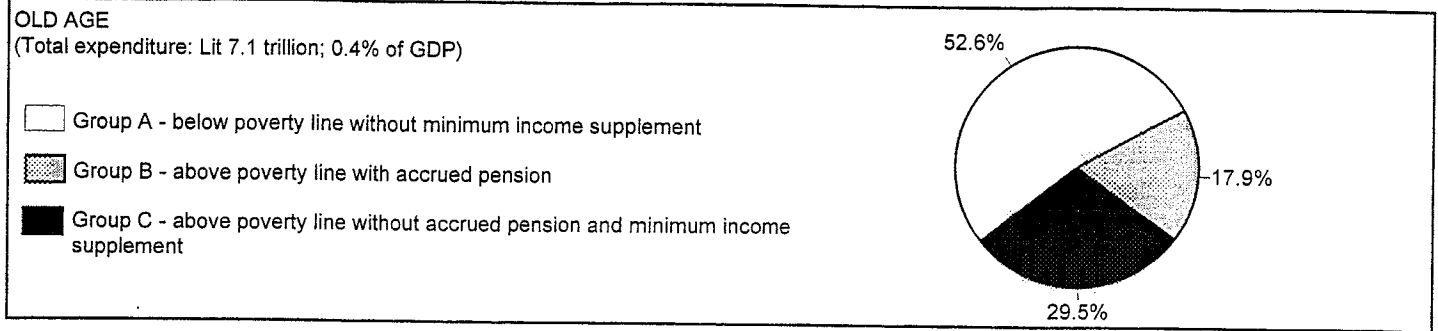
1/ See text for methodological explanation and interpretation of curves.

Figure 17. Italy: Minimum Income Benchmark: Populations Covered, Average Individual Payments and Total Spending (As percent of current levels)



Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

Figure 18. Italy: Minimum Income Benchmark: Composition of Outlays, 1996.



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Source: Elaborations on survey data on households' incomes and wealth (Bank of Italy, 1997).

Sample Selection and Imputation of Benefits

163. In order to minimize the error of including in the selected sample observations which should be discarded, and of excluding answers that should instead be taken into account, a series of filters were applied in the process of sample selection. Once the subpopulation covered by the instruments under review was identified with a sufficient degree of confidence, the problem of estimating the accrued part of the benefits (as opposed to the possible supplement received) was tackled through an imputation procedure. This appendix describes the filters employed in assembling the samples and the imputation technique to estimate the composition of the transfers.

Sample selection

164. The following procedure guided the choice of the observations to include in the five different samples.

- Old-age, seniority and survivors' pensions subject to supplementary benefits (*integrazioni al minimo*) were identified by selecting only people reporting pensions of a unit value comprised within a narrow range above and below the 1996 guaranteed minimum, to allow for rounding and errors in the division of the yearly amounts—paid on a 13-month basis—by twelve.⁷⁵ The guaranteed minimum setting the central value of the range has been made conditional on the age of the interviewees, as all pensioners meeting eligibility criteria for the minimum supplements above certain age limits (60 and 65) are entitled to additional supplements conditional on more restrictive income tests.⁷⁶
- INPS contributory disability pensions were identified by discarding recipients below 20 years of age, on the assumptions that a minimum vesting period of 5 years would rule out the event of an INPS allowance being paid to younger people. The excluded observations were automatically included among the cases of “civil disability” allowances.
- The social pension subsample was constructed by first applying a unit-value test to the reported pension, with the same tolerance interval as for old-age supplements, and by then

⁷⁵This screening procedure does not allow to identify pensions receiving prorated supplements. Resort to the latter is made when the full payments of the subsidy would cause the cumulated own-plus-pension income to exceed the family income limit. However, since the incidence of such prorated supplements over the total is lower than 10 percent, the error involved in disregarding them is accordingly of limited substance. See Box 1 for the eligibility rules governing supplements to old-age, seniority, and survivors' pensions.

⁷⁶For people above 65 this further allowance amounts to Lit 1.6 million per annum.

excluding people below 65.⁷⁷ This reduced the number of observations considered as genuine “social pensions” to almost half the original uninformed selection. Coupled with the more general problem of underrepresentation of very poor people within the sample as a whole, the limited number of observations of “social pensions” may have significantly biased our findings in this area, and should accordingly be borne in mind when interpreting results. Among the discarded observations, the ones passing the unit-value test applied to the old-age and survivors’ benefits (described above) were automatically included in the subsample of reference for the analysis of supplements to contributory pensions.

165. The raw observations surviving the described subsample selection mechanisms were then grossed-up through a two-stage procedure: first by stratum, using the ratio of total families to interviewed units as weight; secondly, by type of benefit, by multiplying the number obtained in the first stage by the ratio of the total recipients of each transfer—as reported by the National Statistical Office, ISTAT—to the observations in each of the subsamples created. A final re-weighting of the single observations was performed using the distribution of total pensioners by age and geographical area, extracted from the National Pension Registry (*Casellario nazionale dei pensionati*).⁷⁸

Imputation of benefits

166. Under the household surveys conducted by the Bank of Italy up to 1995, the problem of estimating the accrued part of old age, seniority, survivors’ and INPS disability pensions could not have been solved without relying on external sources. A new question on the years of paid contributions added to the last questionnaire (1995) made it possible to reach an “internal” estimate of the share of the benefit received ascribable to the accrual of pension rights—and thus, by difference, of the amount of the supplementary transfer received.

167. The estimation procedure followed to solve the problem of imputation involved the following steps:

- (i) The value of the pension received in the first year following retirement was estimated by discounting the amount in payment in 1995 by the average nominal growth factor of minimum pensions between the indicated year of retirement and 1995.
- (ii) An estimate of the last gross earnings received was obtained by dividing the amount simulated in step (i) by the replacement rate reported by the interviewee.

⁷⁷A further test based on the number of years of contribution did not prove particularly helpful.

⁷⁸This distribution was kindly provided by INPS.

(iii) The calculation of pensionable earnings—an average of the last five gross wages received before retirement—was conducted by applying to the result of step (ii) the average nominal growth rate of earnings (as recorded by the National Statistical Office) between the year of retirement and each single year taken into account as part of the individual average.

(iv) The imputed accrued benefit was estimated by multiplying the individual pensionable earnings, as calculated in (iii) above, first by the accrual factor guaranteed by the system to the different categories of workers, and then by the number of paid contributions as available in the new version of the questionnaire.

(v) The difference between the reported pension and the imputed accrued rent, if positive, was considered the value of the individual supplementary benefit to the minimum.

168. As the response rate corresponding to the question on the years of contributions turned out to be particularly low—probably due to the limit imposed on the total number of questions submitted to low-income pensioners—and since no such question was posed to the recipients of INPS disability pensions, the missing values of the accrued rents were filled by imputing the average yearly amounts distributed by type of benefit and recipients' age as reported in INPS (1996).⁷⁹

⁷⁹INPS (1996). In the (few) cases in which the imputed accrued pension turned out to be greater than the pension indicated, the supplement was set equal to zero.

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III. A PERSISTENTLY LARGE SURPLUS? THE CURRENT ACCOUNT FROM A SAVING-INVESTMENT PERSPECTIVE⁸⁰

A. Introduction

169. Italy's external current account balance has undergone major swings in recent years (Figure 19, upper panel). Following a steady deterioration as from the mid-1980s, the current account deficit peaked at 2½ percent of GDP in 1992. In the wake of the lira's exit from the ERM in September 1992, the current account exhibited a sharp improvement, turning into a surplus in 1993, which kept steadily widening even against the backdrop of the lira's strengthening as from early 1995, to reach a level of 3.3 percent of GDP by 1996, a historical peak for Italy and at the time the largest external imbalance among G-7 countries.⁸¹

170. Past work by the staff has sought to gain an insight into the level of the current account balance that should be viewed as consistent with the Italian economy's medium-term economic fundamentals. Caramazza and Levy (1997) report results, based on a macroeconomic balance approach, on the medium-term sustainable level of the current account. The methodology is based on the estimation of saving and investment functions for all the G-7 countries, employing panel estimation techniques and imposing appropriate cross-equation restrictions, including a global adding-up constraint. The explanatory variables considered include the fiscal position, demographic variables, relative country size, and output gaps, all expressed as differences between own-country variables and global averages.⁸² On the basis of this methodology, and assuming a fiscal path that roughly corresponds to the Italian authorities' medium-term plan, the authors conclude that a current account surplus of between 1½ and 2 percent of GDP would be consistent with Italy's medium-term fundamentals. This estimate is considerably below the present level of Italy's current account surplus.

171. Looking forward, there is a striking lack of consensus among forecasters as to the medium-term evolution of Italy's current account balance. On the one hand, Italian official forecasts, together with the OECD and a number of private forecasters, envisage a further **widening** of the current account surplus over the medium term, driven in large part by an acceleration of exports as demand in major European trading partners picks up. Against the

⁸⁰Prepared by Ioannis Halikias.

⁸¹The current study is limited to the period through 1996, for which official data is available; staff estimates of the outcome for 1997 suggest a narrowing of the surplus to 2.7 percent of GDP, still among the largest in the G-7.

⁸²For a more detailed discussion of the methodology and a summary of empirical results for the G-7 countries, see "Exchange Rate Assessment: Some Recent Extensions and Applications of the Macroeconomic Balance Approach," IMF Occasional Paper, forthcoming.

estimates of Italy's equilibrium current account referred to above, such an outlook would raise the question of a possible undervaluation of the lira. On the other hand, staff (and a few other private) projections envisage a steady **narrowing** of the current account surplus, in the staff's case, to under 2 percent of GDP by the end of the projection horizon, well inside the range of estimates of Italy's equilibrium current account balance. The staff projection draws upon the implications of a fairly standard trade model, and is mainly predicated on the impact of a gradual closing of Italy's output gap, estimated to be wider at present in relation to a trade-weighted average of its partners, while also taking into account the lagged impact of past exchange rate changes. A (selective) summary of alternative projections of the medium-term evolution of Italy's current account is provided in the tabulation below:⁸³

Italy: Projected Current Account Balance

(In percent of GDP)

	1997	1998	1999	2000	2001	2002	2003
Official	3.4	3.6	3.8	3.9	3.9	n.a.	n.a.
Central Europe	3.6	3.9	4.3	5.0	n.a.	n.a.	n.a.
OECD	3.6	4.1	4.6	n.a.	n.a.	n.a.	n.a.
IMF	2.7	2.6	2.5	2.5	2.3	2.0	1.8

172. This chapter attempts to explore a set of factors that may have been relevant in accounting for the recent trends of the current account, with an eye to gaining some additional insight into its likely evolution over the medium term. The factors to be examined can be expected to have had an impact on **key components of Italy's saving-investment balance** during the period under consideration; this approach could thus be viewed as complementing an analysis based on trade flows, while at the same time possibly offering a more solid basis for an assessment of the likely future trends of Italy's external balance.

173. In a nutshell, it will be argued that the post-1992 trends of the saving-investment balance were in some important respects rather exceptional, reflecting in large part a set of factors which, while quantitatively important, were of a transitory (and reversible) nature. The implication of this analysis would then be that one may expect a narrowing of the current

⁸³The sources are as follows: 1997 Convergence Program; Centro Europe Ricerche, Report No. 5, November 1997; OECD Economic Outlook, December 1997; and latest staff projections. As may be noted, most forecasts start from a higher estimated surplus in 1997 than that of the staff, which is based on more recent data. Nonetheless, what is of interest in this context is the divergent trend of the projections.

account surplus over the medium term, without requiring any appreciable change in the lira's effective exchange rate—thus underpinning the staff assessment (Caramazza and Levy, 1997) that the effective value of the lira is broadly consistent with medium-term fundamentals.

174. The chapter is organized as follows: Section B provides a brief summary of recent trends in the various components of saving and investment. Section C discusses the contribution of public saving and the extent of offset to changes in this component by private saving. Section D focuses on a number of factors that could have had an impact on private saving. In this regard, trends in the business component of private saving emerge as particularly important; the examination of a number of factors affecting business saving, together with the question of its interaction with household saving, are taken up in Section E. Section F briefly summarizes empirical findings pertaining to the behavior of private investment, and Section G summarizes the empirical findings and discusses the relevance for the medium-term outlook of the current account.

B. Recent Trends in Saving and Investment

175. The trends in Italy's current account are by definition mirrored in the evolution of the saving-investment balance (two panels of Figure 19). During the post-1992 period in particular, both saving and investment contributed to the observed widening of the current account surplus. Thus, between 1992 and 1996 gross national saving rose by 3.2 percentage points of GDP while gross investment fell by 2.2 percentage points of GDP. These overall trends, however, mask important differences with regard to individual components of the saving-investment balance (Figure 20 and table below).

Saving-Investment Balance, 1992-96

(Cumulative change, percent of GDP)

Saving rate	3.2	Investment rate	-2.2
Public	3.8	Public	-0.8
Private	-0.7	Private	-1.4
Household	-3.9		
Enterprise	3.3		

176. On the **saving** side, the increase in public saving, associated with the fiscal consolidation effort, was clearly an important part of the story, amounting to 3.8 percentage points of GDP between 1992 and 1996. This increase, however, was virtually offset by a decline in household saving, which fell by 3.9 percentage points of GDP during the same period, reaching a historical trough of 11.7 percent of GDP by 1996. In this setting, the sharp

rise in business saving, by 3.3 percentage points of GDP over the period, was instrumental in bringing about the observed overall increase in the national saving rate.

177. The stylized saving trends described in the previous paragraph raise a number of analytical issues. First, to what extent does the observed interaction between private and public saving in the post-1992 period deviate from the patterns observed over a longer historical period? Second, the trends in business saving during the period in question appear to be an important determinant of the evolution of private (and national) saving. While it may be natural to expect a rise in the business component of private saving in line with a recovery of profitability (especially in the traded goods sector), the magnitude of the increase is striking. In addition, an evaluation of the interaction between business and household saving appears important for an assessment of the net impact on the current account of factors that may have been bolstering business saving during the period in question. These issues are taken up in the next two sections of the chapter.

178. On the **investment** side, on the other hand, both its private and public components contributed to the decline during the 1992–96 period (Figure 20). The fall in public investment, by 0.8 percentage points of GDP, reflects the burden imposed on this category of spending in the process of fiscal consolidation. On the other hand, the sharp fall in private investment, by 1.4 percentage points of GDP, constitutes a trend that at first sight appears more difficult to explain, especially as it occurred in the context of sharply rising business saving (and business profitability).⁸⁴ This trend is in sharp contrast to the historical experience of the Italian economy, for which a strong positive correlation between investment and profits has been documented by a number of studies. A discussion of potential factors that could account for the sluggishness of private investment, both as a ratio to GDP and in relation to business profits, is taken up in Section F of the chapter.

C. The Role of Public Saving

179. This section explores the role of fiscal policy in explaining the trends of the current account since 1992. A variety of theoretical models would suggest a strong positive relation between a country's fiscal balance and its external balance. Particularly influential among these has been the Mundell-Fleming model, which in essence constitutes a straightforward extension of the textbook IS-LM model to an open economy.⁸⁵ Under floating exchange rates, the model would predict that an expansionary fiscal policy would tend to raise domestic interest rates relative to the rest of the world, resulting in an appreciation of its currency and a

⁸⁴A sense of the magnitude of the shift in question can be obtained by looking at the ratio of business saving to business investment: this ratio rose from 60 percent in 1992 to 122 percent by 1996.

⁸⁵For original formulations of the model, see Fleming (1962) and Mundell (1963).

deterioration of its current account.⁸⁶ Despite its essentially static nature, the Mundell-Fleming model continues to enjoy considerable popularity for the purposes of policy analysis.

180. A second influential family of theoretical and empirical models, often dubbed the “macroeconomic balance approach,” is directly concerned with the impact of a fiscal expansion on the current account balance.⁸⁷ These models stress the implications of the identity between the current account balance and the gap between domestic saving and domestic investment. In these models, a fiscal expansion, by lowering national saving, requires an inflow of foreign capital in order to maintain domestic investment at its desirable level. Such a capital inflow in turn necessitates an appreciation of the domestic currency, thereby entailing a deterioration of the current account of the country concerned.

181. Other models of the current account, which also emphasize its saving-investment dimension, are less unambiguous about the impact of a fiscal expansion on the current account balance. An important case in point is the intertemporal model, discussed more fully in Appendix II. This approach, which views the current account as the outcome of an intertemporal optimization by economic agents, emphasizes the implications of households attempting to achieve a smooth consumption path over time. In such a setting, current account imbalances (in either direction) can arise in response to deviations of income, or other relevant economic variables, from their “permanent” levels. Under these conditions, the impact of a fiscal expansion on the current account will in general be ambiguous, depending on its impact on the government’s intertemporal budget constraint, and on the extent to which it is viewed as temporary or permanent; the implications for long-term fiscal sustainability are also particularly relevant for models of this type.

182. Even in the case of models which unambiguously predict, however, a strong link between the fiscal position and the current account, an important assumption is that a widening of the budget deficit, entailing a fall in public saving, is not offset by a rise in private saving, i.e., that there is no “Ricardian equivalence.”⁸⁸ While the **Ricardian equivalence**

⁸⁶A difficulty regarding the direct applicability of the Mundell-Fleming model to the Italian experience is immediately apparent in this connection: whereas the model specifies a currency appreciation as the key mechanism propagating the effect of a fiscal expansion, Italy has typically tended to experience capital outflows and a lira depreciation in the wake of a loosening of its fiscal policy stance. The role of confidence factors and large interest rate premia in this respect was examined in the World Economic Outlook of October 1995 (see annex on “Exchange Rate Effects of Fiscal Consolidation.”)

⁸⁷For a representative model of this type, see Knight and Masson (1986, 1987).

⁸⁸This assumption has been forcefully challenged by Barro (1974). This work proposed an overlapping generations model in which households maximize their utility, which depends on
(continued...)

argument was originally developed in the context of a closed economy, it has direct bearing on the impact of fiscal policy on the external current account. If empirically validated, it would suggest that an increase in public saving would have no impact on national saving, and hence on the current account. A test of the proposition would thus appear to be central to the investigation at hand, given the substantial increase in Italy's public saving rate during the post-1992 period.

183. The **standard test for Ricardian equivalence** is straightforward. It entails regressing private saving as a ratio to GDP (SPRR) on public saving as a ratio to GDP (SGR), with the null hypothesis of full Ricardian equivalence implying a coefficient on SGR of -1.⁸⁹ This relation was estimated by ordinary least squares over the period 1981–96 using quarterly data.

The estimation results are as follows (t-statistics in parentheses):

$$\text{SPRR} = 0.217 - 0.820 \text{ SGR}$$

(26.9) (5.7)

$$R^2 = 0.42$$

$$\text{SE} = 0.0089$$

$$F(2,62) = 144.4$$

$$\text{DW} = 1.8$$

184. The above estimation results are quite striking, in suggesting a **very substantial degree of Ricardian offset** to a change in public saving by private saving. Specifically, the point estimate of the coefficient of the SGR variable suggests that an increase in public saving of 1 percentage point of GDP tends to be associated with a decline in private saving of over 0.8 percentage points of GDP. Indeed, the null hypothesis that this coefficient is equal to 1 cannot be rejected at conventional significance levels.

185. The above results contrast with the conclusions of past empirical work, which have generally tended to suggest much lower Ricardian offset coefficients for Italy,⁹⁰ broadly in line

⁸⁸(...continued)

their lifetime consumption path and that of their descendants, taking fully into account their own and the government's intertemporal budget constraint. In such a setting, and under certain assumptions, including non-distortionary taxation and absence of liquidity constraints, an increase in the government deficit financed by the issue of debt is shown to result in an exactly offsetting increase in private saving, as households take into account the necessary increase in the tax burden in the future to pay off the government debt.

⁸⁹An entirely equivalent test sometimes used in the literature employs national saving as the dependent variable, with full Ricardian equivalence implying a coefficient of 0 on SGR.

⁹⁰See, for example, Modigliani and Jappelli (1987) and Modigliani, Jappelli and Pagano

(continued...)

with other industrial countries. While this difference may reflect in part differences in estimation procedures (or even different data sources), a case can be made that the differences in the empirical results may be attributable to the different time period considered. To illustrate this point, the above equation was estimated over different (overlapping) subperiods. The estimated coefficient of the SGR variable, together with some diagnostic statistics, is reported in the tabulation below (t-statistics in parentheses):

	Sample			
	1966-96	1971-96	1976-96	1981-96
Constant	0.257 (74.4)	0.245 (18.9)	0.231 (16.9)	0.217 (26.9)
SGR	-0.357 (5.6)	-0.521 (3.9)	-0.679 (5.0)	-0.820 (5.7)
R ²	0.21	0.12	0.14	0.42
SE	0.0161	0.0207	0.0198	0.0089

186. The estimation results summarized above shows a distinct upward trend for the estimated SGR coefficient over the successive subperiods, that is, the degree of Ricardian offset to a change in public saving has been steadily increasing over time, a point to which we shall return further down. The above pattern would also suggest that empirical results based on very long samples may not be particularly reliable for the purposes of drawing inferences about the future evolution of national saving.

187. The trend of private saving in the post-1992 period does not appear fully consistent with the high degree of Ricardian offset suggested by the empirical results based on the more recent sample. In particular, while public saving rose by 3.8 percentage points of GDP between 1992 and 1996, private saving fell by only 0.7 percentage points of GDP in the same period, much less than a Ricardian offset coefficient would imply. Casual inspection of the data would suggest that the "culprit" has to be sought in the business component of private saving, which rose by 3.3 percentage points of GDP during 1992-96.

188. This point can be illustrated by regressing the household saving rate (SHR) on the public saving rate. The estimation results, over the period 1981-1996, are the following (t-statistics in parentheses):

⁹⁰(...continued)
(1985).

$$\text{SHR} = 0.082 - 0.960 \text{ SGR}$$

(4.0) (2.9)

$R^2 = 0.22$

$\text{SE} = 0.0165$

$F(1,62) = 41.3$

$\text{DW} = 1.6$

189. On the basis of these results, it may be seen that the household saving rate, which fell by 3.9 percentage points of GDP in the post-1992 period, behaved very much as would be predicted by the size of the estimated SGR coefficient—indeed, the actual fall in the household saving rate slightly exceeded the predicted value. This would suggest that, during the period under discussion, special factors sustaining business saving may have been at work. An empirical investigation of the relevance of some such potential factors is taken up in the next two sections of this chapter.

190. Before turning to the behavior of business saving, however, it may be worthwhile to examine the question as to why Italian economic agents may have been increasingly behaving in a more Ricardian fashion over time. In this regard, a relevant factor may relate to the **changing incidence of liquidity constraints**. While it may be difficult to argue that liquidity constraints have ceased to be important, especially given the very low levels of consumer credit by international standards, it may still be the case that they may have become somewhat less binding over time. In this regard, financial liberalization and innovation, especially pronounced during the period under review, but also increased international capital mobility, may have played an important role. From a theoretical perspective, this factor could have an important bearing on the relevance of the conclusions of past empirical work on saving behavior in Italy.⁹¹ While a general testing of the changing incidence of liquidity constraints is beyond the scope of this chapter, later sections will revisit the issue from somewhat different perspectives.

D. Recent Trends in Private Saving: The Role of the Labor Income Share and the Terms of Trade

191. This section attempts to provide a starting point in exploring potential explanations of the recent trends in private saving. In view of the rather atypical features of these trends in the post-1992 period discussed above, particular attention will be paid to factors that might be expected to have had a strong bearing during the period in question—specifically, shifts in **factor shares** and in the **terms of trade**. Moreover, given the apparent prominent role of

⁹¹For instance, Rossi and Visco (1992) relied on liquidity constraints to establish a link between rising social transfers (notably pensions) and falling household saving in the 1980s. Guiso, Jappelli and Terlizzese (1992) built a model centered on liquidity constraints to explain why private saving would fall in response to decelerating GDP growth. For empirical evidence of the importance of liquidity constraints based on micro data, see Nicoletti-Altimari and Thomson (1995).

business saving in accounting for the overall trends in private (and national) saving in recent years, particular attention will be paid in exploring the differential impact of these factors on the household and business components of private saving. It should be emphasized at the outset that the explanatory factors considered in this section cannot claim to be exhaustive. In addition, the particular empirical tests employed cannot be reviewed as relying on a single, well-specified theoretical model; instead, they consist of particular ad hoc specifications which could be viewed as consistent with a variety of models describing the underlying economic structure. Still, the factors taken into account can be regarded as sufficiently important, with potentially useful implications for the future evolution of saving, to warrant empirical appraisal along the lines pursued below.

192. The post-1992 period saw a substantial **shift in factor shares** in the Italian economy, entailing a major redistribution away from labor and in favor of capital. Thus, the share of labor in national income, which had remained relatively stable since the early 1980s, and had even been edging up between 1985 and 1992, declined sharply between 1993 and 1996, falling by as much as 6 percentage points of GDP in the span of just four years (Figure 3).⁹² This latter trend reflected a combination of massive labor shedding and a fall (or, at best, stagnation) of real wages following the 1993 wage negotiating agreement.

193. Swings in factor shares of this magnitude can be expected to have a pronounced impact on private saving. The literature postulates two channels through which this impact may be felt. In the first place, it can be argued that a shift of income toward capital may be expected to benefit higher-income households which have disproportionately large claims on capital. On the assumption that higher income households tend to have a lower marginal propensity to consume, such a shift would result in an increase in the overall private saving rate.⁹³ Under this channel, the impact of a fall in the labor income share on private saving would make itself felt primarily through the **household saving rate**. Secondly, it can be argued that a fall in the labor income share may boost private saving primarily through its impact on **business saving**, given its well-established negative correlation with business profitability. On the assumption that retained earnings tend to move together with profits,⁹⁴ the ensuing strengthening of profitability can be expected to lead to an increase in the private saving rate.

⁹²An interpretation of the level of the labor income share for the purposes of international comparisons should be made with great caution, given the much higher proportion of the self-employed in Italy relative to other industrial countries. This feature, however, should not have a significant bearing on the interpretation of the trend of the labor income share.

⁹³See Kaldor (1955) for an early formulation of this type of argument.

⁹⁴This issue is addressed more formally in the following section.

194. The estimation period (1981–96) also witnessed substantial shocks to the **terms of trade**. While developments in the post-1992 period were initially mixed in this regard, the terms of trade have displayed an improving trend since mid-1995. It has long been recognized that terms of trade shocks can be expected to have an effect on an economy's saving rate.⁹⁵ Early applications of Keynesian models by Harberger (1950) and Laursen and Metzler (1950) had modeled favorable terms of trade shocks of the type experienced by Italy in the recent period as an increase in real income, which could be expected to raise private saving in proportion to the marginal propensity to save. However, the relevance of terms of trade shocks in affecting the private saving rate remains intact in more recent theoretical models based on optimizing behavior; in this context, a terms of trade gain (loss) is typically modeled as a one-off net transfer (tax) from the rest of the world to the domestic economy. Indeed, a terms of trade shock is particularly relevant from the perspective of the intertemporal model of the current account, to be discussed in Appendix II, which emphasizes the distinction of permanent versus transitory income movements with respect to their impact on saving.⁹⁶ While the impact of terms of trade changes on private saving is typically modeled as working through the household saving rate, there does not seem to be an *a priori* reason as to why the business saving rate should not be affected in a similar direction.

195. The remainder of this section empirically tests the relevance of the shifts in factor incomes and in terms of trade in explaining Italian saving behavior. As a first step,⁹⁷ we attempt to evaluate the impact of changes in the labor income share (LAB) and the terms of trade (TERMS)⁹⁸ on the overall private saving rate (SPRR). The rate of growth of real GDP (DY) is also included in the explanatory variables: while its inclusion can be justified in terms of a wide range of theoretical models, in the case of Italy it can serve to capture the incidence of liquidity constraints, along the lines suggested by Guiso, Jappelli and Terlizzese (1992). We also include the public saving rate (SGR) to test whether the inferences of the previous section regarding the degree of Ricardian offset survive this present, more complete specification. Finally, a one-quarter lag of the private saving rate is included to capture partial-adjustment aspects of the mechanism in question.

⁹⁵It is of interest to note that the terms of trade problem had become an issue of policy debate before it became a subject of formal economic modeling: in essence, it lay the grounds of disagreement between Keynes and Ohlin on the price effects of German reparations in the 1920s.

⁹⁶On the incorporation of terms of trade shocks into the intertemporal model, see Svensson and Razin (1983).

⁹⁷Here, we follow closely the specification in McDonald (1990).

⁹⁸The TERMS variable is defined as a tax-equivalent injection.

196. The above relation was estimated using quarterly data, and correcting for first-order serial correlation of the residual over the period 1981–1996. The estimation results are as follows (t-statistics in parentheses):

$$\text{SPRR} = 0.214 - 0.235 \text{ LAB} + 0.150 \text{ TERMS} + 0.382 \text{ DY} - 0.782 \text{ SGR} + 0.426 \text{ SPRR}_{-1}$$

(4.1) (2.2) (2.6) (8.3) (7.4) (5.7)

$$R^2 = 0.95 \qquad \text{SE} = 0.0024 \qquad F(6,57) = 209.8 \qquad \text{DW} = 1.9$$

197. The above estimation results are quite in line with intuition. All estimated coefficients are statistically significant and have the expected sign. In line with the arguments presented in this section, a fall in the labor income share and an improvement in the terms of trade tend to raise the private saving rate. At the same time, the Ricardian offset coefficient implied by the coefficient of the SGR term, at close to 80 percent, is remarkably similar to that obtained in the simple regression of the previous section. Finally, the strong significance of the DY coefficient may suggest that liquidity constraints remain an important factor constraining the adjustment of private saving to its optimal level.

198. The above relationship was also estimated over a longer period, namely 1976–1996, in order to test for parameter stability.⁹⁹ The estimation results were as follows (t-statistics in parentheses):

$$\text{SPRR} = 0.170 - 0.165 \text{ LAB} + 0.108 \text{ TERMS} + 0.527 \text{ DY} - 0.509 \text{ SGR} + 0.422 \text{ SPRR}_{-1}$$

(2.9) (1.6) (2.1) (9.1) (4.6) (5.6)

$$R^2 = 0.96 \qquad \text{SE} = 0.0037 \qquad F(6,77) = 315.5 \qquad \text{DW} = 2.2$$

199. A few noteworthy points emerge from the estimation results based on the longer sample. First, the coefficients of the labor share and terms of trade variables, while remaining correctly signed, are lower in absolute value in relation to the estimates based on the more recent sample (and the coefficient of the LAB variable turns out to be marginally insignificant). Second, the coefficient of the SGR variable is now significantly lower in absolute value relative to the estimate based on the more recent sample; thus, the picture of a rising Ricardian offset to a change in public saving over time survives under the richer specification of this section. Third, the higher estimated coefficient of the DY variable relative to the more recent sample, while in principle subject to a variety of interpretations, could be taken to suggest that liquidity constraints, while remaining important, have tended to become less binding over time.

⁹⁹Once again, an Orcutt-Cochrane correction for first-order serial correlation of the residual was applied.

200. With the impact of changes in the labor income share and the terms of trade on the overall private saving rate fairly well established, it is worthwhile to explore whether the effects in question are primarily felt through the household or the business component of private saving. We present below the estimation results of the basic specification using, in turn, the business saving rate (SBR) and the household saving rate (SHR) as the dependent variable. Once again, the equation was estimated over the period 1981–1996 using quarterly data, a correction for first-order serial correlation of the residual was applied, and the numbers in parentheses are t-statistics.

$$\text{SBR} = 0.254 - 0.523 \text{ LAB} + 0.143 \text{ TERMS} + 0.541 \text{ DY} - 0.648 \text{ SGR} + 0.532 \text{ SBR}_{-1}$$

(3.6) (3.6) (2.1) (6.7) (4.7) (5.6)

$$R^2 = 0.97 \qquad \qquad \text{SE} = 0.0034 \qquad \qquad F(6,57) = 313.6 \qquad \qquad \text{DW} = 2.3$$

$$\text{SHR} = 0.147 + 0.134 \text{ LAB} + 0.089 \text{ TERMS} + 0.058 \text{ DY} - 0.347 \text{ SGR} + 0.616 \text{ SHR}_{-1}$$

(2.8) (1.4) (1.7) (1.2) (2.3) (4.8)

$$R^2 = 0.98 \qquad \qquad \text{SE} = 0.0032 \qquad \qquad F(6,57) = 678.6 \qquad \qquad \text{DW} = 2.6$$

201. The estimation results presented above suggest that the impact of changes in the labor income share and the terms of trade on the household and business component of private saving has been quite asymmetric. With regard to the labor income share, it is estimated to have a strong negative effect on the business saving rate. On the other hand, the estimated corresponding effect on household saving turns out to be statistically insignificant (and even wrongly signed), suggesting that the Italian data do not bear out the hypothesis of a lower marginal propensity to consume out of non-labor income. This may partly reflect the wide diffusion across the income distribution spectrum of public debt holders in the Italian economy. The estimation results thus suggest that the impact on private saving of the observed fall in the labor share since 1992 mainly worked through an increase in business profits and retained earnings. As to the impact of the terms of trade, the results are less pronounced, with the effect on both components of private saving working in the same direction. However, the impact on business saving is somewhat stronger, both in terms of the magnitude of the estimated coefficients and in terms of significant levels. This is a moderately interesting finding, given that it is customary to think of the terms of trade effects operating primarily via households rather than via firms.

E. Model-based Analyses of Business Saving: The Question of a “Corporate Veil”

202. In discussing the role of changes in the labor income share, the preceding section postulated that a fall in the labor share, by leading to an increase in business profits, should boost business saving by raising retained earnings. Indeed, the empirical results point to a strong negative correlation between the labor income share and business saving; on this basis, it was argued that the sharp fall in the labor share was an important factor accounting for the observed increase in business saving in the post-1992 period.

203. The empirical tests of the previous section were carried out through essentially ad hoc specifications, not based on **firm-optimizing behavior**. As such, these specifications could reveal little about the motives inducing firms to raise their level of saving in response to a rise in their profits, and could not provide an insight into potential circumstances that may alter the relationship between profits and retained earnings. This section attempts partly to remedy these shortcomings. It will summarize attempts to describe firms' dividend policies as the outcome of optimizing behavior, according to which dividend outlays, while in part influenced by business profits, also reflect a set of other factors, notably relating to certain features of the tax system. The section then attempts to verify how well certain testable implications of these models fit the Italian experience.

204. The discussion so far has treated business saving and household saving as being unrelated to each other. While convenient from a presentational standpoint, such an approach is clearly unsatisfactory. After all, corporations are owned for the most part by households, and their economic performance can be expected to have a bearing on households' behavior. A growing branch of the more recent literature has attempted to test the extent to which households use all the relevant information regarding firms' profitability and net worth in making their saving and investment decisions or, to borrow a commonly used expression, are successful in "piercing the corporate veil." In this section, we shall test the relevance of these considerations for the recent Italian experience; this test will, incidentally, allow an additional perspective into the issue of liquidity constraints.

205. The following discussion proceeds in two parts. First, we describe models that attempt to explain firms' dividend behavior and perform the related empirical tests. Second, we address the issue of the relevance of a corporate veil in the case of the Italian economy in recent years. In this connection, a practical problem should be mentioned at the outset. Due to the non-availability of detailed sectoral national accounts on a quarterly basis, the relevant econometric tests were performed using annual data. As this creates a serious scarcity of degrees of freedom, the empirical results of this section need to be interpreted with particular caution.

Determinants of dividend payout policy

206. The discussion and empirical testing of the factors influencing firms' payout policy for the purposes of this section draws heavily on a model analyzed in Poterba (1987). This model postulates that firms set dividends by balancing the dividend tax burden against the benefits of paying dividends. This formulation of the problem would suggest that changes in the dividend tax burden on dividends and capital gains will affect business saving. More formally, a representative firm is modeled as basing its dividend payout policy on its cost of capital, which depends on the dividend payout ratio, the effective tax rate on capital gains, and the dividend tax rate.

207. A fundamental problem in deriving a testable model of dividend payouts is the underlying difficulty of understanding why investors value dividends in the first place, as opposed to, for example, nondividend channels, typically free of tax, such as share repurchases, that firms could use to transfer cash to shareholders. As a result, no widely accepted theoretical model of payout behavior can be invoked to derive an unambiguously specified estimating equation. In this context, Poterba (1987) proposes a specification that assumes that firms target a long-run dividend level (D^*) which is a constant-elasticity function of equity earnings (Y) and the after-tax income associated with one dollar of corporate dividend payout relative to one dollar of corporate retention with resulting capital gains (denoted by θ). Thus, the long-run target level of dividend payout is given by:

$$\ln(D^*) = \alpha_0 + \alpha_1 \ln(Y) + \alpha_2 \ln(\theta) . \quad (1)$$

208. In turn, θ , often referred to as the “tax preference” parameter, is defined as a weighted average across shareholders of the after-tax income associated with dividend payout, divided by the after-tax income associated with undistributed profits:

$$\theta_t = \sum_{i=1}^S w_{it} * (1-m_{it}) (1-z_{it})^{-1} (1-\tau_t^u)^{-1} . \quad (2)$$

In this expression, m_{it} stands for the marginal dividend tax rate on class-I investors, z_{it} is the accrual-equivalent capital gains tax rate, τ_t^u is the rate of tax on undistributed profits, and S is the number of distinct shareholder classes, whether physical persons, other firms, or institutional investors, considered in the analysis. An increase in θ , either because of a fall in the dividend tax rate or because of a rise in the capital gains tax, is postulated to raise dividend payouts, given the level of profits.

209. The specification of the tax preference parameter in Equation (2) above immediately highlights a factor that can be expected to bias business saving upward in Italy, compared to other countries: the absence of a capital gains tax. While the Italian authorities had signaled in the early 1990s their intention to introduce such a tax, a capital gains tax was not introduced until end-1997. The introduction of a capital gains tax as of this year could be expected to have a bearing on firms’ saving decisions, to be discussed further below.

210. Equation (1) is viewed as a long-run target, and is not expected to hold at every moment in time. Instead, the literature typically specifies some adjustment process toward the target dividend payout level D^* , the adjustment process being expressed in annual percentage change terms.

$$\Delta \ln(D_t) = \beta_0 + \beta_1 \Delta \ln(Y_t) + \beta_2 \ln(\theta_t) + \beta_3 [\ln(D_{t-1}) - \ln(D_{t-1}^*)] + \epsilon_t , \quad (3)$$

where ϵ is a zero-mean, serially uncorrelated residual. The interpretation of Equation (3) is rather straightforward: for a given level of profits and a given level of the tax discrimination

parameter, firms would raise dividend payouts in period t if dividends were below target in period $t-1$, and reduce dividend payouts in the opposite event.

211. Despite some appealing features of the adjustment mechanism embodied in Equation (3), it is not without its shortcomings. The main problem is that it is difficult to understand where the past-period “error” term in the brackets would come from, given that profit levels and tax parameters are presumably observable by firms. Based on these considerations, we also experimented with a **partial stock-adjustment** mechanism of the form:

$$\ln(D_t) - \ln(D_{t-1}) = \Delta [\ln(D_{t-1}) - \ln(D_{t-1}^*)] + \epsilon_t \quad (4)$$

212. Adjustment mechanisms of this type are typically postulated for physical assets, where stock adjustment can be expected to be costly. Moreover, the specification of Equation (4) is simple to implement empirically and provides a straightforward link between the short- and long-run values of the coefficients of the variables considered. Under the adjustment mechanism of Equation (4), the expression to be estimated becomes:

$$\ln(D_t) = \delta\alpha_0 + \delta\alpha_1 \ln(Y_t) + \delta\alpha_2 \ln(\theta_t) + (1-\delta) \ln(D_{t-1}) + \epsilon_t \quad (5)$$

213. For the purposes of empirical implementation, and in line with practices in the literature, the following variables were alternatively used to capture the equity earnings (Y) variable: profits (PROF), real profits (RPROF), net profits (NPROF), and stock market valuation (STOCK). More fundamental problems relate to the tax preference variable θ , and in particular to the relevant tax on dividends. While in the case of dividends paid to other firms the natural choice is the corporate profits tax rate, in the absence of detailed micro data it is not clear what marginal income tax rate should be applied to shareholders who are physical persons. On the presumption that shareholders would tend to be predominantly upper-income households, the average of the two highest income tax rates was used. It should be recognized, however, that this choice is essentially arbitrary.

214. We start with the estimation of a dividends payroll function¹⁰⁰ on the basis of the error correction mechanism described in Equation (3). Annual data were used over the period 1981–1996. In order to sidestep cointegration problems, the estimation was done on the basis of first differences. The estimation results are as follows (t-statistics in parentheses):

¹⁰⁰In the specifications of this section, total dividend payouts are used as the dependent variable. Using private sector dividend payouts would not significantly affect the results reported below.

Error-correction specification

Independent variable	PROF	NPROF	RPROF	STOCK
Constant	1.207 (0.5)	0.680 (0.6)	-1.908 (0.7)	1.873 (3.1)
$\Delta \ln (Y_t)$	0.225 (0.5)	0.079 (0.7)	0.329 (0.7)	0.260 (3.2)
$\Delta \ln (\theta_t)$	0.489 (0.7)	0.194 (0.3)	-0.142 (0.2)	.107 (0.3)
$\ln (D_{t-1})$	-0.136 (0.6)	-0.162 (3.1)	-0.191 (1.5)	-0.420 (3.8)
$\ln (Y_{t-1})$	-0.014 (0.1)	0.051 (0.6)	0.313 (0.8)	0.347 (2.9)
$\ln (\theta_{t-1})$	-0.387 (0.5)	-0.522 (0.9)	-0.861 (1.3)	-0.950 (3.2)
Summary statistic				
R ²	0.68	0.69	0.54	0.88
SE	0.092	0.090	0.097	0.056
DW	2.36	2.30	2.14	1.93

215. The estimation results reported above are rather mixed. Most of the estimated coefficients, with the notable exception of the $\ln (\theta_{t-1})$ term, have the expected sign. It is apparent that profits defined in stock value terms perform much better compared to the other definitions, both in terms of overall equation fit and of individual coefficient significance.

216. Turning to the contemporaneous impact of profits on dividend payouts, the estimated coefficients suggest that this impact is positive, but rather small: it ranges from 8 percent in the net profit specification to 32 percent in the real profit specification—in the stock value specification, the only one which yields a statistically significant coefficient, the estimated effect of profits on dividend payouts in the first year is 26 percent. This picture is consistent with the results of the previous section, suggesting that a rise in profits tends to raise dividend payouts on impact, but to a much smaller extent than the profit increase. Thus, at least in the initial years following a positive shock to business profits, business saving tends to increase. With regard to the impact of the tax variables, the results of this specification are less satisfactory: while the estimated coefficient of the $\Delta \ln (\theta_t)$ term is generally correctly signed and lies in the range of estimates obtained for other countries, the $\ln (\theta_{t-1})$ term is wrongly signed across all four income definitions. While these problems undoubtedly reflect in part our

imperfect proxying of the effective tax rate on dividend income, they may also reflect inadequacies of the error-correction process as described by Equation (3).

217. We now turn to the estimation results under the partial stock adjustment process described by Equation (4). The reduced-form Equation (5) provides the basis for estimation. Once again, the equation is estimated using first differences over the period 1981–1996. The estimation results are as follows (t-statistics in parentheses):

Partial stock-adjustment specification

Independent variable	PROF	NPROF	RPROF	STOCK
Constant	-0.035 (0.8)	0.009 (0.2)	-0.008 (0.3)	0.018 (0.5)
ln (Y)	0.188 (2.6)	0.117 (1.7)	0.243 (2.1)	0.219 (2.3)
$\Delta \ln (\theta)$	0.104 (0.5)	0.110 (0.6)	0.066 (0.4)	0.098 (0.7)
$\Delta \ln (D_{t-1})$	0.512 (2.4)	0.630 (2.6)	0.443 (1.8)	0.525 (2.3)
Summary statistic				
R ²	0.58	0.47	0.44	0.54
SE	0.097	0.109	0.101	0.102
DW	1.85	1.71	1.65	1.81

218. In some respects, the empirical results under the stock-adjustment specification appear to be more satisfactory. With regard to the contemporaneous impact of profits on dividend payouts, the estimation results range from 12 percent to 24 percent, i.e., are broadly in the range of estimates obtained under the error-correction specification. However, the significance levels of the estimated coefficients are now much higher, suggesting that the point estimates are much more reliable than those obtained under the error-correction specification.

219. With regard to the tax preference parameter θ , the results under the stock-adjustment specification are more in line with intuition, with the estimated coefficient turning out correctly signed across all four definitions of income. This would suggest that the puzzling

aspects of the empirical results discussed previously may have reflected at least in part inadequacies of the error-correction specification. That said, the estimated coefficients of the tax preference variable are still implausibly low compared to results obtained for other countries, and their significance level is also low—problems that clearly reflect our imperfect proxying of the effective tax rate on dividend income. In all, it could be expected that the estimation results of this section may significantly underestimate the “true” impact of tax changes on dividend payouts.

220. Finally, the estimated coefficient on the lagged dependent variable confirms that adjustment in response to a positive shock in profits tends to be rather protracted. Depending on the income definition used, it can be computed that the portion of the long-term adjustment completed in the year of the increase in profits ranges from 37 percent to 56 percent—and this latter estimate is obtained on the basis of the equation using real profits that yielded the least satisfactory diagnostic statistics of the four that were estimated. This would suggest that, in the wake of a positive shock to profits, dividend payments would initially tend to rise only moderately, with the bulk of the profit increase absorbed by a rise in retained earnings (and business saving). This mechanism would appear to describe well the experience of the Italian economy in the post-1992 period.

Italian households and the corporate veil

221. The second part of this section attempts to investigate the interactions between corporate saving and household saving. Given that corporations are, at least in large part, owned by households, optimizing behavior would suggest that households should take into account the financial position of firms for the purposes of their consumption and saving decisions. Thus, for instance, a fall in business saving that is entirely due to higher dividend payouts should not lead households to alter their consumption plans, as their total wealth would not have changed. In this setting, households would be expected to fully absorb the decline in business saving by an increase in their own, leaving overall private saving unchanged.¹⁰¹

222. Behavior of this type relies upon the ability of shareholders to “pierce through the corporate veil,” i.e., to recognize wealth-neutral changes in dividend flows for what they are. In addition to this “rationality” requirement, however, households must also be **capable** of engaging in such offsetting behavior. In this regard, the question of liquidity constraints is particularly relevant: if consumers are liquidity-constrained, a wealth-neutral increase in dividend outlays may help relax this constraint and lead them to raise their level of consumption, even if they recognize that the change in firms’ financial policies does not have

¹⁰¹Of course, this argument would not hold if the increased dividend payouts reflected improved prospects of the firms concerned. In that case, households would revise their estimated lifetime wealth upward, and would increase their level of consumption, and thus overall private saving.

an impact on their lifetime wealth. These two prerequisites for the successful piercing of the corporate veil are thus mutually quite distinct. While traditional empirical tests for the relevance of the corporate veil cannot distinguish between the two, a more recent family of theoretical models, drawing on certain important stochastic implications of the permanent income hypothesis of consumption, can develop testable propositions that make such a distinction possible. This section will describe and test a model of this type.

223. Before proceeding, it should be pointed out that such an investigation does not carry only analytical interest, but is useful to gain a better understanding of recent trends of Italy's saving-investment balance, and its prospects for the medium term. Specifically, one would want to get a sense of the extent to which the decline in the household saving rate in the post-1992 period may have reflected, at least in part, households' response to the sharp rise in business saving. Looking forward, it may be conjectured that business saving may decline from its current peaks over the medium term; it would be interesting to be in a position of evaluating whether such a decline could entail offsetting household behavior. From a more general perspective, the lack of transparency of Italy's corporate structures has been the object of criticism. It may be interesting to explore whether this feature has been reflected in the actual behavior of economic agents, i.e., to what extent it has constituted an effective obstacle to attempts to pierce the corporate veil.

224. Developing a model that would yield testable propositions relevant to the problem at hand draws on an important intuition of Hall (1978). Assuming a constant real interest rate and quadratic utility, he demonstrated that one implication of the permanent income hypothesis is that consumption follows a random walk. If rational agents maximize a time-separable function of consumption, then all currently available information will already be included in current consumption. Hence current consumption should constitute the best available predictor of future consumption. On this basis, he proposed a test for the permanent income hypothesis that entails regressing consumption on itself lagged one period and lagged values of other variables (including longer lags of consumption): validity of the permanent income hypothesis would require that, once consumption lagged one period is included, other lagged variables should have no power in explaining current consumption.¹⁰² Subsequent extensions have allowed the incorporation into this framework of changes in the real interest rate.

225. Drawing on this intuition, Hasset and Auerbach (1989) developed a model to test the relevance of a corporate veil. Their model attempts to test simultaneously the existence of a corporate veil and the relevance and extent of liquidity constraints. Their proposed test is based on the intuition that, according to the permanent income hypothesis for householders, predictable changes in dividends must already be incorporated in their production plans. Hence, expected dividends should affect only the consumption of the liquidity constrained

¹⁰²Of course, contemporaneous variables may retain explanatory power, without posing a challenge to the permanent income hypothesis.

individuals. The empirical test involves estimating the following equation, expressed in terms of rates of change of the underlying variables—the parameters and derivation of the equation are explained in Appendix II.

$$\Delta \ln (C_t) = \mu^* + \sigma^* r_t^e + \lambda_1 \Delta \ln (Y_t^* e) + \lambda_2 \Delta \ln (D_t^e) + e_t^* , \quad (6)$$

Where (C) is consumption, r is the real interest rate, y is non-dividend income, and D is dividend income. The statistical text is as follows: Presence of liquidity constraints would imply a positive and significant Y coefficient—indeed, this coefficient stands for the fraction of liquidity constrained consumers. On the other hand, absence of a corporate veil would imply a D coefficient insignificantly different from zero.

226. As an additional refinement of the argument, it may be conjectured that liquidity constraints may not be independent of the type of income. Specifically, consumers mainly relying on labor income can be expected to face the most binding liquidity constraints, given the well-documented difficulty to borrow against one's future labor income (or human capital). On the other hand, it would be reasonable to assume that the effective liquidity constraints on recipients of capital income should be considerably less binding: these consumers can borrow more easily using their capital assets as collateral or, in the extreme, can even sell these assets to overcome liquidity constraints. To assess the empirical importance of these considerations, we decompose disposable income into a labor income and a capital income component, but continue to keep dividend income separate. Then, the equation to be estimated becomes:

$$\Delta \ln (C_t) = \mu^* + \sigma^* r_t^e + \lambda_1 \Delta \ln (LY_t^* e) + \lambda_2 \Delta \ln (KY_t^* e) + \lambda_3 \Delta \ln (D_t^e) + e_t^* , \quad (7)$$

where LY and KY stand for labor and capital income (excluding dividends), respectively. The coefficient λ_3 once again forms the basis of the test for the relevance of a corporate veil, and coefficients λ_1 and λ_2 will provide an indication of the incidence of liquidity constraints for each of the two classes of income recipients.

227. We can now proceed to estimate Equation (6). Two estimation methods were used: ordinary least squares (OLS); and two-stage least squares instrumental variable (2SLS IV) estimation. For the purposes of the latter, one-period lags of the dependent and independent variables were utilized; in addition, business profits and the tax preference parameter discussed above were included. Regarding variable definitions, the dependent variable was a per capita consumption aggregate in real terms; total consumption (C) and consumption of nondurable and semidurable goods (CND), often considered as more appropriate from a theoretical perspective, were alternatively considered.

Equation (6) was estimated using annual data, over the period 1980–1996. The estimation results were as follows (t-statistics in parentheses):

Dependent variable: C							
<i>OLS</i>							
Constant	r	$\Delta \ln (Y_t^{*})$	$\Delta \ln (D_t)$	R ²	SE	F	DW
0.028 (1.8)	-0.128 (1.1)	0.629 (3.1)	0.009 (0.3)	0.46	0.015	3.4	1.53
<i>2SLS IV</i>							
0.007 (0.4)	-0.029 (0.2)	1.104 (4.1)	0.056 (1.3)	0.54	0.013	5.6	2.16

Dependent variable: CND							
<i>OLS</i>							
Constant	r	$\Delta \ln (Y_t^{*})$	$\Delta \ln (D_t)$	R ²	SE	F	DW
0.017 (1.2)	-0.114 (1.0)	0.433 (2.4)	0.001 (0.0)	0.36	0.01	32.3	2.13
<i>2SLS IV</i>							
0.000 (0.0)	-0.040 (0.4)	0.871 (3.7)	0.050 (1.3)	0.42	0.01	24.5	2.40

228. The estimation results presented provide a fairly straightforward clear story. First, the results tend to reject **the presence of corporate veil**. This is especially the case under the OLS specifications, where the estimated coefficient of the change in the dividends variable is virtually zero, as is its significance level. Under the 2SLS IV specification, which tends to produce a somewhat better equation fit, the point estimate of the change in dividends coefficient rises somewhat. In addition, the associated t-statistic turns out higher than 1, but remains at levels at which the null hypothesis that the coefficient is equal to zero cannot be rejected at conventional significance levels. On the basis of these results, it would thus appear that existing shortcomings in the area of corporate transparency, while entailing other undesirable implications, have at least not significantly impaired the ability of Italian shareholders to pierce the corporate veil in making their saving and consumption decisions.

229. The estimation results presented above appear equally unambiguous on the question of the **relevance of liquidity constraints** in the Italian economy. Under both specifications, the estimated coefficient of the change in (non-dividend) income variable turns out positive and strongly significant, with the corresponding point estimate ranging between 0.43 and 1.10.¹⁰³ This result suggests that, despite the possible decline over time of the incidence of liquidity constraints suggested by the results of previous sections of this chapter, these constraints continue to be an important feature of the Italian economy. This in turn raises questions as to whether Italian households, even if they are successful in piercing the corporate veil, thereby recognizing wealth-neutral changes in business saving for what they are, would always be capable of offsetting such changes via adjustment of their own saving rate.

230. Given the evidence in support of the prevalence of liquidity constraints economy-wide, it would be interesting to explore to what extent such constraints have an asymmetric incidence for different broad groups of income recipients. This is pursued through the estimation of Equation (7) which distinguishes between labor income and capital (but non-dividend) income. Once again, both OLS and 2SLS IV techniques are employed, and the specifications alternatively employ overall consumption and consumption of nondurable and semi-durable goods as the dependent variable.

Equation (7) is estimated using annual data, over the period 1980–1996. The estimation results are as follows (t-statistics in parentheses):

Dependent variable: C									
<i>OLS</i>									
Constant	r	$\Delta \ln (LY_t^*)$	$\Delta \ln (KY_t^*)$	$\Delta \ln (D_t)$	R ²	SE	F	DW	
0.028 (1.7)	-0.128 (1.0)	0.432 (1.8)	0.176 (1.7)	0.007 (0.2)	0.47	0.015	2.4	1.43	
<i>2SLS IV</i>									
0.006 (0.3)	-0.014 (0.1)	0.717 (2.4)	0.352 (2.2)	0.049 (1.0)	0.50	0.015	3.6	2.03	

¹⁰³This latter estimate is rather difficult to interpret if one literally views the coefficient in question as an estimate of the proportion of liquidity-constrained consumers.

Dependent variable: CND								
<i>OLS</i>								
Constant	r	$\Delta \ln (LY_t^*)$	$\Delta \ln (KY_t^*)$	$\Delta \ln (D_t)$	R ²	SE	F	DW
0.017 (1.2)	-0.113 (1.0)	0.259 (1.6)	0.143 (1.8)	-0.001 (0.0)	0.37	0.014	1.6	1.97
<i>2SLS IV</i>								
-0.002 (0.1)	-0.023 (0.2)	0.514 (2.0)	0.311 (2.4)	0.039 (0.9)	0.38	0.013	3.1	2.35

231. The estimation results reported above generally support the results obtained earlier in this section. Specifically, the estimation results of Equation (7) once again tend to **reject the relevance of the corporate veil** for the Italian economy: the point estimates of the coefficient of the change in dividends term turn out close to zero (especially under the OLS specification) and the associated t-statistics cannot reject the null hypothesis that this coefficient is zero at conventional significance levels.

232. The estimation results of Equation (7) tend to support the conclusions of Equation (6), namely that **liquidity constraints remain important** for the Italian economy. Furthermore, the results point to significant differences in the incidence of liquidity constraints between different classes of income recipients, very much in line with intuition. In particular, liquidity constraints appear to be much more binding for labor income earners relative to capital income earners, with point estimates suggesting a ratio of the relevant coefficients of about 2 to 1 on average. This asymmetry probably reflects the point mentioned above that it would be much easier to borrow against capital assets than against future labor income. That said, it should be emphasized that the empirical results also suggest that liquidity constraints remain relevant for capital income earners as well: the coefficient of the change in capital income variable remains statistically different from zero under all specifications.

F. Determinants of Private Investment: a Summary of the Empirical Evidence

233. The post-1992 period witnessed a **marked slowdown in gross fixed investment**, which fell by 2.2 percentage points of GDP between 1992 and 1996. While part of the decline is attributable to public investment, which bore part of the burden of fiscal consolidation, private investment has been the main determinant of this trend. This section investigates the empirical relevance of a set of factors that could have a bearing on the evolution of private investment, while also drawing on recent research pertinent to explaining recent trends.

234. Perhaps the most striking feature of the post-1992 period as regards private investment has been its apparent **decoupling from trends in business profitability**, as the stagnation of investment occurred precisely during a period when business profits were recovering strongly. This would appear to constitute a sharp break with the past: previous empirical work had tended to suggest a close relation between business profits and business investment, and the conventional wisdom has been that Italy had been atypical among industrial countries in financing investment predominantly through retained earnings. While one could postulate that it should not come as a surprise that business saving and business investment should become less correlated under increased international capital mobility,¹⁰⁴ it appears unlikely that this constituted an important part of the story: outward foreign direct investment flows have been rising very moderately in recent years, and this increase certainly cannot account for the sizeable gap that has opened between business saving and business investment since 1992.

235. In contrast to the abundance of empirical work on saving behavior in Italy, research on investment has been quite scarce. In addition to the well-known greater degree of difficulty of setting up a satisfactory theoretical model with a robust empirical performance, some factors specific to Italy also appear to have been partly responsible. In the first place, there have been prohibitive data problems in certain areas; for instance, at least until very recently, data on the capital stock (obviously a very important variable for a study of investment) had been incomplete and of dubious quality. Secondly, the series of incentive schemes that have been implemented in Italy in recent years¹⁰⁵ have tended to generate a time path of investment that typically defies the skills of the econometrician.

236. This paucity of empirical work on investment in Italy complicated the analysis. What follows is a preliminary attempt, based on largely ad hoc specifications, to identify a set of variables that could potentially account for some of the trends in investment over the last decade and a half. The list is by no means exhaustive: instead, the focus will be on factors that could have had a bearing on investment in the post-1992 period and can be expected to have some relevance over the medium term.

237. The specification employed in this section draws heavily on the study by McDonald (1990) of investment in the Federal Republic of Germany. The dependent variable is the ratio of investment in machinery and equipment to the capital stock, both in real terms (I/K). The explanatory variables include alternatively a real short-term and long-term interest rate (RSHORT and RLONG respectively), both deflated by the GDP deflator; a two-quarter lag of real GDP growth, $\Delta \ln(Y_{-2})$; and a one-quarter lag of the dependent variable, $(I/K)_{-1}$, to

¹⁰⁴It should be recalled that Italy fully liberalized capital flows in the early 1990s.

¹⁰⁵An investment incentive scheme with a strong effect in the period under review was the so-called *Tremonti Law*, introduced in mid-1994 and which expired in the course of 1995.

capture sluggish adjustment of the capital stock to its desired level.¹⁰⁶ In addition, the labor share in income (LAB) was considered as an explanatory variable: its inclusion was decided on the grounds of its strong (negative) correlation with business profits, and is meant to capture the (apparently changing) link between profits and investment discussed above.

238. The **investment equation** was estimated by ordinary least squares, using quarterly data over the period 1981–1996. Separate specifications involving the short-term and long-term real interest rate are shown. The estimation results are as follows (t-statistics in parentheses):

$$(I/K) = 0.315 - 0.267 \text{ RSHORT} + 0.223 \Delta \ln(Y_{-2}) - 0.535 \text{ LAB} + 0.639 (I/K)_{-1}$$

(4.0) (2.5) (3.8) (3.3) (12.2)

$R^2 = 0.95$ $SE = 0.0002$ $F(4,59) = 296.0$ $DW = 2.08$

$$(I/K) = 0.438 - 0.328 \text{ RLONG} + 0.200 \Delta \ln(Y_{-2}) - 0.657 \text{ LAB} + 0.643 (I/K)_{-1}$$

(4.5) (3.1) (3.4) (3.9) (13.3)

$R^2 = 0.96$ $SE = 0.0002$ $F(4,59) = 312.9$ $DW = 2.14$

239. The estimation results presented above suggest that the explanatory variables perform well in accounting for the trends in investment over the estimation period. Both the short-term and the long-term real interest rates turn out to have a strong and significant effect; this result is consistent with the findings of other empirical work that tends to indicate a substantial sensitivity of economic activity to interest rates in Italy. The estimated impact of the labor share also turned out strong and statistically significant, confirming the close link between investment and profits during most of the sample period. Finally, the estimated coefficient of the lagged dependent variable suggests that capital stock adjustment in Italy tends to be rather sluggish (albeit not excessively so compared to other countries), with only some 35 percent of the long-run adjustment taking place in the first period.

240. Given the discussion at the outset of this section, it would be interesting to explore how the sensitivity of investment to profits (as captured in our specification by the labor share variable) has changed over time. To get a sense of the effect in question, the equations above were re-estimated over the period 1981–1992, i.e., dropping the last four years of the sample. For simplicity, only the results of the specification involving the real short-term interest rate are shown. The estimation results were as follows (t-statistics in parentheses):

¹⁰⁶A number of variables considered in McDonald (1990) that failed the test of statistical significance were dropped from the regression. Perhaps the most surprising among such failures concerns the second derivative of output growth: this variable, used to capture “accelerator”-type effects has typically been a strong empirical performer in the case of other industrial countries.

$$(I/K) = 0.817 - 0.426 \text{ RSHORT} + 0.092 \Delta \ln(Y_{2,t}) - 1.291 \text{ LAB} + 0.561 (I/K)_{t-1}$$

(6.1) (4.7)
(1.9)
(5.9)
(8.7)

$R^2 = 0.97$

$SE = 0.0002$

$F(4,47) = 382.3$

$DW = 1.80$

241. The estimation results based on the shorter sample are quite striking, in particular with regard to the labor share coefficient: dropping just four years from the original sample more than doubles the estimated impact of the labor share on investment. This sharp change provides a quantitative indication of the major break in the relation between profits and investment in the post-1992 period relative to earlier historical trends. In a sense, this **fall in the sensitivity of investment to profits** allowed investment to benefit from the very sharp fall in the labor share since 1992 to a much smaller extent than could have been expected on the basis of earlier historical trends.

242. The break in the traditional link between business profits and business investment prompts the question as to which factors may have been at work to depress investment to such low levels relative to profits. In this regard, a number of considerations appear relevant. In the first place, with regard to the impact of interest rates, it could be argued that what may have mattered for investment decisions was not only the high level of real interest rates in the period under review, but also the prospect of much lower rates ahead, which served to put investment “on hold”—especially after the phasing out of the Tremonti incentives. Indeed, this factor could have come to play an increasingly important role toward the end of the period, when the prospect of EMU participation began to appear less remote. Second, the wage negotiating framework set up in July 1993 may have tilted relative factor prices against capital by more than would be implied by the rise in real interest rates. In this setting, firms may have been switching to less capital-intensive production techniques to a much greater extent than the simple interest rate term used in the specification of this section would suggest.

243. Relevant as these factors may have been, they are unlikely to tell the whole story. After all, the post-1992 period has for the most part been a period of political transition, with related turbulence and uncertainty. In a recent paper, Guiso and Parigi (1996) argue that such marked uncertainty may in fact go a long way toward explaining the depressed levels of private investment. Utilizing the Bank of Italy’s annual manufacturing investment survey, the authors were able to construct, for each company surveyed, a measure of the subjective probability distribution of future demand for the firm’s product. The level of uncertainty regarding future demand, proxied by the variance of this probability distribution, was then linked empirically to each firm’s investment plans. The authors conclude that an increase in

perceived demand uncertainty, while entailing important distributional effects among firms,¹⁰⁷ had unambiguous implications in the aggregate, in exerting a strong depressing effect on investment plans.

G. Summary of Results and Their Relevance for the Medium-term Outlook of the Current Account

244. This section brings together the empirical results obtained in this chapter, and attempts to assess their relevance for the likely **medium-term evolution of the current account**. As observed in the Introduction, this is a question of considerable importance, given the substantial widening of the current account surplus since 1992, and a number of projections that envisage its further widening in the coming years.

245. Needless to say, inferences based on econometric results, including those of this chapter, have to be treated with considerable caution. This is especially the case for those relations that had to be estimated over relatively short samples, or where the quality of the underlying data was questionable. Nonetheless, the empirical results point to a number of general patterns regarding individual components of saving and investment that could provide a useful basis for at least a qualitative assessment of the future evolution of the current account.

246. A general issue, addressed in this chapter from a number of angles, concerns the **extent and changing incidence over time of liquidity constraints** in the Italian economy. This question is likely to have an important bearing on the degree of offset between different components of saving, as well as on the medium-term path of household saving itself. Two general conclusions were reached on this issue:

- On the one hand, there were indirect indications that liquidity constraints may be becoming somewhat less binding over time: this conclusion was mainly based on the increasingly “Ricardian” behavior of Italian households, and on the reduced impact over time of income growth on private saving;
- On the other hand, a direct test based on the permanent income model provided strong evidence that liquidity constraints remain binding for a substantial proportion of Italian consumers—and that this proportion appears certainly much higher than in other industrial countries. While households mainly depending on labor income clearly appear to be the most affected by liquidity constraints, these constraints appear binding for a significant proportion of owners of capital also.

¹⁰⁷In line with economic theory, the types of firms where investment plans were adversely affected the most tended to be those for which production irreversibilities were important, or which faced relatively inelastic demand curves for their product.

This general picture, one where the incidence of liquidity constraints has been gradually declining over time, but such constraints still remain binding for a large proportion of consumers, has a key bearing for our assessment of the medium-term evolution of the saving-investment balance.

247. Turning to individual components of **saving**, it is projected that, following the major fiscal consolidation effort of last year, the budget deficit will continue to decline, albeit at a much slower pace. Moreover, plans to raise public investment over the medium term will dampen somewhat the direct impact of deficit reduction on **public saving** and the current account. Perhaps more importantly, the estimation results of this chapter suggested a very high offset coefficient, of the order of 80 percent (and on a rising trend over time), on the part of private saving to changes in public saving. The Ricardian offset coefficient can be expected to remain high, especially given the strengthened quality of fiscal adjustment and the durability of the reduction in the interest burden. In all, the full impact of public saving on the current account over the medium term is projected to be very limited.

248. Turning to private saving, and apart from its endogenous response to changes in public saving, a number of patterns emerge. With regard to **household saving**, the combination of a pervasiveness of liquidity constraints and of their gradually less binding nature over time provides scope for its reduction over the medium term, from a level which is currently far in excess of that in comparable industrial countries.¹⁰⁸ Overall, and abstracting from temporary cyclical effects, we do not see a compelling case for the secular decline in the household saving rate to autonomously come to an end.

249. Particular attention was paid to **business saving**, given its impact on current account trends in the post-1992 period. The empirical findings identified a number of factors that may have accounted for the sharp rise in business saving in recent years. These include a marked fall in the labor income share (and a concomitant rise in business profitability), and a dividend payout policy that tends to significantly lag behind profits. For the medium term, a significant fall in business saving is projected as some of the factors that contributed to its recent rise reverse themselves—indeed, there are some indications that a substantial downward correction of business saving may have already occurred in 1997. Some of the factors that could be important in this context include:

- the recent decline in the labor share can be expected to come to a halt, and even reverse itself to some extent;
- dividends should start catching up with profits; and

¹⁰⁸Indeed, a case could be made that a richer menu of euro financial products under EMU could accelerate the pace of relaxation of liquidity constraints.

- and the introduction of a capital gains tax as of this year should alter incentives in favor of dividend payouts and against retained earnings.¹⁰⁹

250. An important question concerns the **impact of reduced business saving on household saving**. In this regard, detailed empirical tests failed to detect the presence of a “corporate veil”; in other words, there was no evidence that Italian consumers tend to (irrationally) view wealth-neutral dividend payouts as adding to their lifetime wealth. At the same time, however, these same tests identified the pervasiveness of liquidity constraints, which would suggest that an offset of the fall in business saving by a rise in household saving should be less than complete.

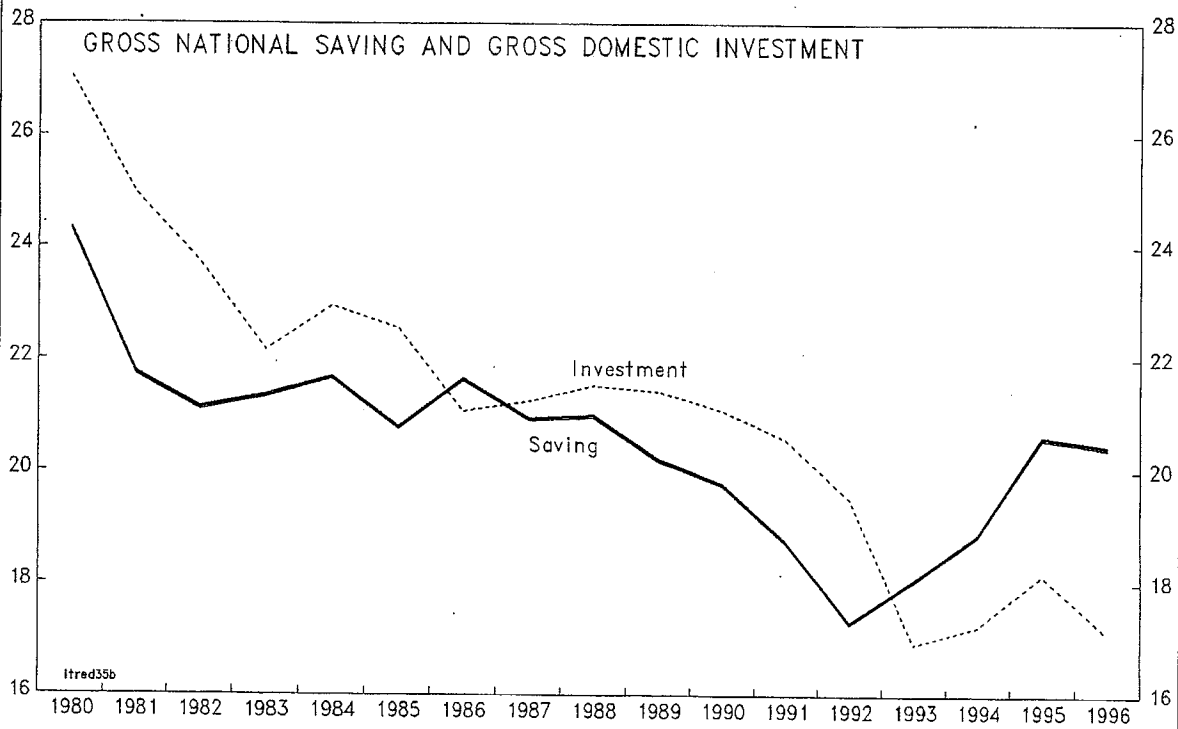
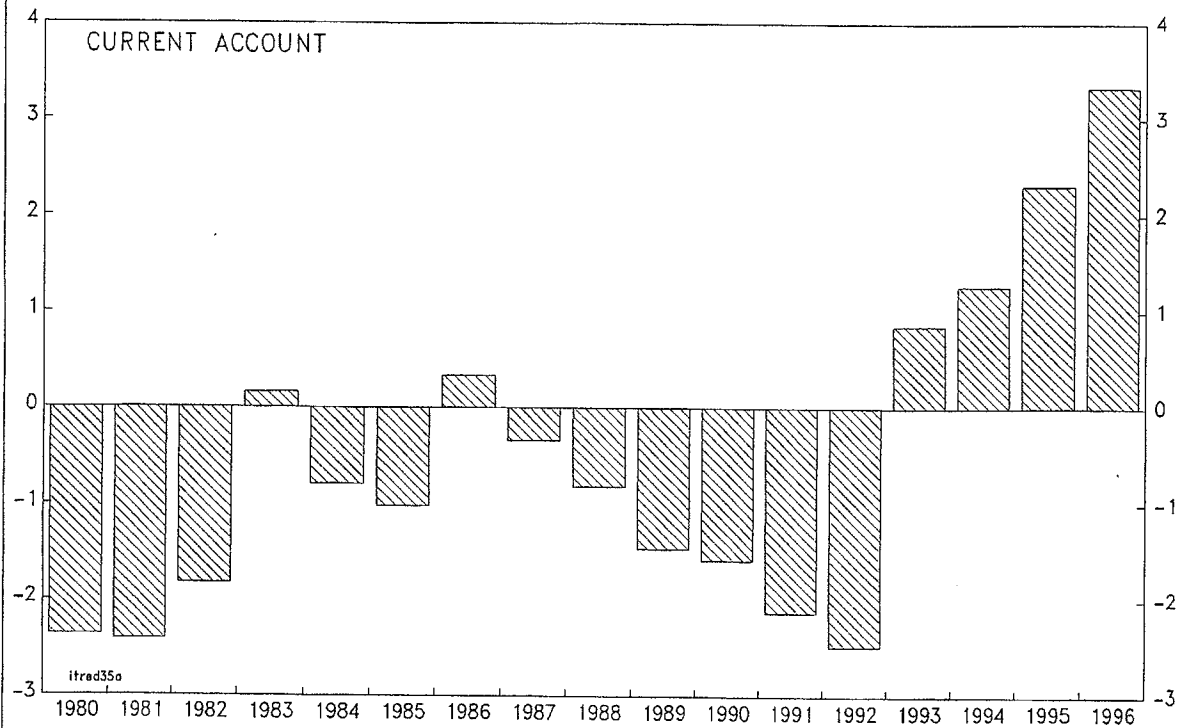
251. Turning to **private investment**, the most striking development in the post-1992 period has been its significant decline despite the strong pick-up in business profitability; this asymmetric development represents a clear break with past patterns. While the depressed level of investment can in part be attributed to the impact of real interest rates and trends in relative factor prices unfriendly to capital accumulation, more intangible factors, such as the political instability and uncertainty of much of the period under review may have had a more significant impact—indeed, some recent empirical work provides interesting evidence to that effect. With the reversal of the above dampening factors, as interest rates come down and market confidence is restored, conditions appear to be in place for a sustained recovery of investment over the medium term—especially if EMU participation is secured—given the strong underlying position of the business sector in terms of profits accumulated over the years and the labor share over the medium term.

252. The combination of a small decrease in the saving rate and a substantial rebound of the investment rate form the basis of a projected narrowing of the current account surplus in the coming years. In this regard, quantitative estimates, which should of course be taken with a good deal of caution, envisage the current account as converging to a range that past empirical work has identified as consistent with the medium-term fundamentals of the Italian economy.

253. These conclusions received broad independent support from the empirical investigation of a standard intertemporal model of the current account (presented in Appendix I). The results confirm the picture of a structural break during the post-1992 period relative to previous trends. Specifically, since 1992, the gap between the actual current account and its model-based, “optimal” level widens substantially. This atypical behavior is consistent with the impact of a number of factors of a predominantly temporary nature (and with a lower degree of mutual offset between individual components of the saving-investment balance that had characterized previous trends). At the same time, the degree of observed divergence between the actual and optimal current account balance points to considerable scope for a narrowing of the surplus over the coming years.

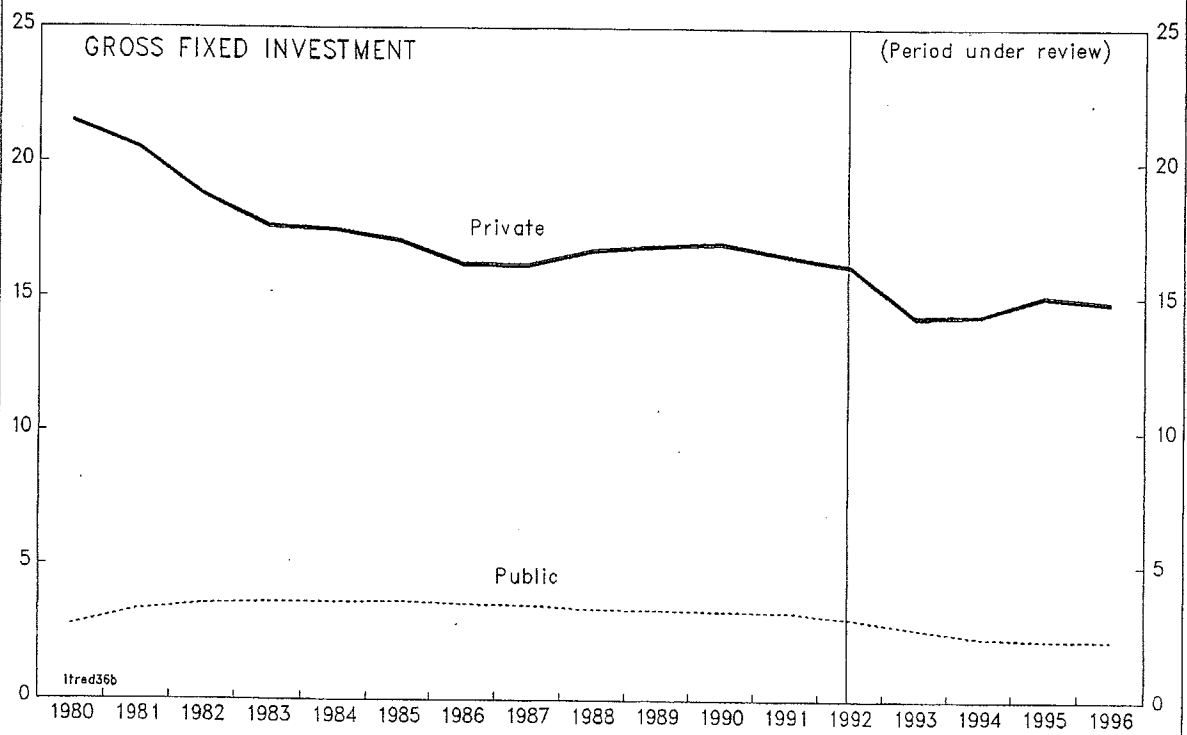
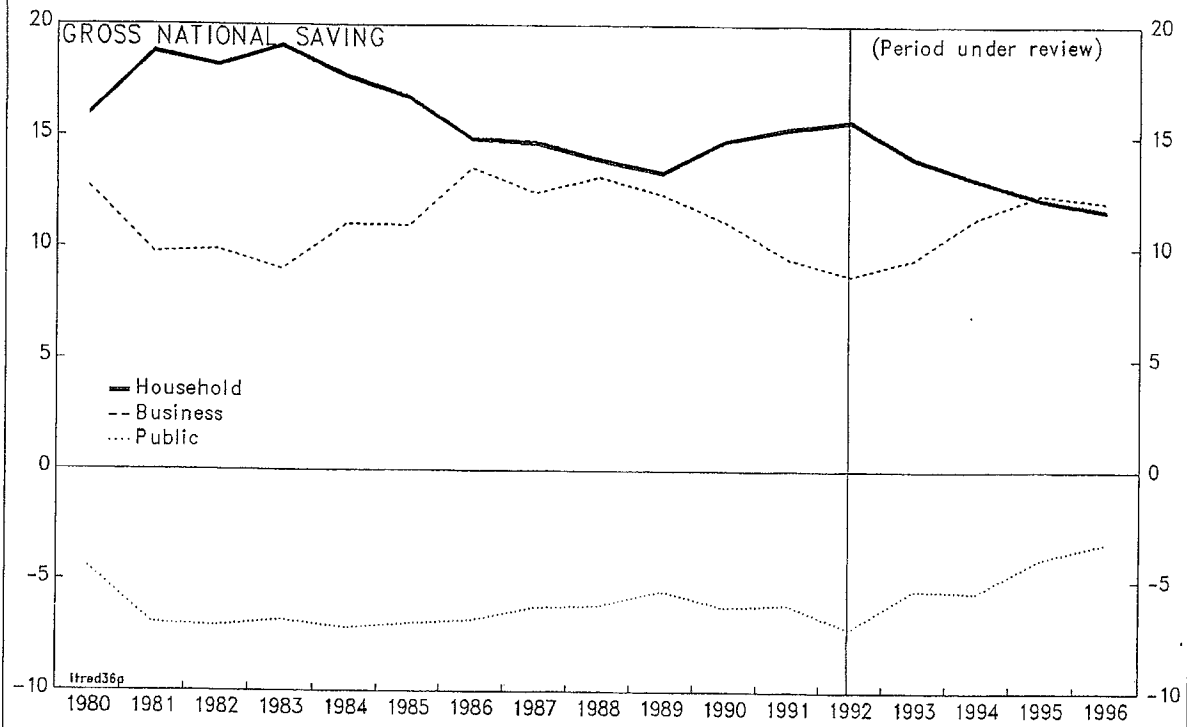
¹⁰⁹The empirical results of this chapter were not very strong in this regard, mainly owing to problems in adequately specifying the relevant tax variable. Evidence from other countries, however, suggest that the impact of such tax changes can be substantial.

Figure 19. Italy: Current Account and Saving-Investment Balance
(In percent of GDP)



Sources: ISTAT; and IMF, World Economic Outlook.

Figure 20. Italy: Saving and Investment
(In percent of GDP)



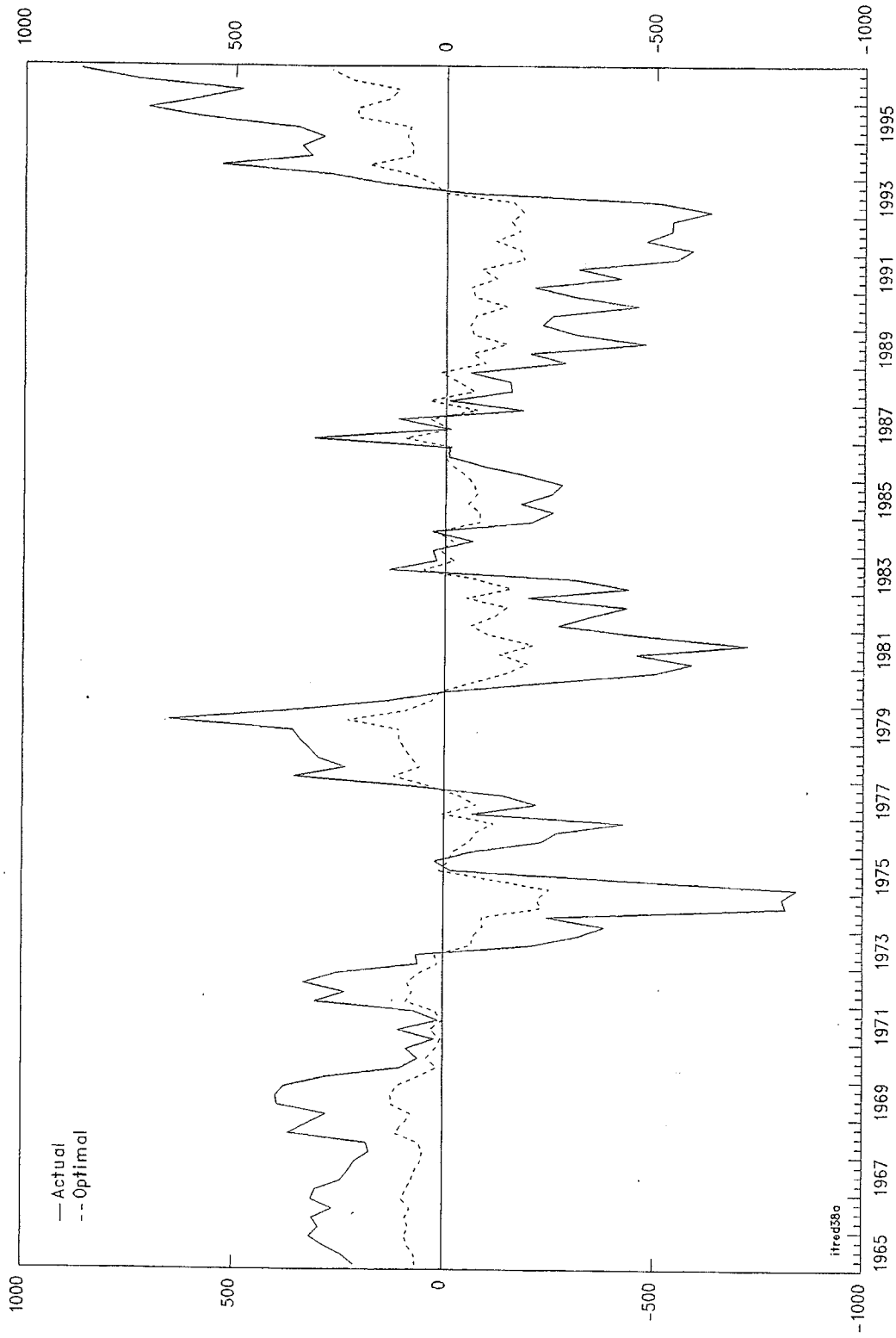
Source: IMF, World Economic Outlook.

Figure 21. Italy: Labor income Share, Business Sector
(Percent)



Source: OECD Economic Outlook.

Figure 22. Italy: Consumption Smoothing and the Current Account
(Actual and "optimal" current account, in billions of lire)



Source: Staff calculations.

The Intertemporal Approach to the Current Account: Theoretical Aspects and Empirical Results

254. The intertemporal approach to the current account, which is derived from the permanent income theory of consumption and saving, has become increasingly influential in recent years, and has come to constitute the dominant paradigm for the purposes of both theoretical and empirical work.¹¹⁰ In this appendix, the underlying theory is summarily presented, and a simple empirical test of the intertemporal model is performed, to gain additional insight into the trends of the saving-investment balance in Italy during the period under consideration.

255. In essence, the intertemporal model views the current account as the outcome of dynamic saving and investment decisions by forward-looking, optimizing economic agents. The theory views a representative household as basing its consumption decisions on its “permanent income,” or, broadly speaking, the constant flow of income yielded by its net wealth. On this basis, households are viewed as attempting to attain a smooth consumption path over time, at a level consistent with their intertemporal budget constraint, drawing down their saving (or borrowing) when current income falls short of permanent income, and raising saving in the opposite event.

256. An open economy with access to world capital markets offers more consumption smoothing possibilities than those provided by bank lending in the context of a closed economy. Thus, in response to a country-specific negative shock to income (relative to the economy’s longer-term potential), economic agents now have the option to borrow abroad to maintain their consumption at its desired level, with the country as a whole running a current account deficit in the process. In this sense, developments in the current account can be viewed as the residual of optimizing decisions by economic agents.

257. The above discussion makes clear that, according to the intertemporal model, the response of the current account to a change in income can be expected to be quite different depending on whether the change is viewed as temporary or permanent.¹¹¹ Thus, the theory would predict large swings in the current account in response to purely temporary shocks to income. By contrast, changes in income that are viewed to be permanent should leave the current account unchanged, as economic agents adjust their consumption path to reflect fully their changed intertemporal budget constraint. A corollary of this discussion is that the simple

¹¹⁰For a comprehensive overview, see Obstfeld and Rogoff (1995).

¹¹¹While the discussion here focusses on the importance of changes in income for the current account, it should be clear that very similar considerations would also apply to other variables that impact on the intertemporal budget constraint faced by economic agents; shocks to government expenditure or to investment relative to their permanent levels are particular cases in point in this regard.

intertemporal model described in this section cannot easily accommodate persistent current account imbalances (in either direction). This problem is overcome, however by richer versions of the model, for example, those that take into account, among other factors, demographic developments or sluggish adjustment of the capital stock to its desired level.

258. The foregoing discussion serves to indicate that the way to test the intertemporal model empirically is not immediately obvious, given that the central variable of interest, namely permanent income, is essentially unobservable. Earlier research on the subject typically relied on tests of an indirect nature, based on certain predictions of the intertemporal model.¹¹² It soon became apparent, however, that such tests may not be particularly robust, as the predictions on which they had been based turned out to be particularly sensitive on a number of (often implausible) imposed assumptions.

259. A more recent strand in the literature suggests a more promising avenue of empirical testing. This approach, which is centered around testing certain key stochastic implications of the model, was inspired by the seminal work of Campbell (1987) and Campbell and Shiller (1987). These authors' insight consists in noting that, under some not overly restrictive assumptions (notably that income follows a random walk), the intertemporal model predicts a particular joint behavior of saving and income, and makes saving itself the best instrument to forecast changes in income. This permits the econometrician to extract the "optimal" current account from the actual current account and observed changes in income.

260. The above intuition was exploited by a number of authors, notably Ghosh (1995), Ghosh and Ostry (1994), and Sheffrin and Woo (1990) to test whether the current account tends to behave in accordance to the predictions of the intertemporal model. Specifically, the methodology allows one to compare the "optimal" current account to the actual current account over time.

261. In order to describe the test in question, but also to gain better insight into the analytics of the intertemporal model of the current account, a small degree of formalization is useful. Consider an open economy, where the representative consumer maximizes a time-separable utility function U of the form:

$$U = E_t \sum_{j=0}^{\infty} \alpha^j u(c_{t+j}), \quad (12)$$

¹¹²An example of such tests is Feldstein and Horioka (1980). They argued that the intertemporal model would predict a lower correlation between domestic saving and domestic investment following capital flow liberalization. They thus interpreted their estimated near-unitary coefficient as evidence against the intertemporal model.

where E is the expectations operator and c is private consumption. The consumer's intertemporal budget constraint is given by:

$$\Delta b_t = r b_t - (y_t - c_t - i_t - g_t), \quad (13)$$

where y_t is disposable income, i_t is investment, g_t is government spending on goods and services, and b_t is the holdings of an (indexed) bond.

262. The interpretation of Equation (13) is that the change in net foreign liabilities, and hence the current account balance, is given by the "national cash flow" ($z_t = y_t - i_t - g_t$), less private consumption, and less net foreign investment payments.

263. Under certain condition (a quadratic utility function and a constant real interest rate r), it can be shown that optimal consumption c^* will amount to a fixed fraction of the present value of the expected stream of future national cash flow plus the current yield of the bond b . In turn, optimal current account ca^* is equal to the expected present value of future changes in the national cash flow:

$$c^* = r b_t + [r/(1+r)] - \sum_{j=0}^{\infty} (1+r)^{-j} E_t z_{t+j}; \quad (14)$$

$$ca^* = - \sum_{j=0}^{\infty} (1+r)^{-j} E_t \Delta z_{t+j}. \quad (15)$$

264. The intuition of Campbell (1987) and Campbell and Shiller (1987) suggests that the model can be expressed as a VAR relating the current and lagged current account and changes in national cash flow. This is so because Equation (15) includes both the variable being forecast (changes in national cash flow) and the optimal forecast, that is, the variable that is postulated to capture all relevant information about future changes in national cash flow (namely, the current account).

265. The bivariate VAR that will therefore be considered for the purposes of estimation is of the form:

$$\begin{bmatrix} \Delta z_t \\ ca_t \end{bmatrix} = \begin{bmatrix} \phi_{11} & \phi_{12} \\ \phi_{21} & \phi_{22} \end{bmatrix} \begin{bmatrix} \Delta z_{t-1} \\ ca_{t-1} \end{bmatrix} + \epsilon_t \quad (16)$$

where ϵ_t is a white-noise error term. The specification above, though standard in the literature, is rather restrictive, in that it allows only one lag in the VAR. For the purposes of

this chapter, a richer lag structure was employed. This extension of the lag structure is formally quite straightforward.

266. The estimation results of the VAR system described by Equation (16), appropriately extended to include a longer lag structure, can be used to calculate the optimal (or consumption-smoothing) component of the current account. The optimal current account is plotted, along with the actual current account in Figure 22.

267. In discussing the results, given the rather narrow focus of this appendix, we shall not dwell on aspects pertaining to the intertemporal model itself. In particular, we shall forego the standard statistical tests, namely tests of parameter restrictions and Granger causality tests on the current account and national cash flow, that are usually relied upon for evaluating the empirical performance of the model. Rather, the main focus will be on briefly commenting on the relevance of the results as captured by Figure 22 for the conclusion reached in the main body of the chapter.

268. Figure 22 suggests that the actual current account and its consumption-smoothing component generally tend to move together over time. In addition, at least up to 1992, the gap between the two displays a tendency to decline (in absolute value) over time—this tendency is more pronounced if the gap is expressed as a share of GDP. This trend suggests that over time Italian households may have become increasingly more successful in smoothing out consumption. This observation would be consistent with the notion of liquidity constraints gradually being eased, probably in large part reflecting the easing of restrictions on international capital flows and technological innovations that have tended to facilitate such flows.

269. Nonetheless, the gap between the two series remains substantial, with the actual current account consistently exhibiting higher volatility compared to its consumption-smoothing component. While this latter empirical finding is quite common in the literature,¹¹³ the actual gap between the two series remains considerably larger relative to the empirical results obtained for other industrial countries. Once again, this would appear to support the conclusions in the main body of the chapter that, even if declining, the “absolute” importance of liquidity constraints remains pronounced in the case of Italy.

270. Finally, the picture of the post-1992 period presented in Figure 22 deserves some comment. While consumption-smoothing considerations do suggest that Italy should be running a current account surplus during this period, the level of this optimal surplus is much smaller than the surpluses actually observed. In fact, this gap widens sharply in comparison with the immediately preceding years. In a sense, this feature of Figure 22 seems to carry the message that the behavior of the Italian current account since 1992 has indeed been quite

¹¹³Incidentally, this pattern puts into question the Feldstein-Horioka contention that international capital flows may still be too limited from an efficiency standpoint.

nontypical relative to recent trends—indeed, it would appear consistent with the picture of saving rising under the impact of rather exceptional factors (and exhibiting much smaller offsets between its various categories than typically observed), and of an unusually depressed level of investment. Moreover, with the current account balance never managing to stay above (or below) its consumption-smoothing component for prolonged periods of time, the picture emerging from Figure 22 lends some support to the notion that some narrowing of the current account surplus can be reasonably expected over the medium term.

An Empirical Test of the Corporate Veil

271. This Appendix summarizes the model proposed by Hasset and Auerbach (1989) for testing for the presence of a corporate veil. Assume that a representative consumer maximizes a CES utility function of consumption, with an intertemporal elasticity of substitution of σ and a pure rate of time preference δ . Under these conditions, the consumer's optimal consumption path will obey an Euler equation of the form:

$$(C_t/C_{t-1})^{1/\sigma} [(1+\delta)/(1+r_t)] = 1 + \epsilon_t, \quad (6)$$

where r_t is the after-tax rate of return to saving and ϵ_t is a stochastic residual whose conditional expectation at time $t-1$ is zero. Rather straightforward algebra, and use of the approximation that $\ln(1+x) = x$ for a small x , can simplify Equation (6) to:

$$\Delta \ln(C_t) = -\sigma\delta + \sigma r_t + \sigma \epsilon_t. \quad (7)$$

272. Since r_t and ϵ_t are potentially correlated, it may be useful to decompose r_t into an expected component r_t^e uncorrelated with ϵ_t and a "surprise" term $r_t - r_t^e$, to obtain an equation that can be estimated:

$$\begin{aligned} \Delta \ln(C_t) &= -\sigma\delta + \sigma r_t^e + \sigma (\epsilon_t + r_t - r_t^e) \\ &= \mu + \sigma r_t^e + e_t. \end{aligned} \quad (8)$$

273. At this stage of the analysis, one can incorporate liquidity constraints into the model. Perhaps the most straightforward way to do so is to follow Campbell and Mankiw (1987), who consider a model in which a percentage λ of consumers are liquidity constrained, "Keynesian" consumers, and a percentage $(1-\lambda)$ consume according to the permanent income hypothesis. Then, if Y_t^e is defined as the expected income of the liquidity-constrained group, Equation (8) can be rewritten as:

$$\begin{aligned} \Delta \ln(C_t) &= \lambda \Delta \ln(Y_t^e) + (1-\lambda) [\mu + \sigma r_t^e + e_t] \\ &= \mu^* + \sigma^* r_t^e + \lambda \Delta \ln(Y_t^e) + e_t^*. \end{aligned} \quad (9)$$

274. For shareholders, predictable changes in dividends, which are already included in the current information set, must already be incorporated into consumption plans. Hence, expected dividends should affect only the consumption of the liquidity-constrained individuals. Suppose that dividend income (D_t) constitutes a proportion γ of the income of liquidity-constrained households (Y_t), and let $Y_t^* = Y_t - D_t$. Then, Equation (9) can be rewritten as:

$$\Delta \ln(C_t) = \mu^* + \sigma^* r_t^e + \lambda_1 \Delta \ln(Y_t^* e) + \lambda_2 \Delta \ln(D_t^e) + e_t^*, \quad (10)$$

where $\lambda_1 = \lambda (1-\gamma)$ and $\lambda_2 = \lambda\gamma$. Equation (10) provides the basis for the estimations of the remainder of this section.

275. The permanent income hypotheses places strong restrictions on the coefficients of Equation (10). In particular, absence of a corporate veil would imply that λ_2 should be equal to zero. The reasoning is the following: since expected changes in dividends are already included in consumers' assessment of lifetime wealth, they should **not** affect consumption;¹¹⁴ on the other hand, if there is a corporate veil, λ_2 should be positive and statistically significant. As explained above, the estimate of λ_1 will measure the extent of liquidity-constraints economy-wide.

¹¹⁴Note that this proposition is not affected by the tax treatment of dividend income.

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Table 1. Italy: Nominal Demand and Output

(In trillions of lire; at current prices)

	1996	1996				1997		
		I	II	III	IV	I	II	II
Private consumption	1165.4	290.1	288.0	284.4	302.8	303.8	301.1	295.4
Public consumption	310.8	71.2	72.6	72.5	94.5	74.4	76.5	76.4
Gross fixed investment	319.2	78.6	80.5	76.7	83.3	78.1	82.5	78.7
Of which:								
Construction	154.7	38.2	38.3	39.2	38.9	37.9	38.9	39.6
Machinery, equipment and means of transport	164.5	40.4	42.2	37.4	44.4	40.1	43.5	39.0
Change in stocks	1.2	5.5	-1.0	-4.8	1.3	-3.0	11.3	5.4
Total domestic demand	1796.5	445.5	440.2	428.9	481.9	453.3	471.3	455.9
Exports of goods and services	452.3	111.7	115.4	107.0	118.1	108.0	123.2	121.8
Imports of goods and services	375.3	99.0	94.3	84.1	97.8	94.2	108.6	103.7
Foreign balance	77.0	12.7	21.1	22.9	20.3	13.8	14.6	18.1
Gross domestic product	1873.5	458.2	461.3	451.7	502.2	467.1	485.9	474.0
Memorandum items:								
Percentage change in: 1/								
GDP at current prices	5.8	7.5	5.8	5.7	4.3	1.9	5.3	4.9
GDP deflator	5.1	6.1	5.3	4.9	4.2	2.6	2.4	2.2

Source: ISTAT.

1/ Over corresponding period.

Table 2. Italy: Demand and Output

(Percent change over corresponding period; at constant prices)

	1996	1997 1st three quarters	1996				1997		
			I	II	III	IV	I	II	III
Private consumption	0.7	-1.9	1.2	0.5	0.2	1.0	1.5	2.0	2.3
Public consumption	0.4	-0.3	-0.2	0.4	0.7	0.8	0.6	0.3	0.0
Gross fixed investment	1.2	0.2	4.5	2.5	0.0	-1.9	-1.6	-0.1	1.1
Of which:									
Construction	1.1	1.4	2.9	1.8	1.1	-1.3	-2.7	-0.6	-0.7
Machinery, equipment and mea of transport	1.3	-0.9	6.0	3.2	-1.1	-2.5	-0.5	0.4	2.9
Change in stocks 1/	-0.5	-0.9	0.6	-0.6	-1.0	-1.2	-1.4	2.5	1.6
Total domestic demand	0.2	-2.1	2.1	0.2	-0.7	-0.8	-0.7	3.9	3.4
Exports of goods and services	-0.3	-5.5	-2.4	-3.5	1.6	3.4	-1.5	6.7	12.1
Imports of goods and services	-2.6	-10.3	0.1	-5.6	-4.3	-0.8	-1.8	16.2	20.5
Foreign balance 1/	0.5	0.9	-0.6	0.3	1.3	1.0	0.0	-1.6	-1.2
Gross domestic product	0.7	-1.2	1.4	0.5	0.6	0.2	-0.6	2.1	2.1
Memorandum items:									
Percentage change in:									
GDP at current prices	5.8	-3.9	7.7	5.8	5.3	4.4	2.4	4.9	4.9
GDP deflator	5.1	-2.4	6.1	5.3	4.9	4.2	2.6	2.4	2.2

Source: ISTAT.

1/ Changes in the stockbuilding and foreign balance are expressed as contributions to GDP growth (in percent).

Table 3. Italy: Selected Indicators of Foreign Demand and Prices 1/

(Annual changes, in percent)

	1991	1992	1993	1994	1995	1996	1997 2/
Demand and output in partner countries (export weighted) 3/							
Real GDP (or GNP) 4/	2.2	1.8	0.7	3.0	2.6	2.6	3.1
Real total domestic demand 5/	1.9	1.7	-0.3	3.2	2.5	2.0	2.3
Volume of merchandise imports 4/	5.7	4.7	1.4	8.9	9.0	5.5	8.5
Of which:							
Non-oil imports	5.4	4.8	1.7	9.2	9.4	6.2	8.8
Costs and prices of partner suppliers (import weighted) 6/							
Unadjusted for exchange rate changes 7/							
GDP (or GNP) deflators 5/	4.4	3.9	3.3	2.3	2.2	1.6	1.4
Consumer prices 5/	4.4	3.9	3.4	2.5	2.2	2.1	1.8
In U.S. dollar terms							
GDP (or GNP) deflators 5/	2.1	8.3	-4.0	4.3	12.6	-1.8	-8.9
Consumer prices 5/	2.1	8.3	-4.0	4.6	12.7	-1.4	-8.6
Export unit values 4/	-2.0	3.3	-6.7	3.4	11.4	-1.7	-7.8
Of which:							
Non-oil trade	-0.9	4.1	-6.5	4.1	11.7	-3.1	-8.0
Nonfuel commodity prices (in U.S. dollars)							
Export weighted 8/	-6.8	1.0	-0.1	15.5	6.3	-2.4	-4.8
Import weighted 9/	-5.0	-1.4	4.5	9.9	4.0	-1.7	-2.3

Source: IMF, Research Department.

1/ With the exception of nonfuel prices, the composites are averages of percentage changes for individual trading partners (as defined in footnotes 3 and 4 below).

2/ Estimates by Fund staff.

3/ Weights proportional to the geographic composition of 1986-88 average exports.

4/ Composite based on data for those countries that together accounted for about 90 percent of trade.

5/ Composite based on data for each industrial country.

6/ Weights are proportional to the 1986-88 imports.

7/ Weighted average of percentage changes in indices expressed in national currencies of industrial partner countries.

8/ Based on averages of world market price quotations for component nonfuel commodities weighted by the 1979-81 composition of commodity exports.

9/ Based on averages of world market price quotations for component nonfuel commodities weighted by the 1979-81 composition of commodity imports.

Table 4. Italy: Origin of Gross Domestic Product

(Percent change over corresponding period; at constant prices)

	1996	1997 1st three quarters	1996				1997		
			I	II	III	IV	I	II	III
Services	-0.2	1.2	1.3	0.9	1.1	1.3	0.9	1.4	1.4
Market	1.5	1.6	1.7	1.1	1.5	1.7	1.2	1.9	1.9
Nonmarket	-0.2	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.2
Industry	-0.1	1.2	1.7	-0.2	-0.5	-1.5	-3.7	3.8	3.4
Manufacturing	-0.7	1.3	1.1	-0.5	-1.4	-2.0	-4.1	3.9	4.1
Energy	0.7	2.2	2.7	-1.3	1.7	-0.2	-3.9	7.0	3.8
Construction and public works	1.8	-0.3	3.5	2.4	1.6	-0.4	-1.5	0.2	0.2
Agriculture, forestry and fishing	2.4	-2.4	-3.0	2.8	7.9	2.3	2.2	-4.5	-4.8
Total value added at market cost	0.8	1.1	1.3	0.6	0.8	0.4	-0.6	2.0	1.9

Source: ISTAT.

Table 5. Italy: Industrial Production

(Changes in percent over same period of previous year)

	1991	1992	1993	1994	1995	1996	1997 1/
Industrial Production 1/	-0.9	-0.2	-2.4	5.2	5.4	-1.7	1.1
By economic use:							
Final consumption goods	0.4	0.7	-2.4	5.5	3.5	-1.4	3.1
Final investment goods	-4.1	-3.9	-3.5	3.8	13.9	0.6	-3.9
Intermediate goods	-0.6	0.4	-2.1	5.5	4.1	-2.4	1.7
By sector:							
Fuel and energy products	1.6	1.7	0.4	3.3	3.3	0.6	2.4
Basic industry 2/	-0.4	-0.2	-3.6	4.0	4.4	-1.8	1.9
Mechanical industry 3/	-4.2	-2.4	-4.8	6.5	11.5	-1.0	-1.7
Light industry 4/	1.1	1.1	-0.5	5.2	1.6	-2.7	2.8

Source: ISAT.

1/ January--August.

2/ New series since 1994.

3/ Mining and processing of nonenergy minerals, chemical products.

4/ Machinery, tools and equipment, vehicles, other means of transport, electrical and electronic products.

5/ Food processing, textiles, clothing, footwear, furniture, and other items.

Table 6. Italy: Prices

(Percentage change)

	1991	1992	1993	1994	1995	1996	1997
Consumer prices	6.3	5.3	4.6	4.1	5.2	4.0	2.0
Food products	6.6	5.0	2.2	3.5	-15.5	4.3	0.4
Other goods	5.2	3.4	4.6	3.9	4.7	3.5	...
Services	7.2	7.5	5.6	4.4	5.2	4.4	...
Wholesale prices 1/	5.2	2.1	5.2	3.8	10.2	3.7	0.2
Cost of living	6.5	4.9	4.4	4.0	5.4	3.9	1.7
GDP deflator 2/	7.7	4.7	4.4	3.5	5.0	5.1	2.4
Private consumption deflator 2/	6.9	5.6	5.1	4.6	5.7	4.4	2.3

Sources: Bank of Italy and ISTAT.

1/ The methodology used for the computation of wholesale price index was revised in 1990.

2/ 1997, first three quarters.

Table 7. Italy: Sectoral Wage and Cost Developments
Per Unit of Dependent Labor

(Changes in percent)

	1991	1992	1993	1994	1995	1996	1997 1/
Total economy							
Gross wages	8.9	5.2	3.1	3.2	3.9	5.0	4.1
Labor costs	8.7	5.8	3.7	2.9	4.8	5.5	4.9
Productivity	0.3	2.0	2.2	3.4	3.3	...	...
Unit labor costs	8.3	3.7	1.5	-0.5	1.5	...	...
Agriculture							
Gross wages	6.5	9.8	5.1	0.2	2.2	1.9	1.9
Labor costs	6.1	9.8	4.9	1.6	2.1	2.7	0.9
Productivity	9.2	6.0	6.4	4.9	4.6	5.5	-0.3
Unit labor costs	-2.8	3.6	-1.4	-3.2	-2.3	-2.6	1.5
Industry							
Gross wages	9.3	6.9	3.6	4.0	3.5	3.4	3.9
Labor costs	9.3	6.9	4.0	2.7	5.2	4.2	5.2
Productivity	0.7	2.8	0.5	4.5	5.3	0.6	1.8
Unit labor costs	8.6	3.9	3.5	-1.8	-0.1	3.6	3.2
Market Services							
Gross wages	9.5	5.3	3.4	3.6	4.3	3.7	4.1
Labor costs	8.4	6.0	4.0	2.8	5.5	4.3	4.6
Productivity	0.0	2.7	2.6	4.2	3.1	...	...
Unit labor costs	8.4	3.3	1.4	-1.3	2.4	...	...

Source: ISTAT.

1/ January–September.

Table 8. Italy: Labor Force, Employment and Unemployment

(In thousands, unless otherwise indicated)

	1991	1992	1993	1994	1995	1996	1997
Labor force	24,245	23,901	22,801	22,680	22,733	22,851	22,892
Employment	21,592	21,353	20,467	20,120	20,009	20,088	20,087
Agriculture	1,823	1,796	1,669	1,573	1,492	1,402	1,370
Industry	6,916	6,812	6,725	6,587	6,492	6,475	6,449
Services	12,854	12,744	12,074	11,959	12,025	12,211	12,268
Dependent employment	15,479	15,315	14,632	14,363	14,242	14,301	14,354
Agriculture	744	760	635	575	548	523	502
Industry	5,727	5,628	5,519	5,404	5,297	5,256	5,241
Services	9,009	8,928	8,479	8,385	8,398	8,523	8,611
Unemployed	2,653	2,549	2,335	2,561	2,724	2,764	2,805
Of which: first-time job seekers	1,285	1,244	1,005	1,048	1,150	1,204	1,225
Memorandum items:							
Unemployment rate 1/ 2/	10.9	10.7	10.2	11.3	12.0	12.1	12.3
Including wage Supplementation fund 3/	11.9	11.8	11.6	12.3	12.7	12.7	12.1
Participation rate (in percent)	41.3	41.0	40.4	40.1	40.1	40.3	40.2

Source: ISTAT.

1/ In percent of labor force.

2/ New methodology starting in 1993; data not comparable to those in previous years.

3/ 1997, third quarter.

Table 9. Italy: Unemployment Rates by Sex and Region 1/

(In percent, seasonally adjusted data) 2/

	Northern Italy			Central Italy			Southern Italy and Islands			Italy		
	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total
1983	12.4	4.9	7.7	15.1	5.8	9.1	23.4	9.4	13.8	16.2	6.6	9.9
1984	13.4	4.9	8.1	14.9	5.8	9.0	23.2	9.3	13.6	16.5	6.6	10.0
1985	13.1	5.0	8.0	15.0	5.9	9.1	24.3	9.8	14.4	16.7	6.8	10.3
1986	13.1	4.9	8.0	15.9	6.1	9.7	27.2	11.4	16.5	17.8	7.4	11.1
1987	12.7	4.8	7.8	15.7	6.2	9.7	30.6	13.6	19.2	18.7	8.1	12.0
1988	11.3	4.1	6.9	16.2	6.1	9.9	32.8	14.6	20.7	18.8	8.1	12.0
1989	10.2	3.4	6.0	17.4	6.5	10.6	33.2	15.0	21.1	18.7	8.1	12.0
1990	8.6	2.9	5.1	15.7	6.2	9.8	31.8	13.6	19.7	17.1	7.3	11.0
1991	8.4	3.0	5.1	15.4	5.9	9.6	31.5	14.1	19.9	16.8	7.5	10.9
1992	8.9	3.4	5.6	13.9	6.0	9.1	29.3	13.7	18.9	16.0	7.5	10.7
1993	9.3	4.1	6.2	13.4	5.8	8.7	25.8	13.5	17.5	14.8	7.6	10.2
1994	10.1	4.7	6.8	14.3	6.7	9.6	27.0	15.5	19.2	15.7	8.7	11.3
1995	10.3	4.4	6.8	15.0	7.4	10.3	29.7	16.8	21.0	16.7	9.2	12.0
1996	10.2	4.2	6.6	14.6	7.5	10.3	30.2	17.5	21.7	16.6	9.4	12.1
1997	10.0	4.3	6.6	14.8	7.2	10.2	31.0	17.9	22.2	16.8	9.5	12.3
1994												
I	10.4	4.8	7.0	14.4	6.4	9.4	26.3	14.8	18.5	15.6	8.5	11.1
II	9.8	4.6	6.7	13.7	6.4	9.2	27.6	15.9	19.7	15.6	8.8	11.3
III	9.2	4.4	6.3	12.9	6.5	8.9	26.9	15.0	18.9	14.9	8.4	10.8
IV	10.8	5.0	7.3	16.4	7.3	10.8	27.2	16.1	19.7	16.5	9.2	11.9
1995												
I	10.6	4.9	7.2	15.2	7.4	10.4	29.5	17.0	21.1	16.8	9.5	12.2
II	10.2	4.2	6.6	14.8	7.2	10.2	29.5	17.1	21.2	16.6	9.2	11.9
III	9.8	4.0	6.3	14.7	7.5	10.3	29.6	16.2	20.6	16.3	8.9	11.7
IV	10.4	4.5	6.9	15.3	7.3	10.4	30.4	16.7	21.2	17.0	9.2	12.1
1996												
I	10.3	4.3	6.7	15.2	7.5	10.5	30.5	17.5	21.7	16.8	9.4	12.2
II	10.1	4.0	6.5	15.4	7.7	10.7	30.2	18.3	22.2	16.7	9.6	12.3
III	9.6	3.9	6.2	13.5	7.3	9.8	29.8	17.3	21.4	15.9	9.1	11.7
IV	10.7	4.6	7.1	14.4	7.5	10.2	30.4	16.8	21.3	16.8	9.3	12.2
1997												
I	10.3	4.9	7.1	15.2	7.5	10.5	30.4	17.6	21.8	16.8	9.7	12.4
II	10.0	4.4	6.7	15.6	7.6	10.7	30.8	18.4	22.5	16.9	9.8	12.5
III	9.3	3.7	6.0	13.5	6.7	9.4	30.5	17.6	21.9	16.0	9.0	11.7
IV	10.3	4.1	6.6	15.0	7.0	10.2	32.2	17.8	22.6	17.3	9.3	12.4

Source: ISTAT.

1/ Due to a methodological revision figures from 1993 onwards are not directly comparable with those of previous years.

2/ Quarterly data refer to the first month of the quarter. Annual data are averages of the quarterly unemployment rates.

Table 10. Italy: General Government Finances

	1991	1992	1993	1994	1995	1996	1997 1/
(In trillions of lire)							
Revenue	625.9	699.3	749.1	748.2	813.9	869.5	940.6
Current	620.8	665.5	735.0	740.6	799.0	860.5	933.1
Tax	366.1	389.2	437.4	437.0	470.1	507.5	556.3
Nontax	254.7	276.3	297.6	303.6	328.9	353.0	376.8
Capital	5.2	33.8	14.1	7.6	14.9	9.1	7.5
Expenditures	770.0	843.0	903.7	906.1	954.7	996.9	995.6
Current	702.6	772.8	819.1	830.6	872.1	922.4	932.3
Wages and salaries	181.8	190.2	193.1	197.4	202.6	218.6	229.0
Goods and services	70.0	75.6	79.9	82.4	82.4	86.9	85.1
Social security	261.3	290.6	302.9	319.5	336.1	360.8	382.3
Subsidies 2/	28.8	27.0	33.9	32.9	30.8	30.0	22.4
Interest payments	145.0	172.6	187.8	180.0	201.1	201.7	185.8
Other current	15.7	16.8	21.5	18.4	19.1	24.4	27.7
Capital	67.4	70.2	84.6	75.5	82.7	74.5	63.3
Fixed investment	46.6	45.5	41.1	37.9	38.7	41.8	40.4
Other 3/	20.8	24.7	43.5	37.6	44.0	32.7	22.9
Primary expenditure	625.0	670.4	715.9	726.1	753.6	795.2	809.8
Primary balance	0.9	28.9	33.2	22.1	60.3	74.3	130.8
Overall balance	-144.1	-143.7	-154.6	-157.9	-140.8	-127.4	-55.0
Debt, end of period	1,449.3	1,633.9	1,846.5	2,047.3	2,204.3	2,323.6	2,387.7
(In percent of GDP)							
Revenue	43.8	46.5	48.3	45.7	46.0	46.4	48.2
Current	43.5	44.3	47.4	45.2	45.1	45.9	47.8
Tax	25.6	25.9	28.2	26.7	26.5	27.1	28.5
Nontax	17.8	18.4	19.2	18.5	18.6	18.8	19.3
Capital	0.4	2.2	0.9	0.5	0.8	0.5	0.4
Expenditures	53.9	56.1	58.3	55.3	53.9	53.2	51.0
Current	49.2	51.4	52.8	50.7	49.2	49.2	47.8
Wages and salaries	12.7	12.7	12.5	12.0	11.4	11.7	11.7
Goods and services	4.9	5.0	5.2	5.0	4.7	4.6	4.4
Social security	18.3	19.3	19.5	19.5	19.0	19.3	19.6
Subsidies 2/	2.0	1.8	2.2	2.0	1.7	1.6	1.1
Interest payments	10.2	11.5	12.1	11.0	11.4	10.8	9.5
Other current	1.1	1.1	1.4	1.1	1.1	1.3	1.4
Capital	4.7	4.7	5.5	4.6	4.7	4.0	3.2
Fixed investment	3.3	3.0	2.7	2.3	2.2	2.2	2.1
Other 3/	1.5	1.6	2.8	2.3	2.5	1.7	1.2
Primary expenditure	43.8	44.6	46.2	44.3	42.6	42.4	41.5
Primary balance	0.1	1.9	2.1	1.3	3.4	4.0	6.7
Overall balance	-10.1	-9.6	-10.0	-9.6	-8.0	-6.8	-2.8
Debt, end of period	101.5	108.7	119.1	124.9	124.5	124.0	122.4

Sources: Bank of Italy, *Relazione Annuale all'Assemblea generale dei partecipanti* (1997); and data provided by the authorities.

1/ Staff estimates.

2/ To producers.

3/ Including the issuance of bonds to replace outstanding tax refund liabilities.

Table 11. Italy: State Sector Finances 1/

(In trillions of lire)

	1991	1992	1993	1994	1995	1996	1997 2/
Revenue	459.0	508.8	526.4	518.7	566.3	596.9	643.6
Tax	353.0	403.0	423.4	408.4	447.1	475.8	520.0
Direct	189.9	230.8	249.1	228.1	248.9	271.0	303.7
Indirect	163.1	172.2	174.4	180.3	198.2	204.8	216.3
Social security contributions 3/	14.8	14.2	24.0	24.0	25.4	32.2	24.2
Other current	79.6	82.2	65.1	69.3	76.7	74.7	82.2
Capital	3.4	3.4	3.9	7.5	7.9	5.2	4.2
Financial operations	8.2	6.1	10.1	9.5	9.2	9.0	13.0
Expenditures	605.9	664.7	680.8	668.6	692.9	725.7	696.2
Primary current	409.1	441.6	434.2	426.9	430.7	462.1	476.8
Wages and salaries	83.1	86.0	87.5	82.0	81.7	116.0	124.5
Pensions	24.7	28.2	30.1	33.8	41.2	11.7	11.1
Goods and services	21.1	23.4	25.7	26.0	24.3	23.6	20.9
Transfers	274.2	296.6	283.0	276.8	274.0	300.3	293.6
Of which:							
to public entities	218.9	232.1	209.6	214.6	132.4	146.6	230.2
Other current	6.0	7.4	7.9	8.3	9.5	10.5	26.7
Interest payments	142.6	168.1	181.4	173.0	195.0	195.1	179.1
Capital	39.9	42.2	45.8	42.4	41.0	42.6	40.3
Fixed investment	8.2	7.0	8.0	4.0	4.4	4.2	4.6
Capital transfers and other	31.7	35.2	37.8	38.4	36.6	38.4	35.7
Financial operations	14.4	12.9	19.4	26.4	26.2	26.0	14.9
Primary expenditure	463.3	496.6	499.4	495.6	497.9	530.6	517.1
Primary balance	-4.3	12.2	27.0	23.1	68.4	66.2	126.5
Overall balance	-147.0	-155.9	-154.4	-149.9	-126.6	-128.9	-52.6
Debt; end of period 4/	1,529.3	1,720.7	1,882.5	2,008.0	2,149.9	2,284.9	2322.2

Sources: Ministry of Treasury and Budget, *Documento di Programmazione Economico-Finanziaria 1998-2000*; *Relazione previsionale e programmatica* (1997); and data provided by the authorities.

1/ Until 1993, unrevised series.

2/ Staff estimates on the basis of preliminary official data.

3/ Paid directly to the Treasury.

4/ Including the stock of tax refund liabilities not yet replaced by government bonds.

Table 12. Italy: State Sector Finances 1/

(In percent of GDP)

	1991	1992	1993	1994	1995	1996	1997 2/
Revenue	32.2	33.9	34.0	31.7	32.0	31.9	33.0
Tax	24.7	26.8	27.3	24.9	25.2	25.4	26.6
Direct	13.3	15.4	16.1	13.9	14.1	14.5	15.6
Indirect	11.4	11.5	11.2	11.0	11.2	10.9	11.1
Social security contributions 3/	1.0	0.9	1.5	1.5	1.4	1.7	1.2
Other current	5.6	5.5	4.2	4.2	4.3	4.0	4.2
Capital	0.2	0.2	0.3	0.5	0.4	0.3	0.2
Financial operations	0.6	0.4	0.7	0.6	0.5	0.5	0.7
Expenditures	42.4	44.2	43.9	40.8	39.1	38.7	35.7
Primary current	28.7	29.4	28.0	26.1	24.3	24.7	24.4
Wages and salaries	5.8	5.7	5.6	5.0	4.6	6.2	6.4
Pensions	1.7	1.9	1.9	2.1	2.3	0.6	0.6
Goods and services	1.5	1.6	1.7	1.6	1.4	1.3	1.1
Transfers	19.2	19.7	18.3	16.9	15.5	16.0	15.0
Of which: To public entities	15.3	15.4	13.5	13.1	7.5	7.8	11.8
Other current	0.4	0.5	0.5	0.5	0.5	0.6	1.4
Interest	10.0	11.2	11.7	10.6	11.0	10.4	9.2
Capital	2.8	2.8	3.0	2.6	2.3	2.3	2.1
Fixed investment	0.6	0.5	0.5	0.2	0.2	0.2	0.2
Capital transfers and other	2.2	2.3	2.4	2.3	2.1	2.0	1.8
Financial operations	1.0	0.9	1.3	1.6	1.5	1.4	0.8
Primary expenditure	32.5	33.1	32.2	30.2	28.1	28.3	26.5
Primary balance	-0.3	0.8	1.7	1.4	3.9	3.5	6.5
Overall balance	-10.3	-10.4	-10.0	-9.1	-7.1	-6.9	-2.7
Debt, end of period 4/	107.1	114.5	121.4	122.6	121.4	122.0	119.0

Sources: Ministry of Treasury and Budget, *Documento di Programmazione Economico-Finanziaria 1998-2000*; *Relazione previsionale e programmatica* (1997); and data provided by the authorities.

1/ Until 1993, unrevised series.

2/ Staff estimates on the basis of preliminary official data.

3/ Paid directly to the Treasury.

4/ Including the stock of tax refund liabilities not yet replaced by government bonds.

Table 13. Italy: Financing of the Central Government Borrowing Requirement

	1992	1993	1994	1995	1996	1997
(In trillions of lire)						
Central government cash deficit	162.7	147.0	149.7	126.9	128.9	52.6
Debt settlements 1/	0.0	10.8	9.3	4.1	13.5	-0.4
Privatization receipts 2/	0.0	0.0	-5.9	-8.4	-6.2	-21.2
Central government borrowing requirement	162.8	157.8	153.1	122.6	136.2	31.1
Domestic financing	162.8	145.4	143.5	97.0	120.8	27.0
Medium- and long-term	91.1	163.1	225.6	88.7	126.9	98.9
Of which: net purchases						
by Bank of Italy	74.0	-0.7	133.5	8.6	-6.7	n.a.
Short-term	71.7	-17.7	-82.1	8.3	-6.1	-71.9
Treasury bills	46.5	5.6	11.7	-1.5	-27.5	-82.3
Of which: net purchases						
by Bank of Italy	-9.9	46.6	7.4	-35.6	6.0	n.a.
Post Office deposits	9.1	8.9	21.7	15.8	13.3	10.4
Account at the Bank of Italy 3/	7.7	-34.5	-111.7	-8.4	17.7	-2.3
Other	8.4	2.3	-3.8	2.4	-9.6	2.3
Foreign financing	0.0	12.4	9.6	25.6	15.4	4.1
Memorandum item:						
Monetary financing	-2.7	-3.4	-54.7	-33.4	-6.5	-49.5
(In percent of total)						
Central government borrowing requirement	100.0	100.0	100.0	100.0	100.0	100.0
Domestic financing	100.0	92.1	93.7	79.1	88.7	86.8
Medium- and long-term	56.0	103.4	147.4	72.3	93.2	318.0
Short-term	44.0	-11.2	-53.6	6.8	-4.5	-231.2
Of which: treasury bills	28.6	3.5	7.6	-1.2	-20.2	-264.6
Foreign financing	0.0	7.9	6.3	20.9	11.3	13.2
Memorandum item:						
Monetary financing	-1.7	-2.2	-35.7	-27.2	-4.8	-159.2

Sources: Bank of Italy *Relazione Annuale all'Assemblea generale dei partecipanti* (1997); and data provided by the authorities.

1/ Issues of securities to replace public liabilities (notably tax refunds).

2/ Only those accruing to the Treasury.

3/ In 1994, monetary financing of the government budget deficit was prohibited; the Treasury's current account with the central bank was accordingly replaced by a Treasury payments account, whose balance must be kept above a specified minimum.

Table 14. Italy: Issues of Government Securities 1/

	1992	1993	1994	1995	1996	1997
(Stocks, end of period, in billions of lire) 2/						
Total	1,307,117	1,476,731	1,714,676	1,821,944	1,923,202	1,966,270
Of which:						
Treasury bills (BOT)	387,879	394,358	413,513	412,013	384,560	318,000
Zero coupon (CTZ)	0.0	0.0	0.0	47,217	107,141	152,707
ECU-denominated bills (BTE)	7,673	7,443	0.0	0.0	0.0	0.0
Floating-rate bonds (CCT)	495,924	517,537	556,104	529,086	558,773	572,797
Fixed-rate bonds (BTP)	287,072	426,003	538,054	640,694	697,356	770,877
Fixed-rate renewable bonds (CTO)	75,883	75,640	70,560	60,597	45,811	25,919
ECU-denominated bonds (CTE)	47,362	49,524	55,311	48,821	41,045	37,486
(Net issues, in billions of lire)						
Total	137,213	164,927	226,363	87,198	97,655	11,467
Of which:						
Treasury bills (BOT)	44,731	6,480	19,155	-1,500	-27,453	-82,310
Zero coupon (CTZ)	0.0	0.0	0.0	38,299	51,515	41,484
ECU-denominated bills (BTE)	1,751	-738	-7,443	0.0	0.0	0.0
Floating-rate bonds (CCT)	60,024	20,698	37,629	-29,781	30,460	7,982
Fixed-rate bonds (BTP)	33,576	138,485	104,458	95,925	57,652	68,590
Fixed-rate renewable bonds (CTO)	3,848	-7,041	-3,108	-10,628	-20,149	-19,892
ECU-denominated bonds (CTE)	319	-656	2,736	-8,163	-4,734	4,354
(Net issues, in percent of total)						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Of which:						
Treasury bills (BOT)	32.6	3.9	8.5	-1.7	-28.1	-717.8
Zero coupon (CTZ)	0.0	0.0	0.0	43.9	52.8	361.8
ECU-denominated bills (BTE)	1.3	-0.4	-3.3	0.0	0.0	0.0
Floating-rate bonds (CCT)	43.7	-12.5	16.6	-34.2	31.2	69.6
Fixed-rate bonds (BTP)	24.5	84.0	46.1	110.0	59.0	598.2
Fixed-rate renewable bonds (CTO)	2.8	-4.3	-1.4	-12.2	-20.6	-173.5
ECU-denominated bonds (CTE)	0.2	-0.4	1.2	-9.4	-4.8	38.0

Sources: Bank of Italy, *Supplementi al Bollettino Statistico*; and data provided by the authorities.

1/ Excluding foreign currency loans.

Table 15. Italy: Official Development Assistance

(In millions of U.S. dollars)

	1990	1991	1992	1993	1994	1995	1996
Official development assistance, net disbursements	3,395	3,352	4,121	3,043	2,705	1,623	2,415
In percent of GDP	0.31	0.30	0.34	0.31	0.27	0.15	0.20
Bilateral loans and grants	2,112	2,245	2,430	1,930	1,834	806	811
Multilateral contributions	1,283	1,107	1,691	1,113	870	817	1,604
Aid through EU	435	632	593	566	613	634	216
Capital subscriptions to IDBs	490	34	616	237	16	7	n.a.
Contributions to other multi- lateral institutions	358	441	482	310	241	176	n.a.
Memorandum item:							
Official development assistance, commitments	3,607	4,882	4,105	3,602	2,935	2,733	2,604
In percent of GDP	0.33	0.42	0.34	0.37	0.29	0.25	0.21

Source: OECD, *Development Cooperation Reports*, various years; and data provided by the authorities.

Table 16. Italy: Medium-Term Fiscal Plan

(In percent of GDP)

	<u>1996</u> Actual	<u>1997</u> Staff estimates	<u>1998</u> Plan	<u>1999</u> Plan	<u>2000</u> Plan
Macroeconomic indicators (percent change; unless otherwise indicated)					
Real GDP growth	0.7	1.2	2.0	2.5	2.7
Inflation 1/	4.4	2.2	1.8	1.5	1.5
Employment growth	0.2	0.0	0.5	0.7	0.9
Unemployment rate (in percent)	12.1	12.3	12.0	11.5	11.0
General government 2/					
Revenue	46.4	48.2	47.5	47.1	46.7
Current	45.9	47.8	47.2	46.7	46.3
Capital	0.5	0.4	0.3	0.4	0.3
Expenditure	53.2	51.0	50.3	49.5	48.5
Primary	42.4	41.5	41.8	41.1	36.7
Interest	10.8	9.5	8.6	8.4	7.9
Primary balance	4.0	6.7	5.8	6.0	6.1
Overall balance	-6.8	-2.8	-2.8	-2.4	-1.8
Privatization proceeds	0.3	1.1	0.5	0.5	0.5
Debt	124.0	122.4	121.1	119.1	116.4

Sources: Ministry of Treasury and Budget, *Documento di programmazione economico-finanziario, 1997* and *Relazione Previsionale e Programmatica, 1997*.

1/ Households' consumption deflator.

2/ For 1997, staff estimates on the basis of preliminary official data.

Table 17. Measures in the 1998 State Sector Budget

	In Lit trillions	In percent of GDP
Net Revenue	11.6	0.6
VAT measures	5.9	
Withholding tax on self-employed	1.9	
Administrative measures to enhance tax compliance	2.0	
Reorganization of Finance police	0.6	
Ecology tax and other measures	1.2	
Expenditures	13.4	0.7
Welfare reform	4.1	
Health spending	1.1	
- Spending rationalization	0.3	
- Contribution from auto insurance	0.5	
- Cuts to physiotherapy grants and other provisions	0.3	
Personnel costs	1.0	
- School cost rationalization	0.4	
- Block on hirings and swaps to part-time	0.4	
Cash limits on decentralized authorities	2.5	
- Regions	2.0	
- Universities and research institutions	0.5	
Transfers to firms	3.5	
- Current	2.5	
- Capital	1.0	
Cuts in defence and procurement spending	1.0	
Crackdown on disability pensions	0.2	
Total	25.0	1.2

Sources: Data provided by the authorities.

Table 18. Italy: Selected Monetary Indicators

	1990	1991	1992	1993	1994	1995	1996	1997
	(In trillions of lire)							
Narrow money (M1)								
Period average	442.4	488.7	492.1	529.6	547.4	555.1	576.6	627.2
End of period	482.8	538.0	545.8	579.1	598.4	605.6	626.6	674.8
Broad money (M2) 1/								
Period average	678.4	716.9	736.7	780.3	788.4	773.4	803.0	871.2
End of period	759.4	807.8	814.2	841.3	847.4	834.1	863.3	941.0
Domestic credit, end of period	1,990.9	2,243.1	2,505.9	2,696.5	2,864.3	3,009.1	3,162.1	3,263.9
	(In percent of GDP)							
Narrow money (M1)								
Period average	33.8	34.2	32.8	34.2	33.4	31.3	30.8	32.2
End of year	36.8	37.7	36.3	37.4	36.5	34.2	33.4	34.6
Broad money (M2) 1/								
Period average	51.8	50.2	49.0	50.3	48.1	43.7	42.9	44.7
End of year	57.9	56.6	54.2	54.3	51.7	47.1	46.1	48.3
Domestic credit	151.9	157.1	166.8	173.9	174.8	169.9	168.8	167.4

Sources: Bank of Italy; and ISTAT.

1/ Excluding CDs with maturity of more than 18 months.

Table 19. Italy: Selected Interest Rates

(Period average in percent)

	1997											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Central Bank Rates												
Discount rate	7.23	6.75	6.75	6.75	6.75	6.73	6.25	6.25	6.25	6.25	6.25	6.25
Fixed term advances	8.25	8.25	8.25	8.25	8.25	7.75	7.75	7.75	7.75	7.75	7.75	7.00
Repurchase agreements	7.50	7.41	7.42	7.21	7.00	6.83	6.85	6.83	6.79	...	6.63	6.20
Commercial Bank Rates												
Average deposit rate	5.60	5.39	5.28	5.18	5.10	4.95	4.69	4.55	4.49	4.29	4.24	4.19
Interbank rate - overnight	7.68	7.51	7.45	7.27	6.99	6.99	6.99	6.84	6.80	6.88	6.61	6.26
Minimum loan rate	7.31	7.20	7.15	7.08	6.96	6.81	6.73	6.67	6.61	6.47	6.37	6.12
Government Securities Market												
3 month (gross)	6.98	6.75	7.10	6.69	6.39	6.65	6.52	6.53	5.81	6.21	5.96	5.17
12 month (gross)	6.55	6.67	7.24	6.78	6.45	6.45	6.37	6.43	5.73	5.86	5.59	5.02
3 month (net of taxes)	6.07	5.88	6.18	5.83	5.57	5.78	5.68	5.68	5.06	5.41	5.19	4.51
12 month (net of taxes)	5.68	5.79	6.28	5.88	5.60	5.60	5.53	5.59	4.98	5.10	4.85	4.36
Treasury bonds -10 year (gross)	7.27	7.14	7.56	7.58	7.21	6.95	6.43	6.57	6.26	6.12	6.05	5.81
Treasury certificate in ECU (net)	4.56	4.58	4.57	4.52	4.32	4.19	4.35	4.23	4.47	4.76	4.73	4.75
Germany:												
Money Market												
Interbank Deposit rate (3month)	3.12	3.13	3.15	3.08	3.01	3.07	3.09	3.16	3.10	3.40	3.46	3.44
Treasury bill (12 month)	3.09	3.16	3.24	3.21	3.15	3.11	3.13	3.24	3.29	3.54	3.70	3.70
Government Bond Yield	3.05	3.05	3.25	3.25	3.20	3.20	3.20	3.20	3.20	3.75	3.75	3.75
	5.10	4.87	5.10	5.16	5.07	5.00	4.88	5.09	5.09	5.24	5.25	5.07
		1989	1990	1991	1992	1993	1994	1995	1996	1997		
Central Bank Rate												
Discount rate		...	12.88	11.87	12.84	9.91	7.44	8.59	8.53	6.54		
Fixed term advances		...	...	...	13.67	10.75	8.42	10.15	9.94	7.90		
Repurchase agreements		...	...	10.89	13.57	10.14	8.25	10.12	...	6.96		
Commercial Bank Rate												
Deposit rate		...	...	...	...	7.79	6.20	6.45	6.49	4.83		
Interbank rate - overnight		11.97	10.93	11.83	14.38	10.25	8.20	10.07	9.10	7.02		
Average loan rate		...	11.74	11.33	12.50	10.51	8.36	9.60	9.00	6.79		
Government Securities Market												
3 month (gross)		12.65	12.28	12.66	14.48	10.47	8.84	10.73	8.61	6.40		
12 month (gross)		12.55	12.53	12.39	14.02	10.74	9.50	10.96	8.32	6.26		
3 month (net of taxes)		10.96	10.64	10.97	12.53	9.09	7.68	9.31	7.48	5.57		
12 month (net of taxes)		10.81	10.80	10.68	12.05	9.27	8.21	9.46	7.20	5.44		
Treasury bonds-medium term (net)												
Treasury bonds-10 year (gross)		13.23	13.59	13.10	13.12	11.25	10.28	11.88	9.22	6.75		
Treasury certificate in ECU (net)		9.34	10.19	9.05	9.00	6.57	6.45	7.80	5.38	4.50		
Germany:												
Money Market												
Interbank Deposit rate (3month)		6.59	7.92	8.84	9.42	7.49	5.35	4.50	3.27	3.18		
Treasury bill (12 month)		7.07	8.43	9.19	9.46	7.24	5.31	4.48	3.27	3.30		
Government Bond Yield		6.28	8.13	8.27	8.32	6.22	5.05	4.40	3.30	3.32		
		7.09	8.88	8.63	7.96	6.28	6.67	6.50	5.63	5.08		
Memorandum items:												
Increase in the cost of living		...	6.10	6.47	4.94	4.42	3.98	5.43	3.90	1.72		
Withholding tax rate on:												
Ordinary deposits		25.00	30.00	30.00	30.00	30.00	30.00	30.00	27.00	27.00		
Six-month CDs		25.00	25.00	25.00	26.25	30.00	30.00	30.00	27.00	27.00		
Treasury securities		6.25	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50		

Table 20. Italy: Selected Monetary and Credit Aggregates

	1990	1991	1992	1993	1994	1995	1996	1997
(End-of-period stocks, in trillions of lire)								
Monetary aggregates 1/								
M1	483	538	546	579	598	606	627	675
M2	759	808	814	841	847	834	863	941
M2 + REPOS	773	861	914	937	937	961	982	...
Total liquid assets	1,222	1,363	1,519	1,550	1,575	1,678	1,638	1,517
Total financial assets	1,888	2,143	2,340	2,521	2,718	2,878	3,032	3,217
Total credit	2,133	2,406	2,699	2,914	3,085	3,258	3,410	3,547
Total domestic credit	1,991	2,243	2,506	2,697	2,864	3,009	3,162	3,270
Credit to the nonstate sector	756	861	955	992	1,007	1,037	1,065	1,076
of which:								
Short-term	456	514	571	559	530	549	552	552
Medium-and long-term	300	347	384	433	476	488	513	525
State sector debt	1,260	1,412	1,595	1,766	1,932	2,073	2,204	2,282
of which:								
Foreign	1,139	55	65	85	96	119	125	139
(End-of-period stocks, in percent of GDP)								
Total credit	163	169	180	188	188	184	182	182
Total domestic credit	152	157	167	174	175	170	169	168
Credit to the nonstate sector	58	60	64	64	61	59	57	55
of which:								
Short-term	35	36	38	36	32	31	29	28
Medium and long-term	23	24	26	28	29	28	27	27
State sector debt	85	88	94	103	108	109	111	113
of which:								
Foreign	2.7	79.8	3.7	4.2	5.2	5.4	6.4	6.4
(Year-on-year changes, in percent)								
Monetary aggregates 1/								
Base money, adjusted	10.1	9.7	7.1	7.2	2.8	2.6	2.5	2.5
Base money	7.4	5.6	4.0	-7.7	-2.7	-9.6	2.6	8.9
M1	6.8	11.4	1.5	6.1	3.3	1.2	3.5	7.7
M2	6.7	6.4	0.8	3.3	0.7	-1.6	3.5	9.0
M2 + REPOS	7.4	11.4	6.1	2.5	0.0	2.5	2.2	...
Total liquid assets	10.5	11.5	11.4	2.1	1.6	6.5	-2.4	-7.4
Total financial assets	13.4	13.5	9.2	7.7	7.8	5.9	5.4	6.1
Total credit	14.5	12.8	12.2	7.9	5.9	5.6	4.7	4.0
Total domestic credit	13.1	12.7	11.7	7.6	6.2	5.1	5.1	3.4
Credit to the nonstate sector	15.1	13.6	10.1	4.2	1.2	2.6	2.6	5.1
of which:								
Short-term	16.0	12.7	11.1	-2.2	-5.1	3.6	0.5	-0.1
Medium- and long-term	16.0	15.5	10.6	12.8	9.9	2.4	5.2	2.3
State sector debt	12.8	12.1	13.0	10.7	9.4	7.3	6.4	3.5

Source: Bank of Italy.

1/ Adjusted base money excludes the effect of discretionary changes in reserve requirements and penalties for nonobservance of credit ceilings. The definition of M1 consists of currency in circulation and sight deposits held with commercial banks and the post office with commercial banks and the post office; M2 is defined as M1 plus savings deposits held with commercial banks and the post office plus CDs; and total liquid asset is made up of M2 plus treasury bills, banks' repurchase agreements with customers, postal deposits, and bankers' acceptances, and SCI CDs.

Table 21. Italy: Balance Sheet of Banks

(End-of-period stocks, in billions of lire)

	1992	1993	1994	1995	1996	1997 1/
Assets						
Reserves	131,957	108,514	92,692	78,996	80,893	84,870
Interbank loans	157,849	171,104	165,436	151,979	182,129	146,802
Loans to residents	989,183	1,028,446	1,039,792	1,073,410	1,090,929	1,109,681
Short-term	571,745	559,308	535,159	556,942	556,364	552,600
Long-term	417,438	469,138	504,633	516,468	534,565	555,500
Securities	327,513	349,770	385,969	352,260	383,583	354,333
Repurchase agreements	12,511	30,351	16,846	14,771	22,264	21,486
Shares	3,020	3,172	3,392	1,661	2,565	3,699
Participations	38,743	40,255	46,675	49,544	55,101	55,332
Nonperforming loans and protested bills	54,729	70,185	91,108	110,269	123,117	119,590
Foreign assets	165,187	229,057	201,953	231,119	295,729	291,322
Liabilities and capital account						
Deposits	852,840	919,115	923,371	935,199	959,577	867,700
Current accounts	432,085	462,160	478,186	477,407	506,682	480,239
Savings accounts	144,762	141,747	135,806	118,429	114,841	113,396
Certificates of deposit	275,994	315,207	309,376	339,363	338,055	263,531
Deposits in foreign currencies	11,274	14,178	14,830	20,548	19,962	25,094
Deposits by nonresidents	2,191	20,291	13,858	12,574	14,644	17,682
Interbank liabilities	159,320	179,086	166,671	166,069	193,714	161,824
Securities	166,407	194,113	215,676	215,286	280,213	343,818
Repurchase agreements	141,951	140,386	132,680	164,501	174,006	202,090
Foreign liabilities	367,496	369,979	375,663	343,580	364,080	364,772
Borrowings from Bank of Italy	8,936	2,722	2,834	7,989	1,897	1,699
Public funds	4,074	5,204	5,644	2,272	2,486	2,283
Capital	189,993	206,017	219,387	232,439	250,188	256,956
Other	-10,325	14,231	1,937	-3,326	10,147	-5,169
Memorandum items:						
Net foreign liabilities	202,309	140,922	173,710	112,461	68,351	73,450
Loans to residents in foreign currencies	178,306	155,898	131,962	104,488	90,615	...
Loans to nonresidents	17,036	22,312	17,901	16,124	17,861	17,861

Source: Bank of Italy.

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Table 22. Italy: Domestic Financial Assets Held by the Nonstate Sector

	1990	1991	1992	1993	1994	1995	1996	1997 1/
(End-of-period stocks, in trillions of lire)								
M1	482.8	538.0	545.8	579.1	598.4	605.6	626.6	620.6
Savings deposits	178.4	161.8	147.0	144.1	138.3	121.0	118.4	117.8
Certificates of deposits:								
Short-term	746.9	811.6	923.9	872.9	716.0	635.2	720.8	874.7
Medium- and long-term	105.4	139.5	180.3	226.1	236.9	279.1	269.4	171.4
Postal savings deposits	23.6	26.9	29.1	30.9	39.2	43.9	46.3	5.0
M2	759.4	807.8	814.2	841.3	847.4	834.1	863.3	876.5
Repos	13.7	53.3	99.6	95.7	89.9	126.9	118.8	145.3
Postal savings bonds	57.2	61.9	66.6	72.2	87.1	97.8	110.6	115.7
Treasury bills (BOT and BTE)	280.3	296.1	351.2	311.1	312.7	339.1	275.7	222.2
Bankers' acceptances	1.5	2.1	1.9	1.6	1.1	0.9	0.4	0.3
Total Liquid Assets	1112.2	1221.3	1333.5	1321.9	1338.3	1398.7	1368.8	1360.0
Medium- and long-term								
government bonds	450.7	493.7	492.3	549.4	640.5	692.6	703.4	694.6
Other bonds	93.4	120.3	128.8	166.4	186.1	187.1	251.5	324.8
Shares in mutual funds	47.4	56.2	60.7	110.1	130.2	126.8	197.5	321.2
Other financial assets	4.8	4.0	2.8	2.9	4.4	4.2	6.7	10.1
Domestic financial assets	1818.6	2037.1	2203.3	2379.1	2536.4	2688.6	2799.4	2888.6
(End-of-period stocks, in percent of total)								
M1	26.5	26.4	24.8	24.3	23.6	22.5	22.4	21.5
Savings deposits	9.8	7.9	6.7	6.1	5.5	4.5	4.2	4.1
Certificates of deposits:								
Short-term	41.1	39.8	41.9	36.7	28.2	23.6	25.7	30.3
Medium- and long-term	5.8	6.8	8.2	9.5	9.3	10.4	9.6	5.9
Postal savings deposits	1.3	1.3	1.3	1.3	1.5	1.6	1.7	0.2
M2	41.8	39.7	37.0	35.4	33.4	31.0	30.8	30.3
Repos	0.8	2.6	4.5	4.0	3.5	4.7	4.2	5.0
Postal savings certificates	3.1	3.0	3.0	3.0	3.4	3.6	4.0	4.0
Treasury bills (BOT and BTE)	15.4	14.5	15.9	13.1	12.3	12.6	9.8	7.7
Bankers' acceptances	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Total Liquid Assets	61.2	60.0	60.5	55.6	52.8	52.0	48.9	47.1
Medium- and long-term								
government bonds	24.8	24.2	22.3	23.1	25.3	25.8	25.1	24.0
Other bonds	5.1	5.9	5.8	7.0	7.3	7.0	9.0	11.2
Shares in mutual funds	2.6	2.8	2.8	4.6	5.1	4.7	7.1	11.1
Other financial assets	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.4
Domestic financial assets	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Year-on-year changes, in percent)								
M1	6.8	11.4	1.5	6.1	3.3	1.2	3.5	-1.0
Savings deposits	-2.0	-9.3	-9.2	-2.0	-4.0	-12.5	-2.2	-0.5
Certificates of deposits:								
Short-term	29.7	8.7	13.8	-5.5	-18.0	-11.3	13.5	21.3
Medium- and long-term	37.2	32.3	29.3	25.4	4.8	17.8	-3.5	-36.4
Postal savings deposits	19.5	14.1	7.9	6.2	26.9	12.2	5.4	-89.2
M2	6.7	6.4	0.8	3.3	0.7	-1.6	3.5	1.5
Repos	67.1	289.1	86.7	-3.8	-6.1	41.1	-6.4	22.3
Postal savings certificates	9.8	8.1	7.6	8.4	20.6	12.3	13.1	4.6
Treasury bills (BOT and BTE)	13.0	5.6	18.6	-11.4	0.5	8.4	-18.7	-19.4
Bankers' acceptances	-4.5	36.6	-8.5	-19.3	-26.7	-21.0	-50.8	-35.2
Total Liquid Assets	10.5	11.5	11.4	2.1	1.6	6.5	-2.4	-6.5
Medium- and long-term								
government bonds	19.1	9.5	-0.3	11.6	16.6	8.1	1.6	-1.3
Other bonds	17.7	28.8	7.1	29.2	11.9	0.5	34.4	29.1
Shares in mutual funds	-3.6	18.6	8.0	81.5	18.2	-2.6	55.8	62.6
Other financial assets	141.9	-17.3	-29.6	2.8	51.7	-4.9	60.1	51.3
Domestic financial assets	12.6	12.0	8.2	8.0	6.6	6.0	4.1	3.2

Source: Bank of Italy.

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Table 23. Italy: Exchange Rate Developments

	1996				1997			
	I	II	III	IV	I	II	III	IV
(In lire per unit of foreign currency)								
Exchange rate of the Italian lira vis-a-vis								
U.S. dollar								
Average	1,232.4	1,573.2	1,555.3	1,521.2	1,638.9	1,690.1	1,763.0	1,720.4
End of period	1,470.9	1,568.9	1,534.5	1,526.3	1,677.1	1,702.1	1,726.4	1,759.2
Deutsche mark								
Average	789.2	1,071.3	1,021.7	1,015.6	988.1	986.1	975.0	980.0
End of period	911.3	1,063.1	1,008.2	999.7	999.6	975.9	977.9	981.6
ECU								
Average	1,587.5	2,023.2	1,951.2	1,938.5	1,927.1	1,933.4	1,925.3	1,932.9
End of period	1,787.4	2,013.6	1,929.5	1,913.7	1,948.3	1,923.4	1,921.5	1,940.7
Exchange rate indices (period averages) 1/								
Nominal effective exchange rate								
MERM (1985=100)	101.4	76.0	78.4	79.6	79.2	78.2	77.2	78.2
Real effective exchange rate								
Producer prices 2/	115.6	99.5	103.6	104.8	105.2	104.4	104.1	...
Normalized unit labor costs	99.6	74.9	78.9	80.5	81.4	80.4	80.1	80.1
(Year-on-year percent changes)								
Exchange rate of the Italian lira vis-a-vis								
U.S. dollar								
Average	-0.7	-4.0	-6.8	-5.5	4.2	8.7	15.9	13.0
End of period	27.8	-8.3	-6.4	-5.3	6.9	10.9	13.1	14.9
Deutsche mark								
Average	5.6	-3.3	-14.5	-9.7	-7.8	-3.5	-4.0	-1.5
End of period	20.0	-14.0	-14.9	-12.0	-6.0	-3.2	-2.2	-0.3
ECU								
Average	3.5	-3.1	-12.1	-8.2	-4.8	-0.9	-0.7	0.6
End of period	15.9	-12.1	-12.4	-9.8	-3.2	-0.3	0.2	1.4
Exchange rate indices (period averages) 1/								
Nominal effective exchange rate								
MERM (1985=100)	-2.4	4.1	14.7	9.8	4.2	-0.3	-3.0	-2.9
Real effective exchange rate								
Producer prices 2/	-2.1	7.8	16.9	11.1	5.7	0.8	-0.7	...
Normalized unit labor costs	-1.4	3.5	14.9	10.7	8.6	2.0	-0.5	-0.9

Sources: Bank of Italy; IMF, *International Financial Statistics*; IMF, Research Department.

1/ Foreign currency per Italian lira.

2/ Bank of Italy index for manufacturing goods in 14 countries.

Table 24. Italy: Summary Balance of Payments

(In billions of lire unless otherwise noted; on transaction basis)

	1997										
	1990	1991	1992	1993	1994	1995	1996	1997 1/	I	II	III
Trade balance	1,128	-244	3,969	51,990	57,181	72,882	93,630	60,451	16,870	19,843	23,738
Imports (f.o.b.)	-202,387	-209,975	-215,466	-214,223	-250,864	-308,293	-293,315	-236,708	-73,982	-84,979	-77,747
Exports (f.o.b.)	203,515	209,731	219,435	266,213	308,045	381,175	386,945	297,159	90,852	104,822	101,485
Net invisibles	-20,779	-29,194	-39,936	-35,922	-34,366	-29,202	-30,436	-14,250	-2,422	-8,003	-3,825
Services balance	-459	57	-4,912	-289	1,755	1,011	3,134	3,775	-400	1,678	2,497
Transfers, net	-4,727	-4,480	-7,054	-6,766	-9,368	-13,851	-13,116	-11,894	-3,308	-3,935	-4,651
Current Account 2/ (In percent of GDP)	-19,651	-29,438	-35,967	16,068	22,815	43,680	63,194	46,201	14,448	11,840	19,913
Capital account	-1.5	-2.1	-2.4	1.0	1.4	2.5	3.4	...	3.1	2.4	4.2
Capital account	52,164	29,050	10,317	14,799	-22,273	-6,312	-9,471	-1,035	11,448	-21,902	9,419
Errors and omissions	-17,357	-8,183	-6,898	-28,661	2,767	-34,458	-33,126	-24,775	-26,392	8,347	-6,730
Overall balance	15,156	-8,571	-32,548	2,206	3,309	2,910	20,597	20,391	-496	-1,715	22,602

Sources: Bank of Italy, *Annual Report* for 1996, and *Supplementi al Bollettino Statistico*.

1/ January–October.

2/ Includes capital transfers.

Table 25. Italy: Foreign Trade

(Year-on-year percent change, unless otherwise indicated)

	1990	1991	1992	1993	1994	1995	1996	1997				
								I	II	III		
Export (in billions of lire) 1/	203,516	209,731	219,436	266,214	308,046	381,175	386,946	297,159	7	90,851	104,823	101,485
Changes in:												
Value	5.6	3.1	4.6	21.3	15.7	23.7	1.5	3.8	7	-4.2	5.2	10.7
Unit Value	2.1	2.9	0.7	11.4	3.7	9.3	4.3	-1.7	8	-2.7	-0.6	...
Volume	3.5	0.1	3.8	8.9	11.7	13.3	-2.7	2.2	8	-1.6	5.8	...
Imports (in billions of lire)	217,703	225,748	232,111	232,991	272,382	335,661	319,396	258,058	7	81,221	92,051	84,786
Changes in:												
Value	3.7	3.7	2.8	0.4	16.9	23.2	-4.8	9.2	7	-4.9	13.8	21.0
Unit Value	-0.7	-0.8	-0.6	11.7	4.0	12.3	0.0	-1.8	8	-2.6	-1.1	...
Volume	4.5	4.4	3.4	-10.2	12.4	9.8	-5.0	6.1	8	-2.4	15.1	...
Trade balance (in billions of lire)	-14,188	-16,017	-12,674	33,223	35,664	45,514	67,550	39,101	7	9,631	12,771	16,699
(in percent of GDP)	-1.1	-1.1	-0.8	2.1	2.2	2.6	3.6	2.7	7	2.0	2.6	3.4

Sources: Bank of Italy; and ISTAT.

Table 26. Italy: Commodity Composition of External Trade

	1990	1991	1992	1993	1994	1995	1996
	(In percent of total exports)						
Exports							
Agricultural products	2.6	2.9	2.6	2.5	2.7	2.6	2.6
Food and beverages	4.0	4.3	4.7	4.6	4.3	4.2	4.2
Fuel and energy products	2.1	2.2	2.1	2.0	1.6	1.3	1.4
Chemical products	7.5	7.4	7.8	7.8	7.9	8.2	8.2
Minerals	8.6	8.2	8.1	8.5	8.5	8.5	7.7
Metal and mechanical industries	26.2	26.4	26.2	26.7	26.3	26.8	27.7
Transportation equipment	10.6	10.6	10.0	9.0	9.4	10.0	10.0
Textile and clothing	12.3	12.2	12.2	11.9	12.0	11.3	11.3
Leather and footwear	6.2	5.7	5.5	5.5	5.8	5.4	5.6
Other	19.7	20.3	20.6	21.3	21.4	21.7	21.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(In percent of total imports)						
Imports							
Agricultural products	6.6	7.0	6.4	6.5	6.3	5.9	5.9
Food and beverages	7.2	7.5	7.8	8.2	7.8	7.1	7.0
Fuel and energy products	12.1	11.4	10.2	11.5	9.9	9.1	10.5
Chemical products	12.6	12.3	12.6	13.7	14.1	14.1	14.2
Minerals	11.4	10.6	10.4	10.6	11.4	12.3	10.7
Metal and mechanical industries	13.7	13.9	13.9	13.4	13.1	14.1	14.9
Transportation equipment	11.9	12.8	14.0	11.0	10.4	10.5	11.1
Textile and clothing	4.9	5.1	5.3	5.4	5.7	5.3	5.1
Leather and footwear	1.5	1.4	1.5	1.7	2.2	2.0	2.1
Other	18.1	18.0	17.9	18.1	19.1	19.5	18.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Bank of Italy, *Annual Report*, 1996.

Table 27. Italy: Geographical Distribution of Trade 1/

	1990	1991	1992	1993	1994	1995	1996	1997 2/
(In percent of total exports)								
Exports								
Industrial countries	80.1	79.3	77.5	74.9	74.9	74.8	73.0	74.4
EU	58.2	59.0	57.7	53.5	53.8	53.5	51.4	51.7
Of which:								
France	16.4	15.2	14.6	13.2	13.2	13.1	12.5	12.3
Germany	19.0	21.0	20.4	19.5	19.1	18.9	17.4	17.1
United Kingdom	7.1	6.7	6.6	6.4	6.5	6.2	6.5	6.9
Spain	4.9	5.1	5.1	4.3	4.7	4.9	4.9	5.1
Switzerland	4.5	4.2	4.0	3.9	3.7	3.7	3.7	3.8
United States	7.6	6.9	7.0	7.7	7.7	7.2	7.3	7.9
Oil exporting countries (OPEC)	4.1	4.8	5.2	4.9	3.8	3.3	3.5	3.4
Non-oil developing countries	12.9	13.1	14.9	16.4	17.1	17.2	17.9	16.5
Other countries	3.0	2.9	2.4	3.9	4.2	4.7	5.6	5.6
(In percent of total imports)								
Imports								
Industrial countries	76.3	76.6	88.1	86.7	87.2	86.9	87.0	85.5
EU	57.4	57.7	52.2	45.7	46.7	46.2	44.9	45.2
Of which:								
France	14.2	14.2	12.8	11.2	11.2	11.4	10.7	10.8
Germany	21.2	20.9	19.1	16.0	15.9	15.7	14.7	14.4
United Kingdom	5.2	5.7	5.1	4.8	5.1	5.0	5.2	5.1
Spain	3.0	3.5	3.0	2.8	3.2	3.2	3.3	3.5
Switzerland	4.6	4.4	4.0	4.2	4.0	3.6	3.4	3.3
United States	5.1	5.6	4.6	4.4	3.8	3.9	3.9	4.2
Oil exporting countries (OPEC)	7.1	7.1	5.5	5.3	4.4	4.5	4.9	6.0
Non-oil developing countries	12.9	12.4	2.4	4.2	4.8	4.8	4.4	4.9
Other countries	3.7	3.9	4.0	3.7	3.7	3.8	3.7	3.7
(In percent of GDP)								
Trade balance	-1.1	-1.1	-2.8	-1.1	-1.4	-1.7	-0.8	-1.6
Industrial countries	-0.2	-0.5	-4.0	-3.0	-3.5	-4.0	-3.6	-3.5
EEC 12	-0.5	-0.5	-0.7	0.8	0.7	0.8	1.0	0.5
Of which:								
France	0.2	0.0	-0.1	0.2	0.2	0.2	0.3	0.1
Germany	-0.6	-0.2	-0.4	0.4	0.4	0.4	0.4	0.3
United Kingdom	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Spain	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2
Switzerland	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0
United States	0.3	0.1	0.2	0.5	0.7	0.6	0.7	0.6
Oil exporting countries (OPEC)	-0.5	-0.4	-0.2	-0.1	-0.2	-0.3	-0.3	-0.6
Non-oil developing countries	-0.1	0.0	1.8	2.1	2.2	2.6	2.8	2.1
Other countries	-0.9	-0.9	-2.4	-1.1	-1.4	-1.8	-1.2	-1.9

Source: Bank of Italy.

1/ Customs basis.

2/ January-March.

Table 28. Italy: Services and Transfers

(In billions of lire)

	1990	1991	1992	1993	1994	1995	1996	1997 2/
Total Receipts	99,125	105,921	129,193	161,065	161,164	190,546	194,023	177,964
Services	83,828	89,267	112,357	139,464	143,168	170,071	175,107	155,359
Travel	19,612	23,168	28,718	35,667	39,654	46,803	46,250	41,071
Transportation 1/	12,344	14,043	14,138	18,650	20,672	24,316	23,356	19,428
Investment income	18,152	23,722	32,880	47,043	43,123	52,463	58,485	53,844
Labor income	4,507	3,347	2,745	3,184	3,069	3,151	3,375	2,515
Other	29,213	24,987	33,876	34,920	36,650	43,338	43,641	38,501
Transfers	15,297	16,654	16,836	21,601	17,996	20,475	18,916	22,605
Private	4,761	3,866	3,692	5,114	5,448	6,437	6,112	4,560
Government	10,536	12,788	13,144	16,487	12,548	14,038	12,804	18,045
Total Expenditures	119,904	135,115	169,129	196,987	195,530	219,748	224,459	192,214
Services	101,817	111,091	144,342	166,813	168,268	194,593	195,107	167,585
Travel	12,136	15,118	23,647	24,547	21,969	23,686	23,898	22,284
Transportation 1/	17,071	18,523	21,192	25,416	30,040	38,167	36,472	31,322
Investment income	35,818	45,873	59,875	73,901	69,938	78,791	82,410	70,188
Labor income	4,371	3,077	2,823	3,386	3,109	2,356	2,584	2,172
Other	32,421	28,500	36,805	39,563	43,212	51,593	49,743	41,619
Transfers	18,087	24,024	24,787	30,174	27,262	25,155	29,352	24,629
Private	3,360	4,210	4,228	4,376	5,472	5,246	5,637	5,409
Government	14,727	19,814	20,559	25,798	21,790	19,909	23,715	19,220
Total Balance	-20,779	-29,194	-39,936	-35,922	-34,366	-29,202	-30,436	-14,250
Services	-17,989	-21,824	-31,985	-27,349	-25,100	-24,522	-20,000	-12,226
Travel	7,476	8,050	5,071	11,120	17,685	23,117	22,352	18,787
Transportation 1/	-4,727	-4,480	-7,054	-6,766	-9,368	-13,851	-13,116	-11,894
Investment income	-17,666	-22,151	-26,995	-26,858	-26,815	-26,328	-23,925	-16,344
Labor income	136	270	-78	-202	-40	795	791	343
Other	-3,208	-3,513	-2,929	-4,643	-6,562	-8,255	-6,102	-3,118
Transfers	-2,790	-7,370	-7,951	-8,573	-9,266	-4,680	-10,436	-2,024
Private	1,401	-344	-536	738	-24	1,191	475	-849
Government	-4,191	-7,026	-7,415	-9,311	-9,242	-5,871	-10,911	-1,175

Source: Bank of Italy.

1/ Including insurance.

2/ January–September.

Table 29. Italy: Capital Movements

(In billions of lire)

	1990	1991	1992	1993	1994	1995	1996
Total capital inflows (nonbank)	598,623	898,646	1,173,876	2,006,992	2,440,840	3,433,974	5,808,673
Direct investment	30,654	38,212	25,545	22,722	24,763	28,617	25,635
Portfolio investment	174,420	427,961	693,360	1,543,950	1,692,941	2,263,555	4,433,907
Private long-term loans	136,448	165,672	166,603	129,131	370,104	688,473	904,411
Public sector long-term loans	13,620	2,554	4,914	8,629	632	12,830	1,859
Trade credit	243,481	264,247	283,454	302,560	352,400	440,499	442,861
Total capital outflows (nonbank)	699,401	907,185	1,172,557	1,906,046	2,482,314	3,381,479	5,767,369
Direct investment	32,174	44,223	28,918	28,191	29,395	30,108	30,156
Portfolio investment	306,907	435,650	692,072	1,430,465	1,701,205	2,213,930	4,360,701
Private long-term loans	110,723	158,192	163,774	133,170	392,286	688,423	924,562
Public sector long-term loans	7,929	4,296	4,783	9,059	6,277	7,668	6,709
Trade credit	241,668	264,824	283,010	305,161	353,151	441,350	445,241
Net capital movements (bank and nonbank)							
Bank capital	-100,778	-8,539	1,319	100,946	-41,474	52,495	41,304
Direct investment	-1,520	-6,011	-3,373	-5,469	-4,632	-1,491	-4,521
Portfolio investment	-132,487	-7,689	1,288	113,485	-8,264	49,625	73,206
Private long-term loans	25,725	7,480	2,829	-4,039	-22,182	50	-20,151
Public sector long-term loans	5,691	-1,742	131	-430	-5,645	5,162	-4,850
Trade credit	1,813	-577	444	-2,601	-751	-851	-2,380

Source: Bank of Italy, *Annual Report*, 1996.

Table 30. Italy: External Debt Outstanding

(In billions of U.S. dollars, end of period)

	1990	1991	1992	1993	1994	1995	1996
Nonbank medium and long-term debt	122.5	112.0	100.7	88.5	85.6	89.3	80.9
Public and publicly guaranteed debt	47.2	25.5	21.6	21.5	21.6	26.3	22.2
Nonfinancial private sector	71.1	82.4	76.0	64.4	61.3	59.6	55.6
Trade credits	4.2	4.1	3.1	2.6	2.8	3.4	3.1
Commercial bank debt	202.9	239.8	244.9	215.1	230.6	230.9	247.7
Central bank and UIC	1.4	1.4	6.3	1.5	1.5	2.6	1.2
Total debt	326.8	353.2	351.8	305.2	317.8	322.9	329.9
(In percent of GDP)	28.2	28.5	34.4	33.5	31.6	28.9	27.0
Memorandum items:							
Short-term trade credit	26.3	25.4	20.8	17.8	22.8	26.5	25.3
Total external assets	353.7	398.9	390.6	429.3	491.0	572.4	697.6
Net external assets	-139.1	-157.9	-152.8	-124.8	-120.5	-105.3	-90.9
(In percent of GDP)	-12.0	-12.7	-15.0	-13.7	-12.0	-9.4	-7.4

Source: Bank of Italy, *Annual Report*, 1996.

Table 31. Italy: Foreign Position of the Bank of Italy
and the Commercial Banks 1/

(End of period values)

	1990	1991	1992	1993	1994	1995	1996	1997
(In millions of SDRs) 2/								
Total gross official reserves	61,744	50,271	36,959	37,230	40,146	40,683	49,596	57,472
Gold 3/	17,512	16,240	16,854	17,177	18,044	17,202	17,642	16,162
SDRs	729	650	173	175	86	0	20	50
Reserve position in the Fund	1,205	1,576	1,774	1,575	1,393	1,321	1,290	1,661
Foreign exchange	42,298	31,805	18,157	18,303	20,623	22,161	30,644	39,600
Memorandum items:								
Net foreign reserve position of the Bank of Italy 3/	64,310	57,296	33,276	37,269	39,101	39,001	48,195	54,825
(In millions of U.S. dollars)								
Total gross official reserves 3/	87,840	71,909	50,818	51,138	58,607	60,475	71,317	77,545
Short-term official liabilities, net	-354	-363	-5,316	-578	-485	-1,554	-239	-204
Medium- and long-term position, net	1,859	8,240	1,815	550	380	1,777	3,063	3,784
Net foreign position of the Bank of Italy 3/	91,491	81,958	45,755	51,191	57,082	57,975	69,302	73,973
Net foreign position of commercial banks	-50,127	-70,360	-86,052	-52,025	...	...	...	...
Memorandum items:								
ECU	1,540	1,542	1,787	1,908	1,997	2,083	1,914	1,941
Gold at national valuation	24,913	23,230	23,175	23,593	26,342	25,570	25,369	21,806

Sources: Bank of Italy; IMF, *International Financial Statistics*.

1/ Including the Foreign Exchange Office.

2/ The conversion into SDR values has been done using end-of-period exchange rates, as reported by IFS.

3/ Gold at national valuation.

