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Belgium: Selected Issues

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BELGIUM

Selected Issues

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Approved by European I Department

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A. Introduction

1. **Belgium is a federal state composed of three economic regions (Flanders, Wallonia, and Brussels-Capital) and three linguistic communities (the Flemish, French, and German-speaking).**[2] It has three levels of government: the federal government, the regions and communities, and the provinces and communes.[3] Currently, the federal government is responsible for nationwide functions, including the judiciary, defense, and foreign policies. It also manages the social security system, which is uniform across the country, and most parts of public health. Regions are responsible for regional economic development, environment protection, and other matters of regional interest, while communities are mainly responsible for education and culture. The provinces and communes are in charge of local matters, including local police.

2. **Belgium has proceeded with fiscal devolution since the early 1980s**, as have a number of other European countries (see Table). The Act on Regionalization in August 1980 introduced deep reforms to the centralized regime that had been in place since the Belgian State was first established in 1830. However, it was not until 1988-89 when devolution of power from the central to regional and community governments took place on a large scale, with the introduction of the Special Finance Act in 1989. The scale of transfers through federal grants declined and the share of primary spending devolved to local governments rose from about 15 percent in 1980 to 40 percent in 2001 (Figure I.1).

Share of Central Government in General Government

	1980	1990	2000
	Revenue share		
Belgium	68	41	37
France	48	43	40
Germany	32	31	23
Italy	78	73	56
Euro Area	48 1/	48	42
	Expenditure share		
Belgium	69	48	38
Belgium 2/	68	35	30
France	49	46	43
Germany	37	34	21
Italy	85	76	57
Euro Area	55 1/	53	43

Sources: WEO; and Belgian National Bank.

1/ Data for 1985.

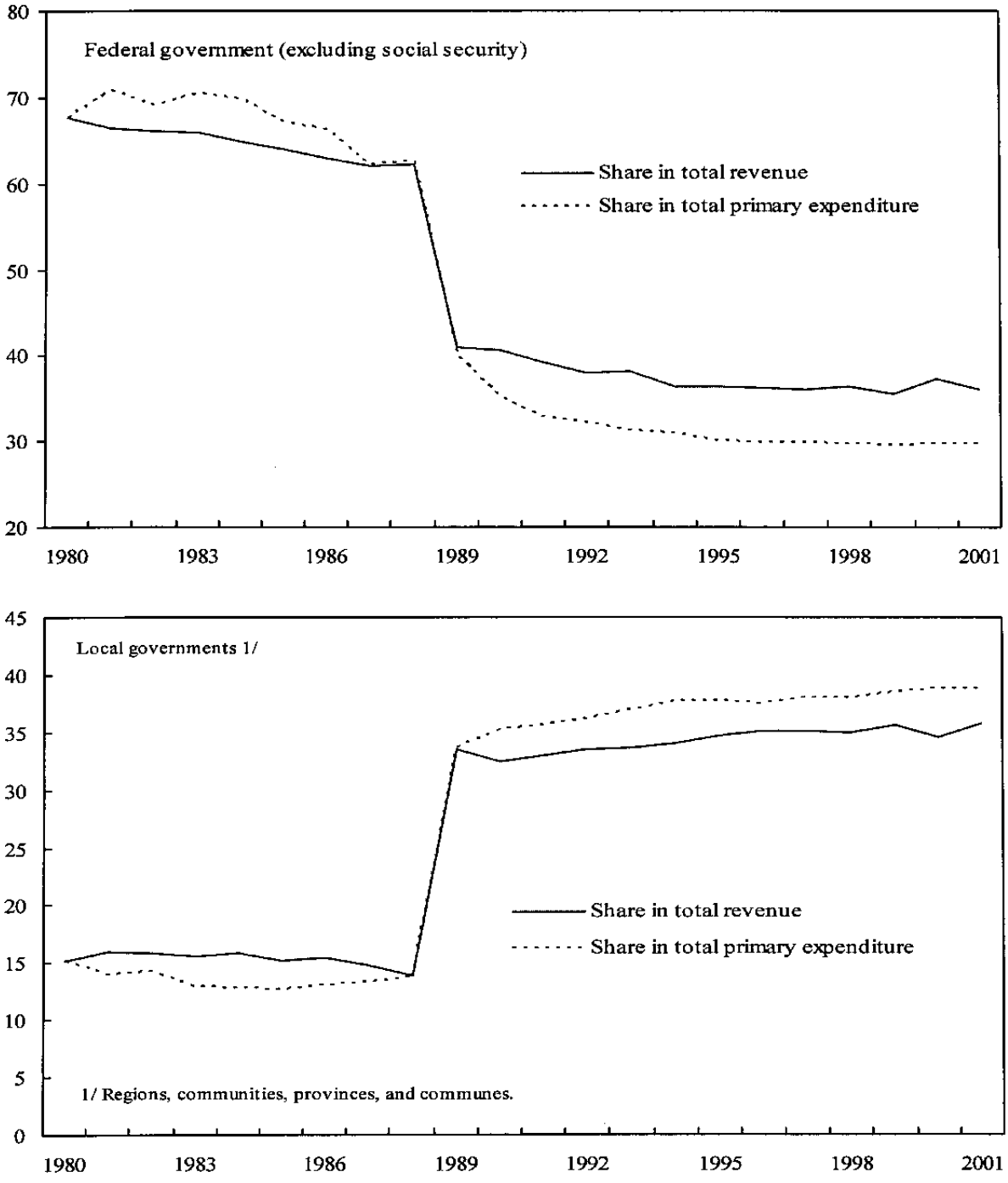
2/ Primary expenditure.

[1] Prepared by Jianping Zhou.

[2] The relationship among these government entities is complicated by the fact that the regions are defined territorially and the communities linguistically. As a result, the Brussels-Capital region has the presence of both the French and the Flemish community. The Flanders and the Flemish community have merged their public institutions into what is now called the Flemish Community.

[3] In this Chapter, the regions, the communities, and the provinces and communes will often be collectively referred to as "local governments."

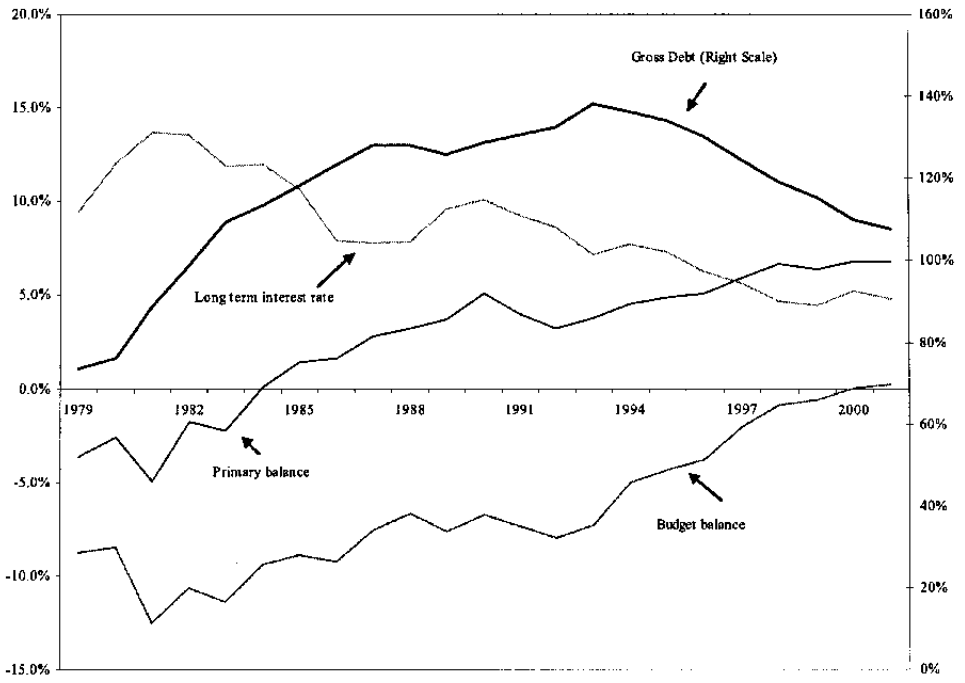
Figure I.1. Belgium: Fiscal Decentralization
(In percent)



Sources: Belgian National Bank; and Fund staff estimates.

3. **Belgian fiscal decentralization since 1980 has been associated with sustained improvements in fiscal outcomes** (Figure I.2). The large budget deficits that had characterized the 1980s were eliminated during the 1990s, and a small surplus was registered in 2000, well ahead of the time envisaged by the Belgian national Stability Program. Public debt, after reaching its peak of 138 percent of GDP in 1993, has since declined.

Figure I.2. Belgium: Fiscal Performance During 1979–2002



B. Fiscal Devolution in Belgium Since 1980

4. **The main motivation for fiscal devolution is well studied in the literature of fiscal federalism.**[4] Devolution aims to ensure that levels of public good provision are responsive to the preferences of local residents (according to the public good choice model), or to exploit certain advantages of smaller-scale units in the administrative implementation of polices (according to the agency model). In either case, fiscal decentralization is expected to improve the quality and cost-effectiveness of public services.

[4] See Fossati and Panella, 1999; Oates, 1998; Pola, 1999; Poterba and van Hagen, 1999; and Ter Minassian, 1999.

The institutional framework

5. **Broad institutional changes since 1970, which led to the creation of the three regions, preceded the fiscal decentralization in Belgium.** Until 1970, Belgium had been a constitutional monarchy and a unitary state, comprising the central government, provinces, and communes. The provincial and municipal authorities were considered subordinate tiers of government, but had limited autonomy (Allen and Ergec, 2002).

6. **The current federal system is a product of four major state reforms during 1970–93.** The first in 1970 recognized three "cultural communities"—Flemish, French and German—each endowed with a council vested with the powers to enact decrees with legislative force for the territories under their authority, and in matters mainly relating to cultural affairs. Subsequent revisions to the Constitution during the second, third and fourth state reforms of 1980, 1988, and 1993 led to the establishment of the Walloon, the Flemish, and the Brussels-Capital regions. Today, Belgian regions and communities enjoy full executive powers, are governed by their own parliaments and executives, and are not subordinate to the federal government.

Major reforms since 1980

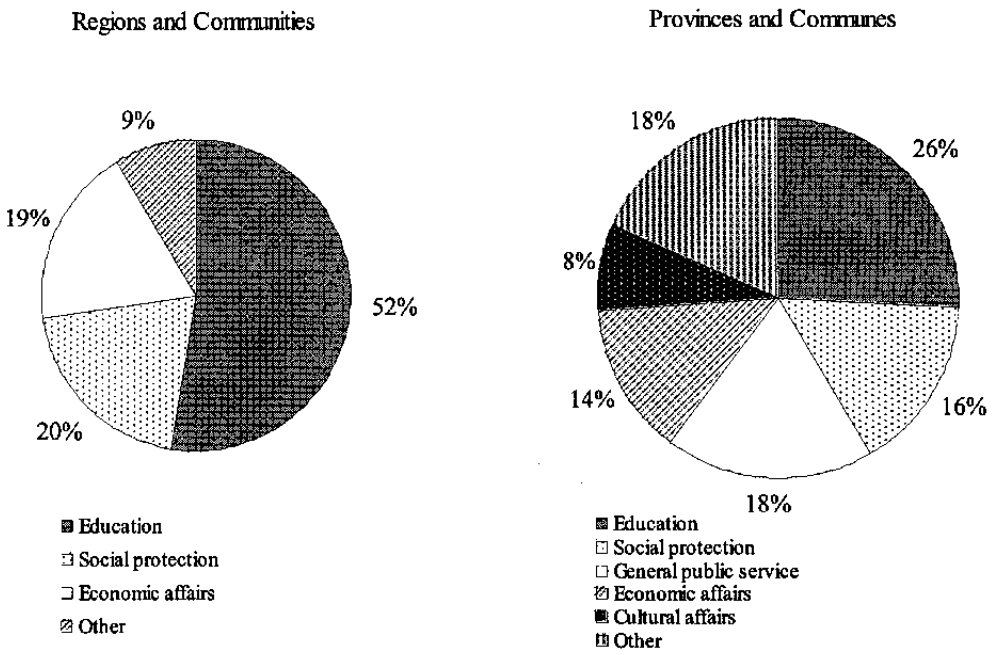
7. **The introduction of the Act on Regionalization in 1980 during the second state reform set the stage for large-scale fiscal devolution.** The desire for fiscal decentralization was primarily driven by increasingly pressing demands for greater financial autonomy for the regions and communities, particularly from the Flemish who felt disadvantaged by the fixed-scale need-based allocation of financial resources (Allen and Ergec, 2002).

8. **However, the fiscal autonomy from the 1980 reform was limited.** Although the Act did provide the regions and communities with the power to levy taxes, this was limited in practice. For the Flemish and the French Communities, it remained entirely theoretical, since the law did not define the geographical area over which their taxation power could be exercised. For the regions, legal restrictions meant that they would have been able to raise only very small environmental taxes. Measured by the distribution of revenue and primary spending, the devolution process between 1980 and 1988 was indeed limited: the local governments' share in total primary expenditure and in total government revenue was little changed at about 15 percent throughout this period (Figure I.1).

9. **During 1988–1989 large-scale fiscal devolution took place.** With the third state reform and the introduction of the Special Act of August 1988, the regions and communities were entrusted with the role of formulating and implementing regional policy objectives and strategies. In particular, the communities became responsible for education, and the regions for regional economic development and infrastructure (see Chapter III for a detailed discussion). Subsequently, a special financing act was introduced in January 1989 laying out budgetary principles and financing mechanisms for the local governments. Reforms during this period led to a significant decline in the revenue and expenditure share of the federal government (Figure I.1).

10. **On the expenditure side, about 25 percent of primary spending was devolved to the regions and communities.** The regions and communities were given complete autonomy over these financial resources. The Special Financing Act of 1989 granted regional authorities immediate responsibilities for spending mainly related to education, regional economic development, and infrastructure (Figure I.3). Operationally, the devolution of spending responsibilities was facilitated by transferring (in many cases simply reclassifying) associated administrative personnel and functions from the federal to the regional levels within a short time period.

Figure I.3. Belgium: Expenditure Composition of Local Governments, 1990 1/



Sources: Belgian High Council of Finance; and Fund staff estimates.
1/ Note that the composition has not changed much since 1990.

11. **On the revenue side, the key element of devolution was a new tax-sharing system.** Under this system, taxes are collected by the federal government, then some are transferred to local governments in accordance with an explicit set of "repartition keys" (see Box 1). This contributive-capacity-based tax-sharing system gradually replaced the old need-based grant system. Consequently, the scale of transfers through federal grants to local governments declined, but transfers to them through the tax-sharing system increased. By 1989 the share of tax revenue transferred to local governments in Belgium had risen to about 30 percent, a level comparable to those in the other EU federal states (Table I.1).[5] Furthermore, the federal government alone can not alter the transfer system or the repartition keys.

Table I.1. Attribution of Tax Revenues to Lower Levels of General Government
(In percent of total tax revenue of general government)

	Federal/Central Government			State/Lander Government			Local Government			Social Security Funds		
	1975	1985	1999	1975	1985	1999	1975	1985	1999	1975	1985	1999
Federal countries												
Austria	52	49	53	11	13	9	12	11	10	25	27	28
Belgium	66	64	36	0	0	24	5	5	5	29	32	35
Germany	34	32	30	23	22	22	9	9	8	34	37	40
Unitary countries												
Denmark	69	69	64				30	29	32	1	2	4
Finland	57	56	53				24	22	22	20	22	25
France	52	48	44				8	9	10	41	44	46
Greece	67	63	69				3	1	1	30	36	30
Ireland	79	84	87				8	2	2	14	14	11
Italy	53	63	62				1	2	9	46	35	29
Netherlands	60	53	57				1	2	3	39	45	41
Norway	51	60	59				22	18	18	27	23	23
Spain	48	48	48				4	11	17	48	41	35
Sweden	51	54	61				29	30	31	20	16	9
United Kingdom	71	71	79				11	11	4	18	18	17

Source: OECD.

[5] When the central government collects taxes and transfers them in whole or in part to local governments, it is necessary to determine whether the revenues should be considered to be those of the central government (and the related transfer as grants) or those of the local governments (the central government acts only as their agent). According to the OECD definition, tax revenues are attributed to regional and local governments if (i) the regional and local government have exercised some influence or discretion over the setting of the tax or the distribution of its proceeds; (ii) under the provisions of the legislation they automatically and unconditionally receive a given percentage of the tax collected or arising in their territory; or (iii) they receive tax revenue under legislation leaving no discretion to the central government. (OECD, 2001; and OECD, 1999)

Box I.1. Tax-Sharing System in Belgium

Taxes are collected by the federal government, then some are transferred to local governments according to "repartition keys."

The regions receive a part of the personal income tax (IPP), based on an overall amount agreed in 1989 and increased each year in line with nominal GDP. This is distributed among the three regions in proportion to the amount of tax collected in each region. The communities also receive a small part of IPP, based on "perceived" tax shares (*juste retour*). The communities receive so-called VAT transfers, which are based on an overall amount agreed in 1989 and increased in line with inflation and changes in number of school-aged children (thus, they do not depend on actual VAT collected). The VAT transfers are shared between the French and the Flemish Community in proportion to the number of students in each community in 1989 (42.45 percent for the French Community and 57.55 percent for the Flemish Community; the main financing source for the German Community remains to be federal grants). In addition, following the Lambermont Agreement, which came into force in 2002, regions receive a share of wealth inheritance taxes, radio-television taxes, and registration fees, car taxes and others.

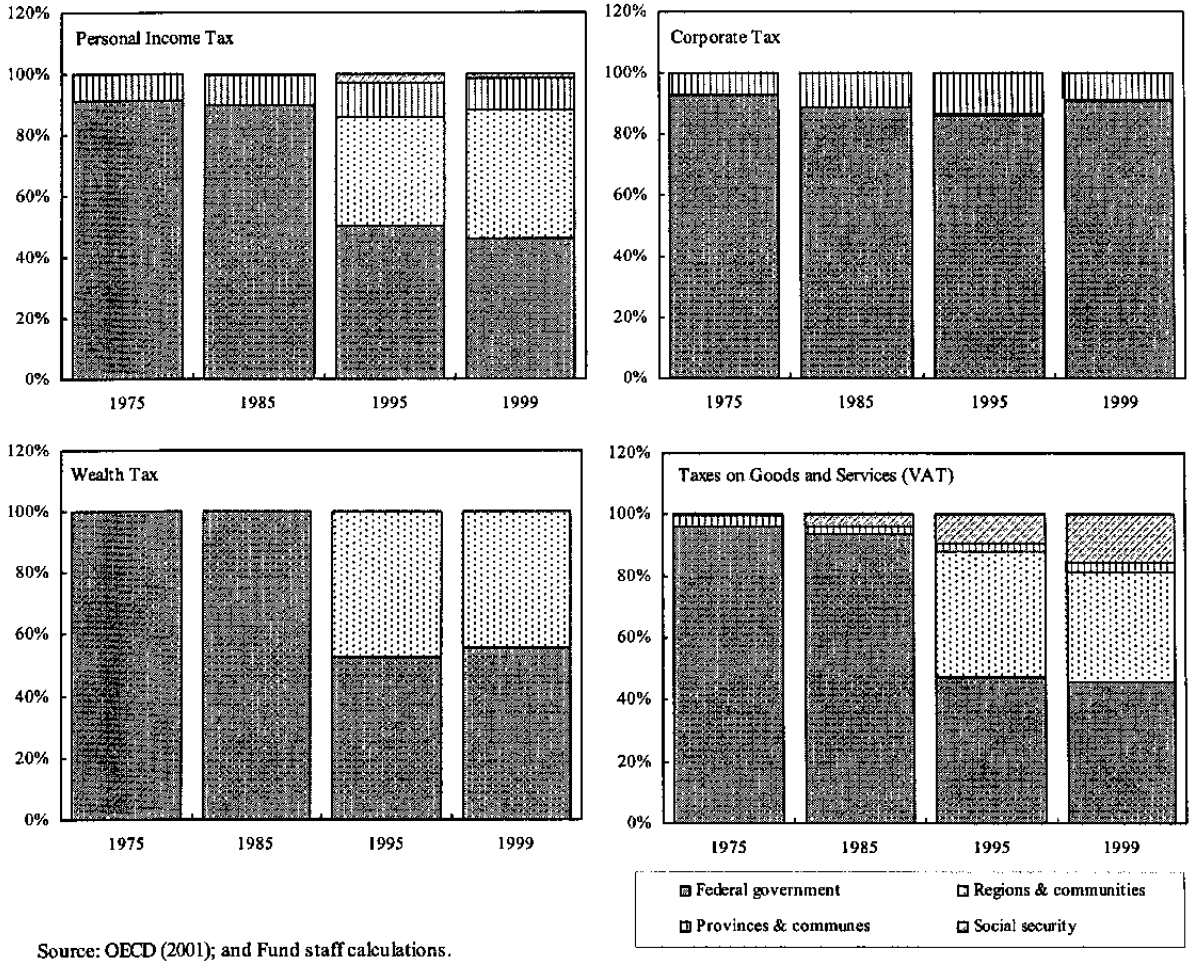
Under this tax-sharing system, about 40 percent of IPP and VAT have been transferred to regions and communities, while another 10 percent of IPP and the corporate profit and income taxes have been transferred to the provinces and communes (Figure I.4).

Any change of the repartition keys requires legislative approval and agreement by all levels of government. The repartition keys for VAT transfers were modified in 1999 by the Saint-Éloi Agreement. The modification was in favor of the French community, and led to a loss of VAT transfers to the Flemish community, who agreed only after being compensated with larger federal grants for foreign students and so-called drawing rights for employment programs organized by regions.

Inter-region equalization: a national solidarity measure was introduced in 1990 to increase the share of revenues transferred to the region with the lowest per capita tax payment. This led to a transfer in favor of the Walloon region and another in favor of the Brussels-Capital region in 1997 (Gerard, 2001).

Social security contributions are collected at the federal level and the federal government is responsible for paying the benefits, including pensions, unemployment benefits, early retirement benefits, and health care. To the extent that social security contributions and benefits are unequally distributed across regions—reflecting disparities in regional economic activity or demographics—the social security fund transfers income across regions.

Figure I.4. Belgium: Tax-Sharing Among Federal Government, and Other Levels of Government



Source: OECD (2001); and Fund staff calculations.

12. Despite the substantial increase in local governments' influence over the distribution of tax revenues, **the devolution of taxing power resulted from the reforms in 1988–89 was limited.** The federal government alone remained responsible for the majority of decisions concerning the parameters of tax law.[6] The taxing powers of the regions and communities were confined to small margins or rebates on a selection of tax rates, mainly registration fees and, to lesser extent, personal income tax (Table I.2). For the provinces and communes, about half of their revenues remained in the form of federal grants, over which they had no decision-making power. They were allowed to levy surcharges on income taxes and a withholding tax on real estate, but the amount concerned was fairly small (Table I.3).

[6] Belgium National Bank, Annual Report 2000.

Table I.2. Devolution of Taxing Power Under the Special Financing Act of 1989

	Tax base	Rate	Exemptions	Revenue sharing
Real estate tax	Federal[1]	Regional[1]	Regional	100% regional
Registration fees for real estate	Federal[1]	Federal[1]	Federal[1]	59% federal 41% regional[2]
Estate and inheritance tax	Federal[1]	Regional[1]	Regional	100% regional
Gambling tax	Regional	Regional	Regional	100% regional
Amusement tax	Regional	Regional	Regional	100% regional
Opening tax (bars)	Regional	Regional	Regional	100% regional

Source: Van der Stichele and Verdonck, 2001.
[1]Have been devolved to the regions under the Lambermont agreement in 2001.
[2]100% regional since 2002.

13. **The Special Financing Act of 1989 also set forth the devolution of public finances for the transitional period of 1989-1999**, particularly the shift from the spending-need-based grant regime to the contributive-capacity-based tax-sharing regime. The share of federal government tax revenues transferred to the regions and communities rose marginally between 1989 and 1999, either as a percent of GDP or as a share of the federal government's total tax revenues (Table I.3). Grants from the federal government to regions and communities, declined initially in 1990—in absolute amount as well as in percentage of GDP—but then rose slightly as a percentage of GDP. The importance of own taxes and own revenues in local finances increased. By 1999, although transferred tax revenues from the federal government still constituted an important part of financing for the regions and communities, about 20 percent of the revenues of the regions and communities were from their own tax and nontax revenues, compared to14 percent in 1989.

14. Nonetheless, **the apparent lack of alignment between devolution of spending responsibilities and that of fiscal instruments with the proper levels of government at times led to budgetary problems for local governments, notably the communities.** In particular, the financing mechanism stipulated in the Special Financing Act of 1989 led to structural under-financing of the French and Flemish communities. For instance, between 1991 and 1998, the growth of revenues for the French community was lower than GDP growth (Van der Stichele and Verdonck, 2001). The Flemish community faced a similar problem, but was able to benefit from the pooling of community and regional resources after

Table I.3. Belgium: Revenue Sources of Regions and Communities, and Provinces and Communes

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002e
Revenue Source of Regions and Communities (in percent)															
Tax transfer	..	71.5	74.8	75.3	74.5	72.7	74.0	73.1	72.0	72.3	71.5	71.5	70.8	71.6	63.3
Own tax revenue	..	5.1	6.7	6.5	6.6	8.1	7.8	7.8	8.4	8.4	8.7	8.7	9.0	8.6	15.3
Own non-tax revenue	..	8.9	9.4	10.1	10.4	10.8	10.4	10.7	11.0	10.7	11.2	11.4	11.3	11.1	12.2
Grant	..	14.5	9.1	8.1	8.5	8.3	7.8	8.4	8.6	8.5	8.7	8.4	8.9	8.8	9.2
Revenue Source of Provinces and Communes (in percent)															
Tax transfer	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.3	0.5	0.5	0.6	0.6	0.6	0.5	0.4
Own tax revenue	30.0	27.9	29.7	30.6	30.8	29.8	31.3	31.6	32.3	33.4	32.4	32.5	29.5	32.5	33.5
Own non-tax revenue	20.2	20.1	20.8	20.2	20.6	21.1	20.0	21.0	21.6	21.5	21.8	21.4	21.7	19.9	19.9
Grant	49.8	51.9	49.5	49.2	48.6	49.2	48.1	47.1	45.5	44.7	45.2	45.4	48.2	47.0	46.2
Regions and Communities (as a share of general government)															
Revenue	..	25.1	24.4	24.7	25.3	25.6	25.6	26.1	26.4	26.6	26.9	27.3	26.5	27.9	27.3
Primary expenditure	..	26.4	28.1	28.7	29.0	29.0	29.5	30.0	29.5	29.8	29.9	30.0	29.7	30.1	30.2
of which, transfers to local governments	..	*6.0*	*6.5*	*6.1*	*6.1*	*6.0*	*5.9*	*5.9*	*5.5*	*5.2*	*5.1*	*5.2*	*5.0*	*5.0*	*5.0*
Provinces and Communes (as a share of general government)															
Revenue	13.9	14.1	13.8	14.0	14.0	13.7	14.1	14.3	14.1	13.6	13.2	13.3	12.9	12.9	13.8
Primary expenditure	13.7	13.5	13.5	13.2	13.4	14.1	14.4	14.0	14.0	14.0	14.0	14.5	14.9	14.5	14.6
Regions and Communities															
Grants received															
In billions of euro		2.6	1.7	1.6	1.8	1.9	1.9	2.2	2.3	2.4	2.6	2.7	2.9	3.1	3.3
In percent of GDP		1.7	1.0	0.9	1.0	1.0	1.0	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.2
Tax transfers received															
In billions of euro		12.6	13.9	15.0	15.7	16.7	17.9	18.7	19.3	20.7	21.7	22.9	23.0	25.3	22.5
In percent of GDP		8.2	8.5	8.7	8.8	9.0	9.2	9.3	9.3	9.5	9.6	9.7	9.3	9.9	8.6
In percent of tax revenues of federal gov't		32.4	33.3	34.9	35.8	35.0	35.2	35.2	35.0	35.4	35.0	35.6	33.6	36.5	33.0

Sources: Belgium National Bank; and Fund staff estimates.

merging with the Flemish region. Consequently, the financing mechanism for the communities has been modified three times in the past ten years (often under lengthy negotiations among various levels of government), in order to increase revenues for the communities.[7]

15. **The Lambermont Agreement (a 2001 Amendment to the Special Financing Act of 1989) sets out new steps for further fiscal decentralization.** According to official estimates, the proportion of revenues over which the regions and communities have total autonomy would increase to 21 percent, and the proportion of taxes for which they may set rates or exemptions would rise to 26 percent.

16. **One main objective of the Agreement is to stabilize tax transfers to the regions and communities relative to GDP over the next twenty years.** Absent such an agreement, transfers to the communities and regions would have risen by 1.5 percent a year in real terms, implying a decline as a share of GDP. More specifically, the VAT transfers to the communities will be increased, in principal to cover education expenditures, and will be eventually linked to economic growth. Moreover, the Agreement also seeks to modify the revenue-sharing mechanism in order to minimize volatilities in the revenue transferred to the regions and communities. These volatilities were a result of the design of the revenue-sharing formula. In any given year transfers are calculated on the basis of inflation and growth in the preceding year, and adjustment takes place the following year. This time lag has led to a saw-tooth pattern in communities' and regions' revenue streams, which was particularly pronounced in the past two years, with nominal increases of 0.7 percent in 2000 and 9.8 percent in 2001.The new formula will link revenue transfers to the growth of the current year.

17. **The Lambermont Agreement also entails further devolution of taxing powers to the regions.** A number of taxes—including all registration fees, the motor vehicle duty, the road fund tax, and the "euro vignette" tax—have been transferred to the regions since 2002. Furthermore, the agreement will increase the IPP margin from the current 3.25 to 6.75 percentage points from the beginning of 2004. This means that the regions will be able to grant piggyback taxes or tax refunds up to 6.75 percent of their IPP revenues, as long as the progressivity of the personal income tax is not reduced.

18. **Recognizing the budgetary impact of these changes, the Sainte-Térèse Agreement sets out principles for a twofold budgetary neutrality.** Most importantly, vertical budgetary neutrality would require that losses in federal government revenue due to the devolution of taxes be offset by a reduction in IPP transfers to the regions. On the other hand, horizontal budgetary neutrality would ensure that no region is financially disadvantaged. According to official estimates, for the regions and communities, the share of

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[7] In 1993 (the Saint-Michel agreement); in 1999 (the Saint-Éloi agreement), and in 2001 (the Lambermont agreement). See Van der Stichele and Verdonck (2001) for a detailed discussion on these agreements.

own taxes in their total revenue would increase from 8.6 percent in 2001 to 15.3 percent in 2002, but the share of tax transfers would decrease from 71.6 percent to 63.3 percent, largely due to the reduction in IPP transfers (Table I.3). Hence, in 2001 the losses in federal government revenue are fully offset by the decline in IPP transfers to the regions and communities. However, the feasibility of maintaining the vertical neutrality in subsequent years has been questioned because of technically difficulties, for which several solutions have been proposed (Van der Stichele and Verdonck, 2001).

C. Macroeconomic Management and Fiscal Consolidation

19. **It is clear that decentralization, if not managed properly, could jeopardize macroeconomic stability.** Lack of fiscal discipline at the local level has in some countries been associated with large national deficits and debt, as demonstrated in the recent experience of some Latin America countries, notably Argentina and Brazil (Alesina, et al., 2002). On the other hand, decentralization is has also been associated with better fiscal outcomes in countries with strong governance (Drummond and Mansoor, 2002).

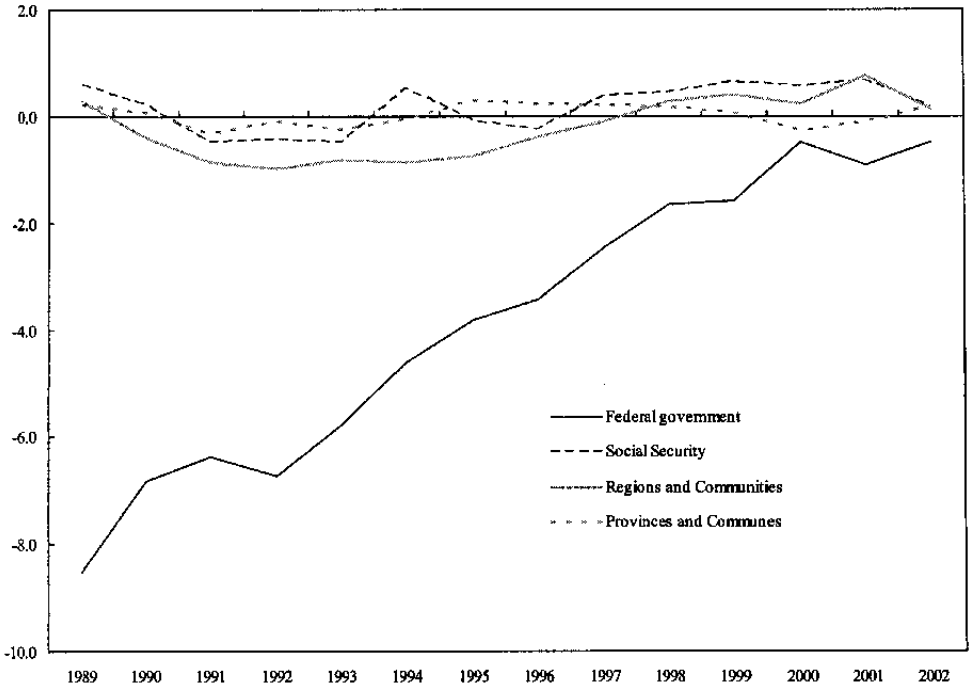
20. **The large fiscal devolution after 1988 took place just as Belgium was facing challenges of fiscal consolidation required by the Maastricht Treaty.** Devolution in 1988/89 left the regions with immediate unrestricted fiscal authority over a large fraction of their expenditure (about 40 percent of the public expenditure at that time were managed by the regions and communities), but the revenue base was devolved only gradually. This led to the concern that general government deficits could get out of control. In the event, Belgian fiscal decentralization since 1980 has been associated with sustained substantial improvements in the federal government's budget balance, and sound fiscal situation at the level of local governments (Figure I.5). This section reviews key policy instruments the government used in managing the decentralization process in Belgium.

The role of the High Finance Council and the Internal Stability Pact

21. **The High Finance Council (HFC) was assigned a crucial role in ensuring that fiscal decentralization would not jeopardize macroeconomic stability.**[8] The HFC was completely restructured in 1989, and three permanent sections within the HFC were created: the first, "Besoins de Financement des Pouvoirs Publics (Borrowing Requirement Commission or BRC)," to monitor the fiscal policies of all public authorities; another to deal with matters related to tax laws; and a third to cover issues related to financial institutions and markets. Council members for the BRC included representatives from the Ministry of Finance, the National Bank of Belgium, the Federal Planning Bureau, and the regional governments.

[8] The HFC was established in 1936 as an advisory body within the Ministry of Finance.

Figure 1.5. Belgium: Budget Balance at Levels of Government
(In percent of GDP)



Sources: Belgian National Bank; and IMF, WEO.

22. **One key function of the HFC (more precisely the BRC) was to coordinate fiscal policies between the federal and the regional governments.** Close coordination was facilitated by the cooperation agreements concluded regularly between the federal and the regional governments, seeking to ensure that regional fiscal policies were consistent with Belgian national Stability Program. The HFC, among things, was responsible for monitoring the implementation of the cooperation agreements. In so doing, it has published annual advisory reports, with an evaluation of the financial needs of each government entity and fiscal policy recommendations (in terms of deficit targets). The scope of these reports was initially limited to financial matters related to the federal state, the regions, and the communities, but was soon expanded to include the social security funds, and provinces and communes

23. **Cooperation agreements were produced in the framework of fiscal adjustment required by the national Stability Program, and set permissible fiscal targets for the federal and the other levels of government.** The first agreement was in 1994, and subsequent intergovernmental agreements were reached in 1996 for 1996–99, in 1999 for 1999–02, and most recently in 2000 for 2001–05. In particular, under the first agreement the federal state and the regions were obliged to incorporate the adjustment effort required by the Convergence Plan of 1992, the first national stability program adopted in June 1992 after Belgium signed the Maastricht-Treaty early that year. The second agreement reflected the framework of the Convergence Plan of 1996.

24. **In 1999, when Belgium joined the third stage of the EMU, the cooperation agreement was produced in the form of a five-year "internal stability pact," which, to a large degree, internalized the national Stability Program.**[9] To ensure that the budgetary policy of the communities and regions fits in with the national Stability Program, the communities and regions draw up an evolving internal multi-annual stability program each year. These programs specify how the communities and regions are to attain the targets for each of the budget years concerned. The High Council of Finance carries out an annual evaluation of the execution of these internal stability programs.

25. **The policy targets specified in the cooperation agreements have evolved over the years.** Under the agreement of 1994, policy objectives were expressed in the form of a maximum ceiling on the so-called "natural deficit" for the regions. However, in the 1996 agreement, the reduction of the total debt ratio by 10 percent between 1996 and 1997 was an explicit objective, but, in contrast to the 1994 agreement, no explicit fiscal target was set for the federal government. The internal stability pacts since 1999 set explicit budget deficit targets for the federal and local governments. For example, the agreement reached at end-2000 specified the budget target for Entity II (the regions, communities, provinces, and communes) to be a surplus of 0.6 percent of GDP in 2001, and a surplus of 0.2 percent of GDP by 2005. Thus far, these agreed policy objectives have largely been met (Figure I.6).[10]

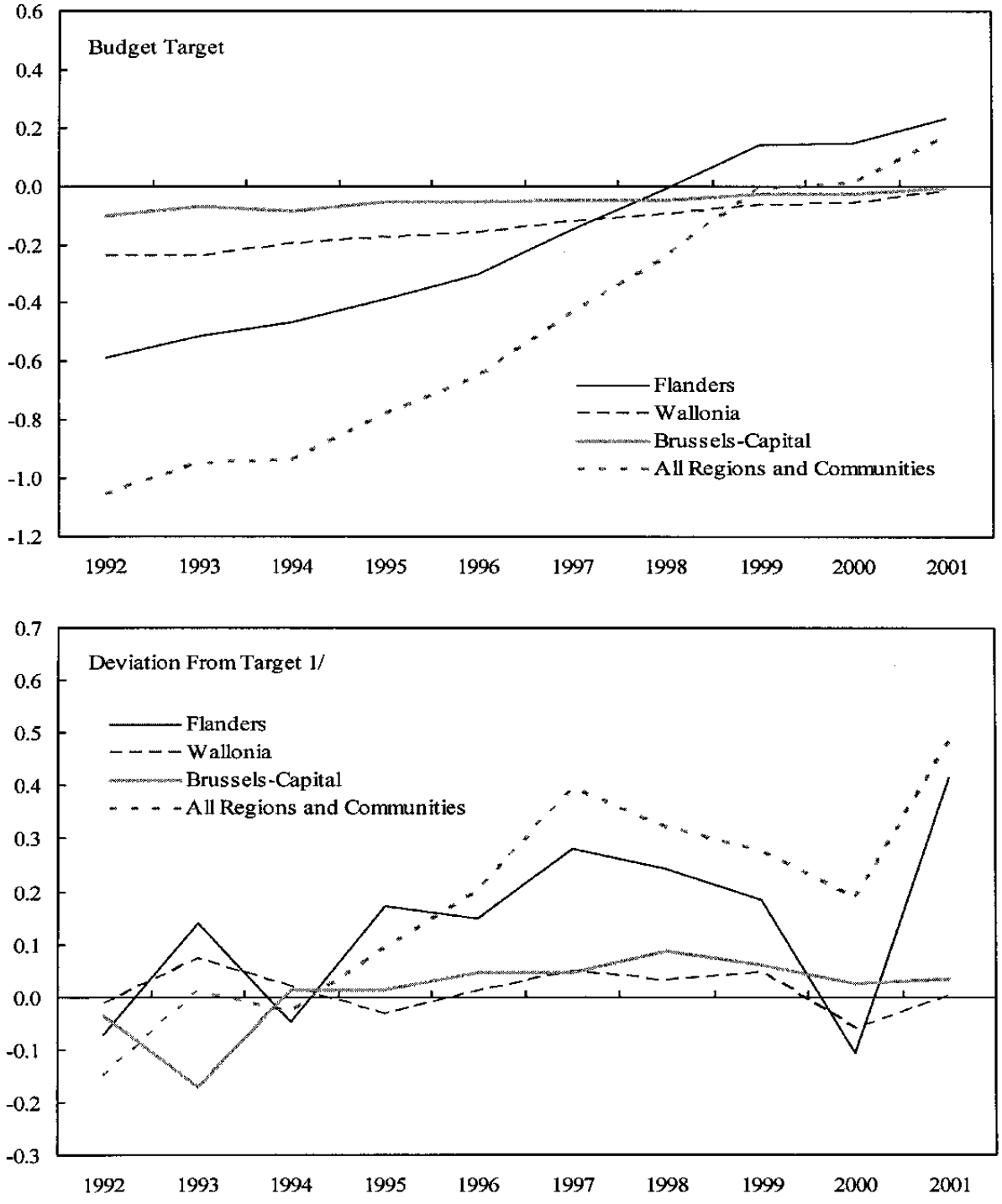
Revenue sharing arrangements

26. **A range of considerations need to be taken into account in the devolution of taxing powers to regional and local governments, to avoid undermining macroeconomic control at the level of central government.** The general guidance provided in the literature suggests that local governments should focus on taxes that are less sensitive to income fluctuations, so as to shelter themselves from cyclical effects and to provide the central government with stabilization instruments. Other considerations include the mobility of tax bases (to limit distortionary tax-induced migration of capital and/or labor), and the distribution of tax bases across regions (to avoid increased regional disparities) (Oates,1998). Moreover, governments that rely on their own sources of revenue are likely to be fully aware of the costs of their programs, whereas reliance on discretionary grants from the central government undermines incentives for efficient spending decisions. In practice, tax-sharing arrangements have compared favorably with complex and discretionary systems of transfers between levels of government. Hughes and Smith (1991) found that in France, Italy, Spain,

[9] Belgian Stability Program 1999–2002.

[10] The HFC has no explicit sanction instruments if governments were to miss their policy targets.

Figure I.6. Belgium: Budget Target and Outcome For Regions and Communities
(In percent of GDP)



Sources: Belgian Ministry of Finance; and IMF, WEO.
1/ Positive number indicates that actual outcome is better than target.

the increase of tax transfer and the decrease of grants over a period of 25 years resulted in downward pressure on the overall level of local government expenditure.

27. **The shift from the need-based federal grant system toward the contributive-capacity-based revenue-sharing regime appears to have improved the incentives for efficient spending decisions at the lower levels of government.** Although the federal government made the major decisions on tax rates and bases, the fiscal power of the regions and communities increased as they were able to impose small margins or grant rebates on a selection of tax rates. Preliminary empirical analysis also indicate that for the provinces and communes, their marginal spending is positively correlated with the changes in their own tax revenues after 1989 and such correlation is absent for period before 1989.

Restricted financing at regional levels

28. The criteria governing access of lower levels of government to borrowing are a key determinant of effective control over public spending. Experiences from advanced OECD countries indicate that borrowing constrains—either rules-based control or market-based discipline—help to safeguard overall public sector deficit targets (Drummond and Mansoor, 2002).

29. In theory, the Special Financing Act of 1989 grants the regions complete autonomy on their financing policy and related debt management. Regions and communities are therefore allowed to finance their deficits by borrowing in domestic or foreign capital markets and in domestic or foreign currencies. **In practice, however, the borrowing is restricted** (see Table below). Regional authorities are subject to formal qualitative and quantitative restrictions on their borrowing. The federal government can impose restriction on the borrowing capacity of a region for a period of up to two years, following the advice of the HFC and after the region has been consulted. Foreign borrowing by the regions is subject to the approval of the federal Minister of Finance, as are the conditions and timing of debt issuance on domestic capital markets (von Hagen et al., 2001).

Qualitative Restrictions on Debt Financing by the Lower Levels of Government	
Type of Debt	**Restrictions**
Public debt	Conditions and timing subject to prior approval by federal Minister of Finance
Privately placed debt	Notification to federal Minister of Finance
Quantitative Restrictions on Debt Financing by the Lower Levels of Government	
The federal government can restrict the borrowing capacity of a region for a period of up to two years, if such borrowing is considered by the HCF as a threat to maintaining three macroeconomic goals: the preservation of Belgian economic and monetary union, the maintenance of external and internal equilibrium and the prevention of structural deterioration of the country's public finances.	

D. Concluding Remarks

30. The fiscal devolution in Belgium since 1980 has been accompanied by sustained improvement in fiscal outcomes. As the lower levels of government (regions, communities, and local municipalities) now account for 40 percent of government primary spending, they will clearly play a key role in efforts to contain spending growth. With the introduction of the Lambermont agreement in 2001, greater decentralization is inevitable. In this regard, it is important to emphasize the critical role of the internal stability pact in maintaining macroeconomic stability in Belgium during fiscal devolution. Of equal importance is the HFC's monitoring of the implementation of the internal stability pact and coordination of fiscal policies between the federal and regional governments.

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II. Fiscal Strategies for Population Aging[11]

A. Introduction

31. **Like many industrialized nations, Belgium faces the problem of population aging in the coming decades.** Its old-age dependency ratio is expected to rise from the current level of 40 percent to more than 60 percent in the next thirty years.[12] According to a study by the OECD, pension expenditures in Belgium could rise by 3.3 percent of GDP during this period, slightly higher than the EU average (Table II.1). Cost of health care could add another 3 percent of GDP to the fiscal cost of aging in Belgium (Englert, 2002). While the risk of unsustainable pension financing may seem low at this stage—thanks to the large primary surpluses built up over the past ten years—Belgium faces an important fiscal challenge given its high level of public debt, which, at 104 percent of GDP in 2002, is one of the highest in the EU.

Table II.1. Projections of Pension Expenditure in the EU Countries

(In percent of GDP)

	2000	2010	2020	2030	2040	2050	*Changes during* *2020-2030*	*2020-2050*
Belgium	**10.0**	**9.9**	**11.4**	**13.3**	**13.7**	**13.3**	**3.3**	**3.3**
Denmark	10.5	12.5	13.8	14.5	14.0	13.3	4.0	2.8
Germany	11.8	11.2	12.6	15.5	16.6	16.9	3.7	5.1
Greece	12.6	12.6	15.4	19.6	23.8	24.8	7.0	12.2
Spain	9.4	8.9	9.9	12.6	16.0	17.3	3.2	7.9
France	12.1	13.1	15.0	16.0	15.8	..	3.9	..
Ireland	4.6	5.0	6.7	7.6	8.3	9.0	3.0	4.4
Italy	13.8	13.9	14.8	15.7	15.7	14.1	1.9	0.3
Luxembourg	7.4	7.5	8.2	9.2	9.5	9.3	1.8	1.9
Netherlands	7.9	9.1	11.1	13.1	14.1	13.6	5.2	5.7
Austria	14.5	14.9	16.0	18.1	18.3	17.0	3.6	2.5
Portugal	9.8	11.8	13.1	13.6	13.8	13.2	3.8	3.4
Finland	11.3	11.6	12.9	14.9	16.0	15.9	3.6	4.6
Sweden	9.0	9.6	10.7	11.4	11.4	10.7	2.4	1.7
U.K.	5.5	5.1	4.9	5.2	5.0	4.4	-0.3	-1.1
EU average	**10.4**	**10.4**	**11.5**	**13.0**	**13.6**	**13.3**	**2.6**	**2.9**

Source: OECD (2001).

32. Against this background, **this chapter examines long-term fiscal strategies for meeting the fiscal burden of population aging in Belgium.** The main conclusions are as follows:

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[11] Prepared by Jianping Zhou.

[12] In this Chapter, the old-age dependency ratio is defined as those aged 60 years and over as a percentage of those aged 20-59 years, following the definition adopted by the Belgium's High Council of Finance. Note that studies by the EU or the OECD usually define this ratio as those age 65 and over as a share of those aged 20-64.

- The fiscal cost of population aging is projected to rise by 6.2 percent between now and 2050. This will be only partially offset by possible savings from lower spending on unemployment benefits. The fiscal pressures of population aging and the high debt-GDP ratio argue for a sustained surplus position.

- Compared to an alternative of a balanced budget, a strategy of surpluses and swift debt reduction would guard against unforeseen shocks and the possibility of higher-than-forecast pension outlays. In addition, it would free up resources, stabilize the tax burden over time, and avoid the need to reduce pension generosity.

- Delay in adjustment is costly, in that higher taxes are required to fully fund aging costs through a reduction in interest payments.

- Further reforms of the pension system—specifically with regard to eligibility requirements for early retirement—are a complement to debt reduction, in dealing with fiscal cost of population aging. They would contain the budgetary cost of aging and free resources for alternative uses, notably tax cuts for the business sector to boost employment growth.

33. **The Chapter is structured as follows:** Section B presents estimates of the fiscal costs of population aging in Belgium, and discusses their sensitivity to underlying assumptions. Section C lays out strategies for meeting the fiscal costs of aging. Specifically, a strategy of swift debt reduction is discussed to see what budget surplus would be needed to reduce debt and interest payments rapidly enough to finance these costs. Alternative policy options are also discussed to show the consequences of delayed fiscal adjustment. Finally, reforms of the public pension and health care are discussed as a complement to fiscal consolidation. Section D concludes.

B. Fiscal Costs of Population Aging

Macroeconomic and demographic assumptions[13]

34. Main macroeconomic and demographic assumptions are presented in Table II.2. **Macroeconomic assumptions** include average labor productivity growth (dY_t/dL_t) of 1.75 percent (reflecting gains from assumed structural reforms), and real GDP growth of 1.9 percent on average during 2000–50. Real wages are assumed to grow in line with labor productivity and employment growth (dL_t/dt) is equal to the difference between output growth (dY_t/dt) and labor productivity growth (dY_t/dL_t). Furthermore, the real interest rate (r_t)

[13] These assumptions are consistent with the "alternative" scenario in the paper by the Federal Planning Bureau: *Perspectives financières de la Sécuité sociale 2000-2050,* which was also presented in the 2002 annual report of the government Study Committe on Aging (*Comité d'Etude sur le Vieillissement*).

and the inflation rate (π_t) are exogenously assumed to be fixed at 4 percent and 1.7 percent, respectively.

35. **Demographic assumptions**—namely population growth, evolution of age structure, life expectancy, and total fertility rate—are based on projections by the Belgian Federal Planning Bureau (FPB). Specifically, the total fertility rate, currently 1.6, would gradually rise to 1.75 in 2050; the life expectancy at birth would increase by 9 years for men and 7.5 years for women between now and 2050; and net immigration would be maintained at about the current level. These assumptions imply a slightly rising population over the 2000-2050 period, and a sharp rise of 29 percentage points in old-age dependency ratio (defined as those aged 60 years and over as a share of those aged 20–59 years). The rise in old-age dependency ratio is mainly due to increasing life expectancy for both Belgian men and women over the next 50 years, and is similar in magnitude to the average expected in EU countries.

Table II.2. Key Macroeconomic and Demographic Assumptions

	2000	2010	2020	2030	2050	2000-30	2000-50
Macroeconomic assumptions (in percent)						*Average*	
Real GDP growth	3.9	2.2	1.9	1.6	1.6	*2.1*	*1.9*
Labor productivity growth	1.8	1.8	1.8	1.8	1.8	*1.7*	*1.7*
Employment growth	1.8	0.4	0.1	-0.2	-0.1	*0.3*	*0.1*
Unemployment rate	10.0	7.3	6.1	5.0	5.0	*6.9*	*6.1*
Demographic assumptions						*Changes*	
Population (millions)	10.253	10.520	10.7	10.888	10.954	*0.6*	*0.7*
(a) 0-19 years	2.4	2.4	2.3	2.3	2.2	*-0.1*	*-0.2*
(b) 20-59 years	5.6	5.7	5.5	5.3	5.2	*-0.3*	*-0.4*
(c) 60+ years	2.2	2.5	2.9	3.3	3.6	*1.1*	*1.3*
Old-age dependency ratio (c)/(b) (percent)	40.1	43.7	53.0	62.9	68.7	*22.8*	*28.5*
Key coefficients of the pension system:							
Pensioners (millions)	2.1	2.3	2.7	3.3	3.7	*1.1*	*1.5*
Average pension/GDP per worker	16.2	15.3	14.9	14.4	13.5	*-1.7*	*-2.7*
Implied:							
Pensioners (% of employed)	54.1	53.6	63.6	76.9	87.9	*22.8*	*33.8*
Employment rate (age group 19-64) 1/	59.0	61.5	63.0	64.8	65.6	*5.8*	*6.6*

Sources: Belgian Federal Planning Bureau; and Fund staff projections.
1/ In percent of active population aged 19-64.

36. **One important assumption is that the employment rate will rise during the next 50 years, particularly for women and older people of working age (Table II.2).** This increase would appear to imply significant structural reforms, notably pension reforms to reduce incentives for early retirement (more below).

Projections of pension expenditures

37. **The projection of pension expenditure** follows the approach of European Commission (EC, 1996), in which the ratio of pension expenditure (C_t) to GDP is expressed as the product of the following four ratios:

$$\frac{C_t}{GDP_t} = \left(\frac{POP_t^p}{POP_t^w}\right) * \left(\frac{NP_t}{POP_t^p}\right) * \left(\frac{C_t / NP_t}{GDP_t / L_t}\right) * \left(\frac{POP_t^w}{L_t}\right)$$

where POP^p refers to the population at pensionable age and is measured by population of 60 years and up; POP^w is the population at working age, measured by those with ages of 20-59 years; NP is the number of pensioners and its projections are taken from the official study on aging; and L is employment.

38. Therefore, **the dynamics of pension expenditures can be decomposed into the dynamics of four ratios**. The first (the old-age dependency ratio) represents the pure demographic component of expenditure dynamics, and is derived based on the demographic assumptions.[14] The second (the eligibility ratio) is influenced by both demographic and legislative factors. The third (the transfer ratio) depends on legislative as well as economic factors, such as pension indexation and productivity growth. In this analysis, this ratio is used to capture the effect of pension reforms. The fourth ratio (the employment ratio) captures the influence of economic factors. In general, the eligibility and the transfer ratios move smoothly over time, since pension reforms usually are implemented gradually and the full effects of changes in pension coverage and benefit improvement are usually felt only after several decades (Chand and Jaeger, 1996).

39. **Projections of pension expenditures are summarized in Table II.3 and Figure II.1.**[15] Pension expenditures are projected to rise by 3.2 percentage points of GDP between 2000 and 2050, slightly higher than the average increase in the EU countries during the same period. Projections of health-care spending and other social spending are based on the projections by the FPB. Specifically, health-care spending (including long-term care for the elderly) is projected to increase by 3.1 percent of GDP during this period, implying that age-adjusted spending will rise much faster than per capita GDP. Other social spending (mainly unemployment benefits) is projected to decline by 1.9 percent of GDP during

[14] However, this ratio can be affected by changes in retirement age. For example, should the government decide to increase retirement age, the old-age dependency ratio would fall.

[15] These projections are consistent with the "alternative" scenario in the study by the FPB, although the FPB has recently revised upward its projection of pension expenditure to 3.5 percent of GDP.

2000-50, as the unemployment rate is assumed to fall substantially by 2050, reflecting presumed labor-market reforms.[16]

Table II.3. Projections of Fiscal Costs of Aging
(Base case, in percent of GDP)

		2000	2010	2020	2030	2040	2050	*Change during 2000-2050*
Fiscal cost of aging:		22.3	21.3	23.1	25.0	26.0	26.3	4.1
of which:	Public Pensions	8.8	8.2	9.5	11.1	11.8	11.8	3.1
	Public health care	6.2	6.9	7.5	8.2	8.9	9.3	3.1
	Unemployment benefits & other	7.3	6.2	6.1	5.7	5.3	5.2	-2.1
Implied ratios:								
	(a) Old-age dependency ratio	0.41	0.44	0.53	0.63	0.66	0.69	0.28
	(b) Eligibility ratio	0.94	0.90	0.93	0.99	1.04	1.03	0.10
	(c) Transfer ratio	16.2	15.3	14.9	14.4	13.9	13.5	-2.66
	(d) Employment ratio	1.4	1.4	1.3	1.2	1.2	1.2	-0.16

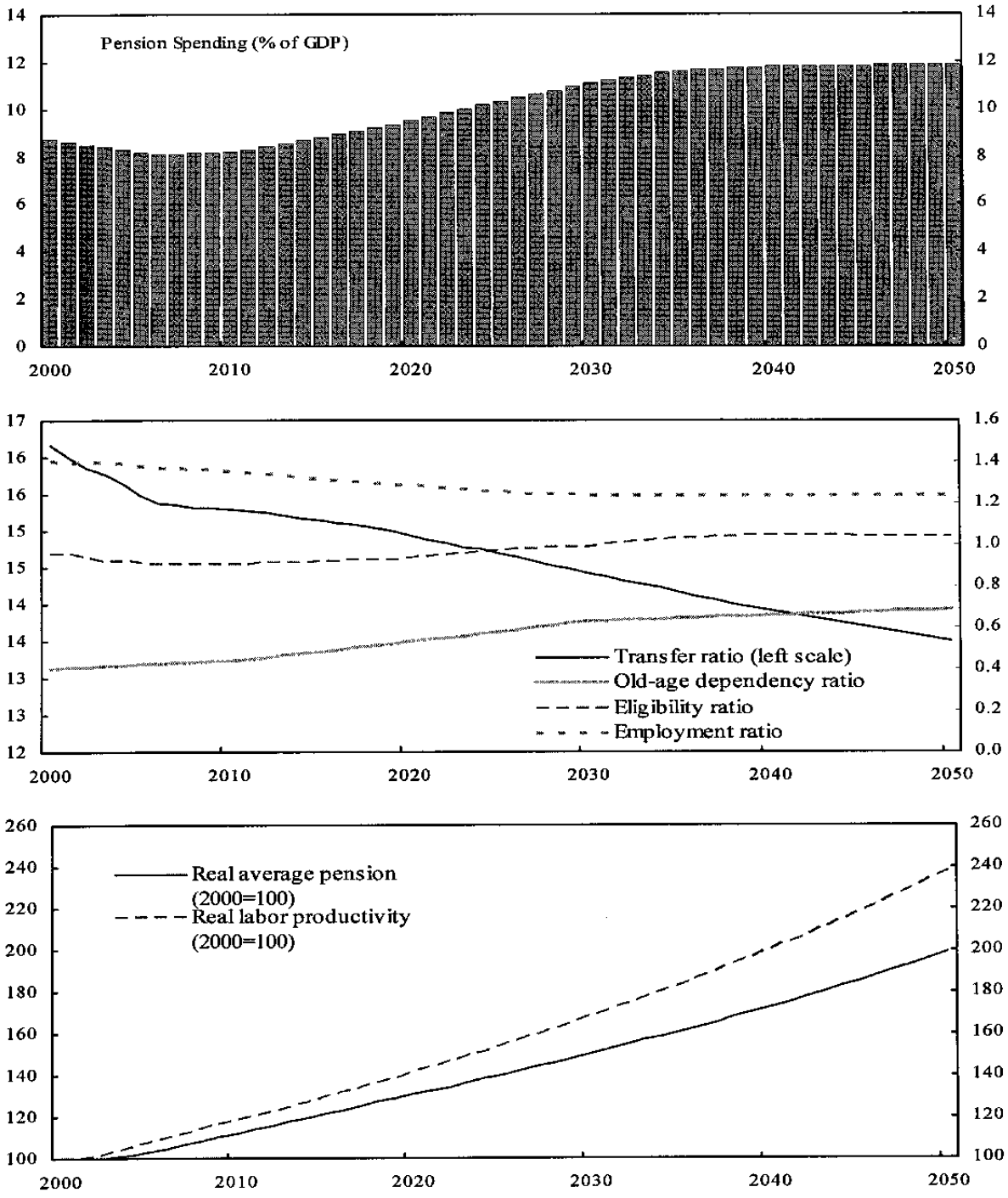
Sources: Belgian Federal Planning Bureau; and Fund staff projections.

40. The relatively modest impact of aging on pension expenditure (particularly when compared to Germany, France, or the Netherlands) is mainly due to **the declining transfer ratio** (i.e., the ratio of average pension per beneficiary to average GDP per worker). If the transfer ratio were unchanged, *ceteris paribus*, pension expenditures could rise by 5.1 percent of GDP between 2000 and 2050, about 2 percentage points higher than in the base case.[17] The transfer ratio has declined since 1990, mainly due to past pension reforms, most importantly because pensions are indexed to prices, not wages (Bogaert, 2000). As a result, real wage growth has outpaced the growth of real average pension payments (see Box II.1). Although each year the government can apply a "welfare adjustment" to allow pension payments to catch up with the national real income growth, this has been rare. The projections in Table II.3 assume a small welfare adjustment of about 0.5 percent of GDP during the period of 2000–50. Under this assumption, by 2050, the accumulated growth of real average pension would be about 40 percent lower that that of real wage growth (Figure II.1). However, this assumption of a small welfare adjustment could well be on the low side, since, with the number of pensioners as a share of the employed expected to increase rapidly from 54 percent today to 88 percent in 2050, the political pressure for a much larger welfare adjustment would certainly rise.

[16] The aging of population also implies an increasing number of pensioners relative to pension contributors. Therefore, future pension revenue would decline relative to pension spending if contribution rates are kept unchanged. In this paper, any changes in pension expenditure are net of changes in pension revenues.

[17] Bogaert (2000) shows a similar result.

Figure II.1. Belgium: Projection of Public Pension Expenditures, 2000-2050



Sources: Belgian Federal Planning Bureau; and Fund staff estimates.

Box II.1. Pension System in Belgium

The pension system in Belgium has three pillars. The first is a mandatory pay-as-you-go public pension scheme, accounting for about 80 percent of total pension expenditure in Belgium. It provides general pensions for wage-earners and self-employed, and is financed by pension contributions (80 percent) as well as transfers from the central government (20 percent). The second pillar includes only private pension schemes, accounting for about 20 percent of total pension expenditure. These private schemes cover nearly 1/3 of employees in Belgian private sector and are not mandatory (Bogaert 2000). Third is individual retirement saving.

The benefit levels of Belgian public pension system are relatively low compared to the EU average, reflected in its low average replacement ratios (see Table below). In addition to the relatively low contribution rates in Belgium, the low average replacement ratio in Belgium is a result of the indexation rule as well as the prevailing early retirement. Although the legal pensionable age is 65, average early retirement age in Belgium, at 59 for men and 55 for women, is among the lowest in the EU countries.

Under the general scheme, a full pension is calculated based on the average wage during a 45-year career, which are indexed to current prices, multiplied by the replacement rate (60 and 70 percent for families with two and one income, respectively). There are wage ceilings applied to pension calculation, which are also indexed to prices. With pensions indexed to prices, the higher growth of wages have led to declining replacement ratios.

	Relative benefit levels	Indexation rules Pensions/ Ref. Salary	Replacement ratio Statutory/ Average	Number of years in reference salary	Contribution rates (% of ave. wages)
Belgium	Low	Prices/ prices w. adj.	60/ 40.7	45	16.36
Germany	Medium	Wages/ wages	48.9/ 48.9	Life long earning	19.1
France	Medium	Prices/ prices	50/ 58	10/25	16.35
Italy	High	Prices/ prices w. adj.	80/ 69.1	5/10/life long	32.7
Netherlands	Low	Wages/	Flat rate/ 31	Unrelated	

Source: EC (2002).

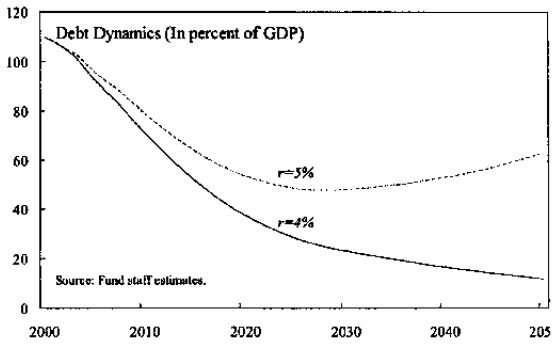
Belgium's pension system has gone through several reforms since the early 1980s, to ensure sustainable and adequate pensions for its population. In 1983, the ceiling on wages used in the computation of pension benefits was lowered, and was kept constant in real terms until 1996 (after which it was indexed to wages), contributing to lower average replacement ratios in Belgium. Although the government could take a "welfare adjustment" each year to allow the pensioners to benefit from the increase in real income, this was rare. Starting 1996, the retirement age for women is being gradually raised (from 60 to 65 years) and the eligibility for early retirement was restricted.

C. Strategies for Meeting the Cost of Population Aging

41. **Fiscal costs of aging can be met by a swift reduction of the national debt to reduce the interest payments.** The Ecofin Council considers the strengthening of public finances through rapid reduction of public debt a central element of its three-pronged strategy (which also include raising employment rates and reforming pension and health care) in dealing with budgetary cost of aging in its member states (EC, 2002). This strategy was also proposed by the Belgian High Finance Council for the period 2000–30 (HFC, 2002).

42. Specifically, **this policy strategy (*scenario A*) envisages a significant reduction in debt-GDP ratio from 108 percent in 2001 to the Maastricht level of 60 percent of GDP by 2013**, followed by further reductions to 23 percent by 2030 and 12 percent by 2050 (Figure II.2). Under this scenario, the estimated aging-related increase in pensions and health-care between 2000 and 2050 (6.2 percent of GDP) would be covered entirely by savings from interest payments resulting from lower public debt, without the need to raise taxes. Specifically, interest payments on the public debt would fall by 6.2 percent of GDP during 2000-50, with most of this reduction (5.5 percent) taking place during 2000–30.

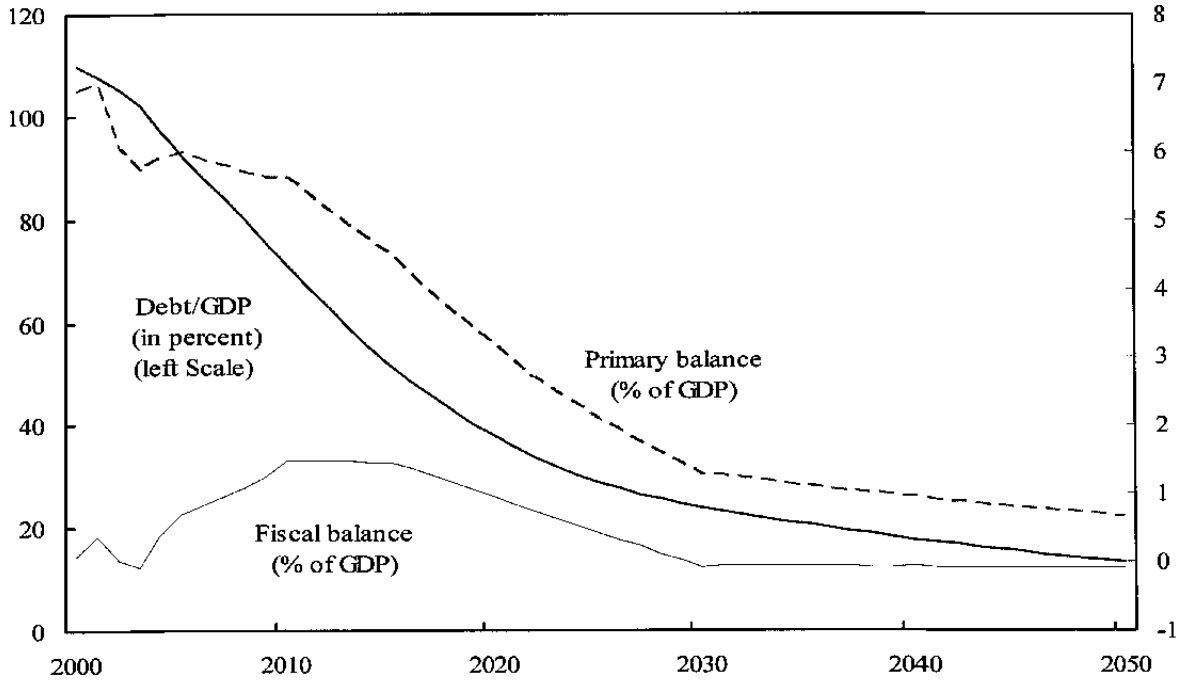
43. **Such policy strategy would require sustained budget surpluses and a gradual decline in real expenditure growth in the long run (Figure II.2).** The budget surplus would need to rise to 0.7 percent of GDP in 2005 (as foreseen by the Stability Program for 2002-2005), and to 1.5 percent of GDP in 2010. This surplus would need to be maintained until 2015, after which surpluses could decline gradually, reaching a balanced budget in 2030. A balanced budget for 2030–50 would further lower the debt-GDP ratio to 12 percent by 2050.[18] The growth of real non-age related primary expenditure would decline from an average of 2.5 percent in 2000–30 to about 1.5 percent in 2030–50.

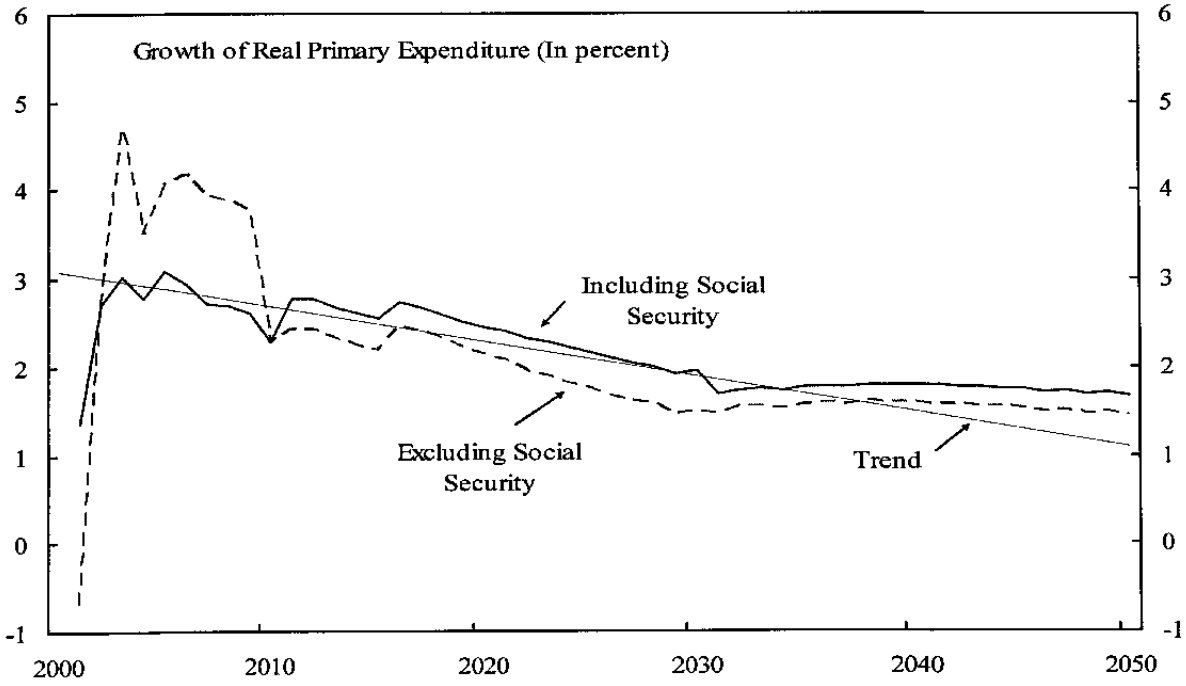


44. **The swift debt reduction would guard against unforeseen shocks and the possibility that pension outlays could prove higher than now forecast.** As debt dynamics are highly sensitive to changes in interest rates (see figure), lower public debt can help to reduce the vulnerability of the Belgian public finances to interest rate shocks. Moreover, pension outlays may turn out higher than now forecast. For example, if "welfare adjustments" fully offset the endogenous fall in the transfer ratio, pension expenditure could rise by 5.1 percent of GDP during 2000-50, about 2 percentage points higher than in the base case. With no tax change and in the absence of reforms to pension and medical plans, a bigger budget surplus would then be needed.

[18] A deficit of 0.7 percent of GDP after 2030 would maintain the debt-GDP ratio at 23 percent during 2030–50.

Figure II.2. Belgium: Fiscal Projections, 2000-2050





Source: Fund staff estimates.

45. **Delaying adjustment is costly, in that to fully fund aging costs through debt reduction requires higher taxes later on** (Figure II.3).[19] Based on the generational accounting framework, established by Gokhale and Kotlikoff (Kotlikoff, 2001), the government's intertemporal budget constraint is:

$$T = \sum_{j=t+1}^{\infty} \frac{T_{t,j} N_{t,j}}{(1+i)^j} + \sum_{j=0}^{d} T_{t,t-j} N_{t,t-j} = \sum_{j=0}^{\infty} \frac{G_{t+j}}{(1+i)^j} + D_t = L$$

where $T_{t,k}$ stands for tax per capita in year t applied to population born in year k (k>t implies future generation) and $N_{t,k}$ stands for population in year t born in year k. If the intertemporal budget constraint were not met, revenues would need to rise. The permanent adjustment required to close the gap is given by *(r-g)(L-T)/GDP*, where *r* and *g* refer to real interest rate and real growth rate. Hence, the later the adjustment takes place, the larger the gap (L-T) is, and the greater the needed permanent adjustment.

46. This is illustrated in Figure II.3. In contrast to scenario A, an alternative of running a balanced budget through 2030 (*scenario B*), which results a smaller fall in the debt-GDP ratio, allows a lower tax rate until about 2020, but requires a higher one thereafter in order to converge to the debt path under the scenario A. The cost of delaying in adjustment is further demonstrated with other two scenarios, where delaying adjustment till 2013 (*scenario C*) and 2023 (*scenario D*) would lead to permanently higher tax rates after 2013 and 2023, respectively.[20]

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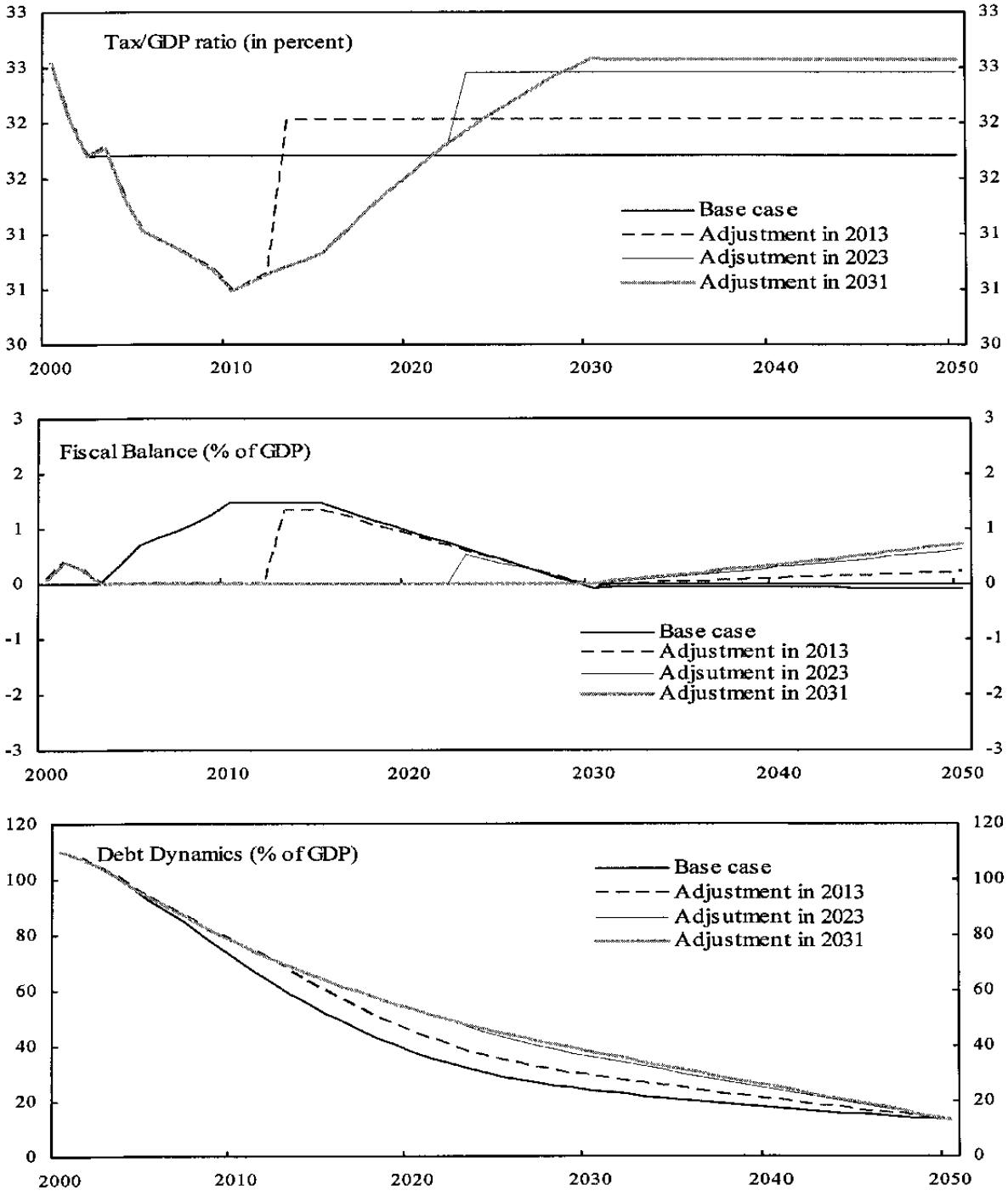
[19] This framework was used in a study by the Netherlands Bureau for Economic Policy Analysis in analyzing budgetary consequences of aging in the Netherlands (see van Ewijk et al., 2002). It is important to emphasize that an analysis along these lines does not address the issue of the "optimal" fiscal policy, and the policy scenario discussed here would not necessarily yield an optimal debt level.

[20] Policy scenario A implies an immediate and permanent adjustment in 2002, and as a share of GDP tax rates are assumed to be constant in order to minimize deadweight loss. The rationale for "tax smoothing", laid out in Barro (1979), is that the distortionary cost of a tax rises more than proportionally with the tax rate, implying that the total distortion is minimized when the tax rate is constant. Note that the efficiency gain from tax smoothing does not necessarily lead to intergenerational neutrality (i.e., equal net benefits across generations).

Figure II.3. Belgium: Adjustment Scenarios, 2003-2050



Source: Fund Staff estimates.

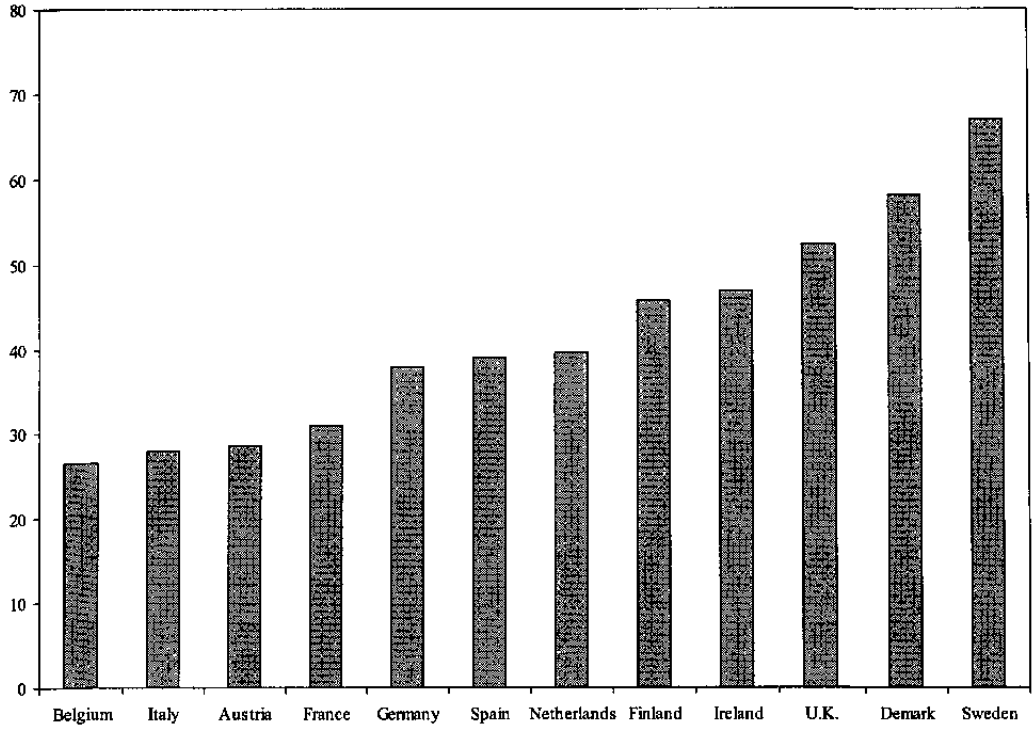
47. **Further reform of the pension system, specifically reductions of the built-in incentives for early retirement, would be necessary to complement the fiscal consolidation effort.** By European standards, the generosity of public pensions in Belgium is not high, nor is the country's implicit pension debt (EC, 2002; and Holzmann et. al. 2001), thanks to past pension reforms (see Box II.1). However, Belgium—among France, Italy, Luxembourg and Austria—faces the biggest challenge from lower activity rates, with employment rates for people in the 55–65 age group between 25 and 30 percent (Figure II.4). Although the legal pensionable age is 65, the average early retirement age in Belgium is among the lowest in the EU countries. Among other structural factors, low activity rates are found to be correlated in particular with the eligibility requirement for early retirement and/or disability program (EC, 2002). According to the same EC study, raising the effective retirement age by one year could lead to a reduction of pension spending up to 1.1 percent of GDP. Furthermore, pension reform that discourages early retirement would increase employment and enhance growth.

48. **Fiscal costs of aging can also be contained by controlling health-care spending.** Health-care costs increased in real terms by 4 percent a year in the past five years, and are set to rise by 5 percent in the 2003 budget (reflecting partly a broadening of coverage). New control mechanisms have recently been introduced, but even so the cost pressure from technological advances and population aging is likely to increase. The projection for health-care cost, which is based on the study by the FPB, assumes that health-care spending will increase by 3.1 percent of GDP between 2000 and 2050, implying an average real growth of 2.7 percent. To reduce the growth of real health care spending from the current average of 4-5 percent to this level would certainly require policy measures.

49. **Pension and health care reforms would free budgetary resources for alternative uses, notably tax cuts to boost employment**. In an extreme case where all the savings from interest payments (6.2 percent of GDP) were used to reduce federal taxes, the revenue of the federal government (including social security contributions) could fall by about 5 percentage points of GDP between 2002 and 2050.[21] This reduction of tax burden could, for example, reflect payroll tax reductions of 10 percent between 2002 and 2050, assuming that compensation of employees as a share of GDP is constant at its average level during 1990-2001 (about 52 percent). Based on an average payroll tax rate of 25 percent in 2001, this would mean a reduction of the payroll tax rate to 15 percent.

[21] Assuming that (i) non-aging-related primary expenditures grow in line with GDP growth, hence the total primary expenditure as a share of GDP stay constant during 2002–50; and (ii) the revenues of local governments rise in line with GDP growth.

Figure II.4. Employment Rate For Age Group 55-65 in Selected EU Countries in 2001
(In percent of active population 55-65 years old)



Source: EC (2002).

D. Concluding Remarks

50. The fiscal cost of population aging is projected to rise by 6.2 percent by 2050, only partially offset by possible savings from lower spending on unemployment benefits. The fiscal pressures of population aging and the high debt-GDP ratio argue for a sustained surplus position. A policy strategy to prepare for population aging by rapidly reducing the public debt, as proposed by the High Finance Council, seems sensible. This strategy would guard against unforeseen shocks and the possibility of higher-than-forecast pension outlays. In addition, it would free up resources, stabilize the tax burden over time, and avoid a reduction in pension generosity. Delay in adjustment is costly, in that to fully fund aging costs through reduction in interest payment requires higher taxes later on. Reforms of the pension system—specifically with regard to eligibility requirements for early retirement—would also contain the budgetary cost of aging and free resources for alternative uses, notably tax cuts for the business sector to boost employment growth.

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III. Regional Economic Development in Belgium[22]

51. **Over the last three decades the performance of the Belgian economy has witnessed sharp geographical disparities.** Taken alone, the regional economy of Flanders would be among the best performing European economies; and Flemish real per capita GDP is now more than ⅓ higher than in Wallonia, while 50 years ago it was almost one-fifth lower. It is worth emphasizing, however, that experience within both Flanders and Wallonia has been far from uniform, as some areas in the former have lagged and some areas in the latter are prosperous. Nevertheless, much of the subsequent discussion will be at the level of the Flemish and Walloon *régions*, reflecting the fact that regional development policy is now vested in the governments of these *régions,* and also because of data availability.[23]

52. **Apart from their national significance and macroeconomic importance, Belgium's regional problems offer valuable insights for other countries facing similar disparities.** Other countries with regional disparities, notably Italy, Spain, and post-unification Germany, may be able to draw lessons from the Belgian experience. Also, Belgium is now more politically and fiscally decentralized than those of some other countries with regional differences, e.g., the United Kingdom, Italy, and France, and the Belgian experience may therefore offer valuable guidance on the interaction between decentralization and regional development.[24] Finally, and related to the latter point, the policy environment within which Belgian regional policy has operated—notably, the absence of an independent monetary policy, the restrictions on fiscal policy through stability programs, and the lack of large scale interregional/national transfer mechanisms—resembles in some respects the one faced by national governments in the euro zone.

53. **This chapter attempts to distill the Belgian regional development policy experience.** The first section provides some background on regional issues in Belgium. Next, the course of regional policies is charted. Finally, stock is taken of the results achieved thus far. The main conclusions are mixed: while decentralization was accompanied by changes in the focus and delivery of development policies and there is some evidence of convergence, it is clear the much remains to be done.

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[22] This Chapter was prepared by Gerwin Bell.

[23] The term regional policy as used here concerns economic policies seeking to have differential impact on different subnational geographic areas. This may lead to misunderstandings in the Belgian context, where the largest geographical subnational units (Flanders, Wallonia, and Brussels) are called "*régions:*" when specifically referring to these, this Chapter will use therefore the term *région*.

[24] See Chapter I, "Fiscal Devolution in Belgium" for a discussion of the fiscal dimension of decentralization.

A. Some Background on Regional Issues in Belgium

54. **Considering developments at the broad level of the *régions*, economic performance and structure has varied substantially over time.** For more than a century, starting in the early 1800s, Wallonia was Belgium's economic powerhouse, with an economy based primarily on coal mining and heavy industry. Since the mid-1950s, however, the economy of Flanders has fared significantly better (Table 1). While some of this reversal initially reflected convergence, Flanders eventually surpassed Wallonia to become the more prosperous and dynamic region.[25]

Table III.1. Regional Economic Performance, 1955–97
(Average annual percentage changes, unless otherwise indicated)

	Flanders	Wallonia	Brussels
Growth in real regional value added			
1955-73	*5.0*	*3.2*	*3.7*
1974-81	*2.2*	*1.7*	*0.7*
1982-89	*2.9*	*1.5*	*1.2*
1990-97	*2.1*	*1.5*	*0.8*
1955-97	3.5	2.2	2.1
Memorandum items:			
Per capita GDP (index, Belgium = 100)			
1955	88.3	100.6	155.9
1997	104.7	76.5	152.1
1999, corrected for commuters to Brussels	107.7	81.3	112.1
Per capita GDP (index, EU average = 100)			
1980	111.3	93.5	188.9
1997	113.5	86.1	167.8

Sources: Institute of National Accounts data, compiled in KBC (1999), Eurostat Cronos database, and IMF: *International Financial Statistics.*

55. **It was hoped that increased regional authority, apart from addressing popular demands, would help redress economic imbalances.** The 1980s and 1990s saw a substantial decentralization of power (and fiscal authority) from the center to the *régions* and the linguistic communities. The subsidiarity principle of economic policy would suggest that the differing economic conditions in the *régions* could be better addressed by granting the relevant subnational governments greater leeway in their economic policies. This was

[25] These results are reinforced when GRP data, based on the location of production rather than residence, are corrected for the distortion imparted by workers living outside of Brussels, but commuting there to work.

especially salient since at the time it was felt that public resources were inefficiently deployed and insufficiently tailored to specific needs.[26]

B. A Brief History of Belgian Regional Policy

56. **Regional policy typically has several targets and can pursue a mix of strategies** (Box 1). The ultimate objective of regional policies to reduce economic disparities between regions by increasing economic growth in poorer areas, and by implication, of the national economy as a whole.

Box III.1. Justification for Regional Policy Intervention

At least five standard reasons have been advanced for regional policy (Armstrong and Taylor, 2000):

- regional economic disparities are unfair and cause resentment and dissatisfaction;
- high unemployment in one region tends to persist through negative effects on that region's human capital, which would not accrue if unemployment could be reduced;
- regionally concentrated economic growth is inefficient because it creates congestion in the booming regions;
- regionally concentrated growth and unemployment ratchets up the macroeconomic rate of inflation and unemployment,
- the flexibility requirements needed to back up a market approach are too onerous: it is argued that it would be politically impossible or ineffective, to, for example, increase mobility incentives or reduce congestion with peak-load road pricing.

57. **If one were to conceptualize regional policies in the broadest sense, a symmetry with international development policies would arise.** Regional policies can be divided into two broadly distinct approaches: those seeking to attract investment (and increase regional exports) and those seeking to promote indigenous economic development.

- Typical examples of export-based policies are broad incentives to attract foreign direct investors (often in industries perceived as key), the establishment of industrial parks (targeted infrastructure), and export promotion schemes.

[26] For example, the OECD observed: "... the state budget was kind of a free-for-all in which the allocation of resources gave rise to all kinds of haggling and trade-offs between the various regional entities in the country. Such haggling often meant that resources were wasted, frequently attracting bitter criticism." (OECD, 1994, p. 31.)

- Inward-oriented policies are characterized by investment in general infrastructure and human capital, though often their *de-facto* effect has been to prevent decline in existing industries.

It is important to note that both these approaches seek to move capital to jobs, rather than to encourage labor mobility.

58. **Belgian regional policy has used a variety of instruments over time.** Belgium was a relative latecomer to regional policy (Vanhoudt and Buyst, 2002), starting at the end of the 1950s with the implementation of economic policies with a regional focus when the coal crisis affected Wallonia. Initial efforts focused on the then-prevalent policy of supporting industry (OECD, 1994). Support was given in the form of interest-rate relief on, and guarantees for, borrowing, a policy tool which remains in the arsenal of regional policy makers. Regional policy was centered on "development regions"—regions with structural adjustment problems—with the aim that the population of such regions was not to exceed 15 percent of the entire population. In the mid-60's the focus of regional policies was broadened to include regions adversely affected by the decline of the coal-mining industries in the South, and to regions lagging in industrial development. Moreover, national policies to subsidize "strategic industries", such as textiles and ship building, had distinct regional effects. In the 1970s, much of existing regional policy was formalized into specific legislation, policy instruments were broadened to include capital subsidies, tax exemptions, and targeted measures were introduced to address training and infrastructure needs. Furthermore, small and medium-enterprise development was given a regional dimension. Most recently, regional policy has shifted toward fostering high-tech and knowledge clusters and their associated spin-offs.

59. **The change in instruments has been partly driven by changing needs.** Throughout the 1970s, central government regional policy initiatives were divided almost evenly between the two major regions (OECD, 1994). However, even under these conditions, the emphasis of regional policies differed across *régions*, mainly reflecting historical patterns. The severe difficulties in the Walloon heavy industry and coal sectors triggered direct aid to these sectors. Flanders, with a more diversified economy, benefited from investment in new infrastructure, such as the harbor in Antwerp.

60. **Moreover, devolution introduced important differences in the targeting of regional support.** Starting 1978, the *régions* were given authority to implement and interpret central government regional policy legislation. In principle, the eclipse of a central government by regional governments can have ambiguous effects on the effectiveness of regional policy. As indicated above, proponents of devolution have argued that subsidiarity ensures more efficient policy intervention. Skeptics, on the other hand, argued that many objectives of regional policies have an externality that can only be internalized at the national level. Thus, sub-national entities would not extend sufficient effort to achieve nationally optimal policy outcomes. From the country-wide perspective, regional policy developed two dimensions, (i) policies used by the different *régions* across their territory, and (ii) the

policies individual *régions* use to address sub-regional disparities. Figure 1 summarizes some indicators:

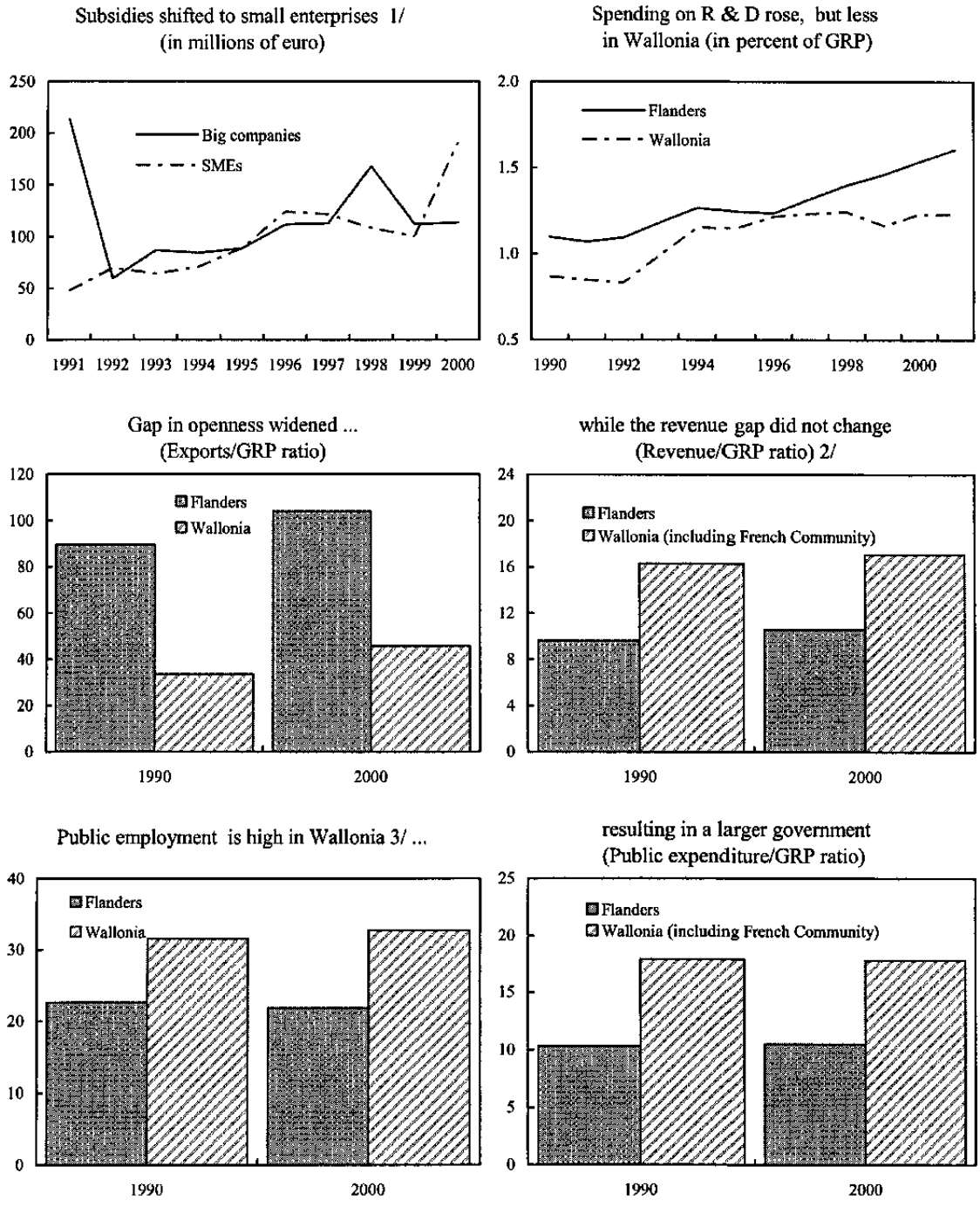
- **Wallonia** traditionally focused its regional policy on direct aid to support industries in distress, more recently making such subsidies conditional on performance goals (such as investment, employment, and innovation). Apart from being consistent with the inward-oriented regional development model, these policies of course also reflected social needs. Turning to specific regional policies, apart from support to areas with declining industries, Wallonia has also moved to support depressed agricultural zones to encourage diversification. Regarding human capital, Wallonia has relied principally on retraining and active employment measures. More recently, the *région* has decided to change the orientation of regional policy, as evidenced by the "contract with the future," and is accordingly focusing more on creating a favorable enterprise environment and high-tech and knowledge clusters.[27] Some evidence that this policy shift may be paying off may be seen in the number of per capita patent applications, which between 1995 and 2000 have grown by more than 20 percent a year and are beginning to catch up with those in Flanders and neighboring European countries. The *région* has also spent comparatively more on public services and public employment. Reflecting these policy choices, in 1997 public primary expenditures per head were some 9 percent higher than in Flanders, mainly reflecting a higher wage bill and transfers (Bisciari, 1998). The higher level of primary spending resulted in a larger stock of debt and larger interest payments than in Flanders, and persistent, albeit declining budget deficits.

- **Flanders**, also initially adopted a traditional inward-oriented policy of supporting large enterprises. But direct aid to enterprises was reined in significantly in 1991 (Bisciari, 1998). Emphasis was shifted to creating an enabling environment for the private sector, attracting investment, trade promotion, and assistance to small and medium enterprises (OECD, 1994).[28] Flanders attempted to develop general human capital, and the share of the labor force with tertiary or higher education climbed from 11.4 percent in 1986 to 21.1 in 2001 (the Walloon ratios are 11.6 and 19.4 percent, respectively). Arguably, as a result of these policies Flanders was more open and better placed to exploit the gains from the European common market (Capron and Hostelard, 1991). Specific regional policy instruments included research and development zones, which were set up around major universities to foster a high-tech cluster through research links between universities and companies. Similar efforts

[27] There has, however, been some recent controversy about whether the actual budget implementation follows these goals, see UWE (2002).

[28] Of course, not all Flemish policies should be emulated: one recent study (Cockx and Ridder, 2001) assesses an active labor market policy scheme in Flanders and finds it a complete failure.

Figure III.1. Belgium: Indicators of Regional Policy and Performance



Source: Eurostat, Cronos database and data provided by the authorities.

1/ There are no data on the composition of subsidies in Wallonia.

2/ Including shared revenue.

3/ In percent of overall employment, including "non-market employment".

created so-called "impetus areas" and "unemployment action zones." Turning to budgetary policies, Flanders focused more on investment rather than consumption and transfers (Bisciari, 1997).[29] The fiscal position improved, reaching a surplus in 2000 (Figure 2). One result has been a better credit rating than the other *régions*.[30] The overall size of government as well as government consumption have remained considerably smaller in Flanders. While in per capita terms overall primary expenditures in Flanders are only marginally lower than the aggregated value for Wallonia and the French community, they are considerably smaller when expressed as a percent of regional income.[31] In short, Flanders spends more on public investment, but less on wages, subsidies and interest payments. More detailed studies (Dermien et al., 2002 and Bisciari, 1999) confirm this pattern, and in addition indicate that Flanders spends less on regional policy (in part reflecting less of a need to cofinance EU projects), but more on social services, education and culture. On the other hand, Flanders has recently also increased public employment, strengthened environmental regulation, and expanded the social welfare system through the introduction of a nursing care scheme.

- The **federal government**'s role in regional policy has been increasingly limited to enforcing compliance with EU regulations on state aid and social and agricultural policies. National policies, such as social security or employment protection, continue to have a "passive" regional dimension to the extent that they effect different geographical parts of the country differently due to, for example, differences in population and employment characteristics.

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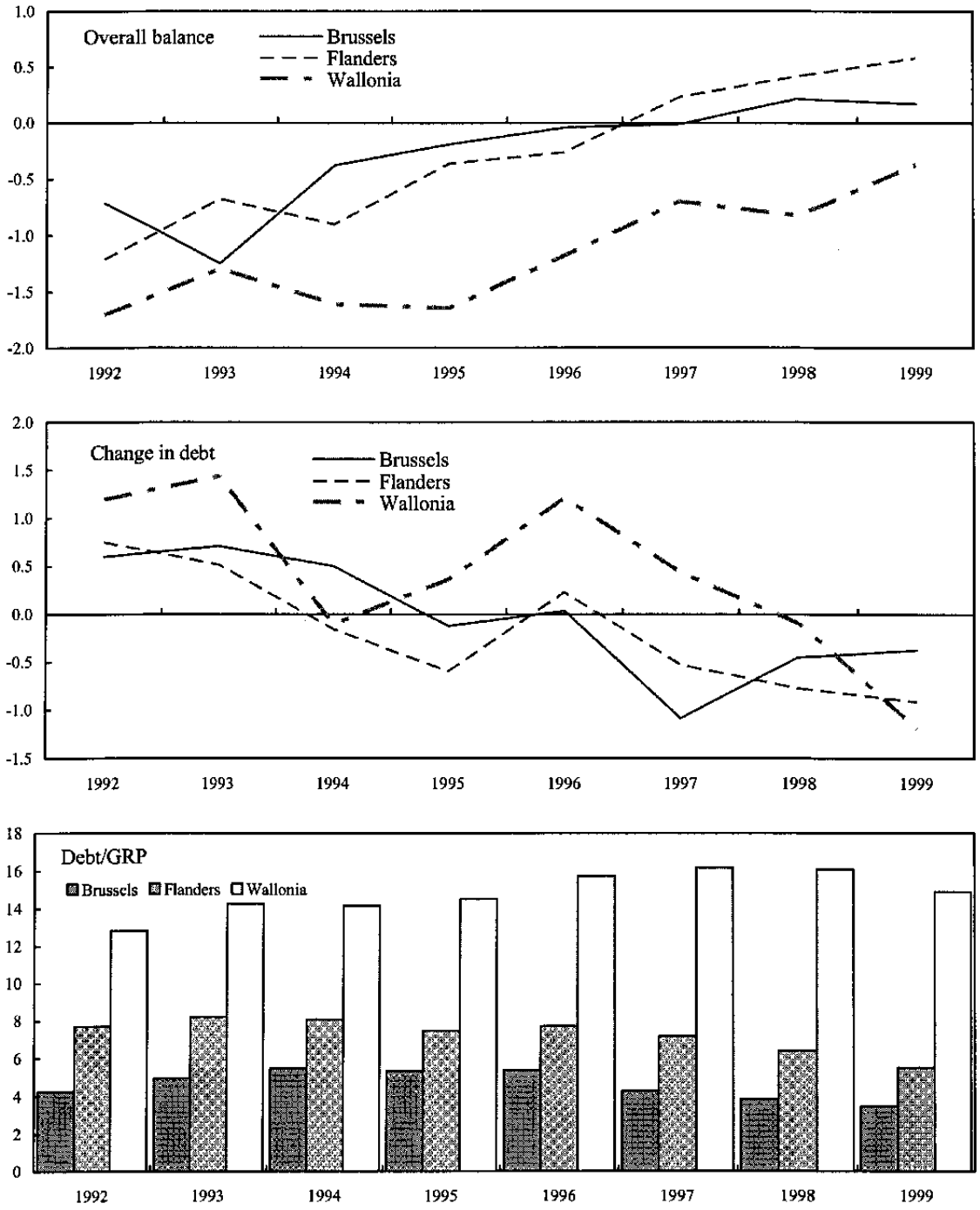
[29] Public investment targeted environment, water, and transport infrastructure, including through transfers to local authorities and, recently, public-private partnerships.

[30] At present, Flanders holds a AA+ rating with a stable outlook by Standard & Poor's, the same as Belgian sovereign debt. Brussels is rated a notch lower at AA, also with a stable outlook. Wallonia is rated Aa3 by Moody's, with a stable outlook.

[31] This assessment is based on an aggregated view of the 2001 budget performance. An exact assessment is made difficult by the need to properly account for expenditure by the French community and the Flemish budget in Brussels. The assessment is based on the population census-based allocation mechanism discussed in Dermien et al. (2002).

Figure III.2. Belgium: Indicators of Regional Fiscal Performance 1/
(In Percent of Gross Regional Product)



Source: High Council of Financ; Chronos database.
1/ Data for Wallonia also comprise the French Community budget.

61. **The EU became an important player in Belgian regional policies**. The EU has in the past stepped in to narrow the scope of regional support extended by the national government.[32] But it has also significantly increased its own regional spending in Belgium by more than two and a half times between 1989–93 and 1994–99, to a level of €2.1 billion, equivalent to some 0.2 percent of Belgian GDP. Taking into account the national cofinancing mobilized, this resulted in annual allocations of some 0.6 percent of GDP (EU, 1997a). EU regional spending is targeted to meet a set of objectives (Box 2); Table 2 shows the levels of support allocated in fulfillment of these objectives.

Box III.2. EU Regional Policy Objectives in Belgium

EU regional policy support has been directed to specific objectives. Under the 1994-99 five-year program, Belgian regions qualify for the following (see EU, 1997b):

- Objective 1 ("economic adjustment of regions whose development is lagging behind"): The Hainaut area in Wallonia was eligible for such support in 1994-99, explaining much of the sharp rise in EU regional spending in Belgium.[1] The goal was to have per-capita GDP in the Hainaut province grow by 0.5 percentage points more than the EU average. The lion's share of spending was allocated to direct aid to enterprises, indirect aid through improving the productive environment (diverse measures from supporting exports of small and medium size enterprises to cleaning up derelict sites), and human resources (mainly training the unemployed and other problem groups on the labor market) (EU 2001).

- Objective 2 ("economic conversion of declining industrial areas"): areas in both Wallonia (Aubange, Hainaut, Liege) and Flanders (Limburg, Turnhout) were eligible for support under this objective. Measures aimed to stimulate endogenous development and continued support to enterprises, but also the improvement of water quality.[2]

- Objectives 3 and 4 ("human resource development outside regions eligible for Objective 1"):[3] Measures were geared toward improving the labor market prospects of the long-term unemployed and other problem groups on the labor market (ex-convicts, immigrants, the handicapped, and the low skilled).

- Objective 5a: The target was to speed up the adjustment and modernization of the agricultural sector in the framework of the common agricultural policy (CAP). Some 20 percent of the Belgian agricultural area—covering parts of both Flanders and Wallonia—was designated as "less favored." Additional funds were allocated to support reduction of the fisheries fleet.

- Objective 5b ("economic diversification of rural areas"): The focus was to reinforce the endogenous development of the affected regions, in both Wallonia and Flanders.

- "Community initiatives": Belgium takes part in all but one of these, participating in those for industrial conversion, small and medium sized enterprises, urban areas, and human resources.

[1]For the 7-year period 2000–06, Hainaut has lost its objective 1 status but qualifies for transitional support of €645 million, which is expected to give rise to an equivalent expenditure by the Walloon *région*.
[2] Under the 2000-06 program, in Wallonia, the Liege region benefits from EU support to improve the competitiveness of enterprises, while the remainder of Wallonia is eligible for rural programs. Flanders has four program in the provinces of West and East Flanders, Antwerp, and the largest in Limburg. *région*.
[3]These two objectives have recently been combined into one "objective 3", which is also the reference framework for all measures taken under the employment chapter of the Treaty of Amsterdam.

[32] For example, in the early 1980s, the EU reduced the size of "development zones" eligible for direct aid from 40 percent of the population to 36 percent.

Table III.2. EU Regional Policy Support Allocations, 1989–2006 1/
(In millions of Euro/ECU)

	1989-93			1994-99			2000-06		
	Total	EU	Cofinanced	Total	EU	Cofinanced	Total	EU	Cofinanced
Objective 1	0	0	0	2,412	730	1,682	...	645	...
Flanders	0	0	0	0	0	0	...	645	...
Wallonia	0	0	0	2,412	730	1,682	...	0	...
Objective 2	516	214	302	1,060	341	719	...	445	...
Flanders	271	110	161	...	...	...	...	186	...
Wallonia	245	104	141	...	...	...	...	259	...
Objectives 3 and 4	821	344	477	1,211	465	746	...	929	...
Flanders	...	...	...	...	...	...	...	...	...
Wallonia	...	...	...	...	...	...	...	...	...
Objectives 5a and b	964	182	782	1,096	272	824	...	...	...
Flanders	...	...	...	...	...	...	...	...	...
Wallonia	...	...	...	...	...	...	...	...	...
Community initiaitves	124	124	0	754	288	466	...	...	...
Total	2,425	864	1,561	6,533	2,096	4,437	...	...	...
average annual in percent of GDP									
			(In percent of total)						
Objective 1	0.0	0.0	0.0	36.9	11.2	25.7	...	...	...
Flanders	0.0	0.0	0.0	0.0	0.0	0.0	...	...	...
Wallonia	0.0	0.0	0.0	36.9	11.2	25.7	...	...	...
Objective 2	21.3	8.8	12.5	16.2	5.2	11.0	...	...	...
Flanders	11.2	4.5	6.6	...	...	...	...	...	...
Wallonia	10.1	4.3	5.8	...	...	...	...	...	...
Objectives 3 and 4	33.9	14.2	19.7	18.5	7.1	11.4	...	...	...
Flanders	...	...	...	...	...	...	...	...	...
Wallonia	...	...	...	...	...	...	...	...	...
Objectives 5a and b	39.8	7.5	32.2	16.8	4.2	12.6	...	...	...
Flanders	...	...	...	...	...	...	...	...	...
Wallonia	...	...	...	...	...	...	...	...	...
Community initiaitves	5.1	5.1	0.0	11.5	4.4	7.1	...	...	...

Source: European Union.
1/ The numbers are budgeted figures.

62. **The lion's share of EU support continues to be geared towards human resource development**. More funds have recently been allocated to infrastructure and productive environment, but this is largely explained by disbursements of objective-1 funds to Hainaut, which aims to improve the competitiveness of enterprises (⅓ of all total), the attractiveness of the regions—e.g., through cleaning up industrial sites—(¼ of total), prospects for tourism and research facilities (one-fifth each). With the overall share of funds for the improvement of enterprise competitiveness has remained stable. Instruments have shifted from direct aid toward providing risk capital.

C. Taking Stock

Regional development—stylized facts

63. **Differences in the sectoral composition of *régions* have increased** (Figure 3). On average, Flanders and Wallonia have grown more dissimilar, accentuating previously existing differences. The economy of Flanders is characterized by higher shares of energy production, transport equipment manufacturing, chemical industry, textiles, airport and harbor services, while the Walloon economy has significantly higher shares of minerals exploitation and primary commodities processing, commercial services, education, government services, and real estate. The discrepancy in sectoral shares has increased in ⅔ of the sectors and the standard deviation of their sectoral differences has edged up from 1.4 in 1987 to 1.5 in 1997, the latest year for which these data are available.

64. **Looking at the more disaggregated level of provinces and arrondissements, per capita income appears to have converged over time.** Table 3 shows that a high initial per capita income has a negative effect on subsequent growth rules, i.e., over time incomes of richer and poorer regions will tend to converge. At the NUTS 2 level (provinces), this effect is estimated at some 2½ percent per year.[33] However, at the NUTS 3 level (arrondissements) the size of this effect declines to ¾ percent and is no longer statistically significant (columns 2a - 2c). There is some evidence that convergence is weaker within Wallonia than Flanders at both the NUTS 2 and NUTS 3 levels (Figure 4).

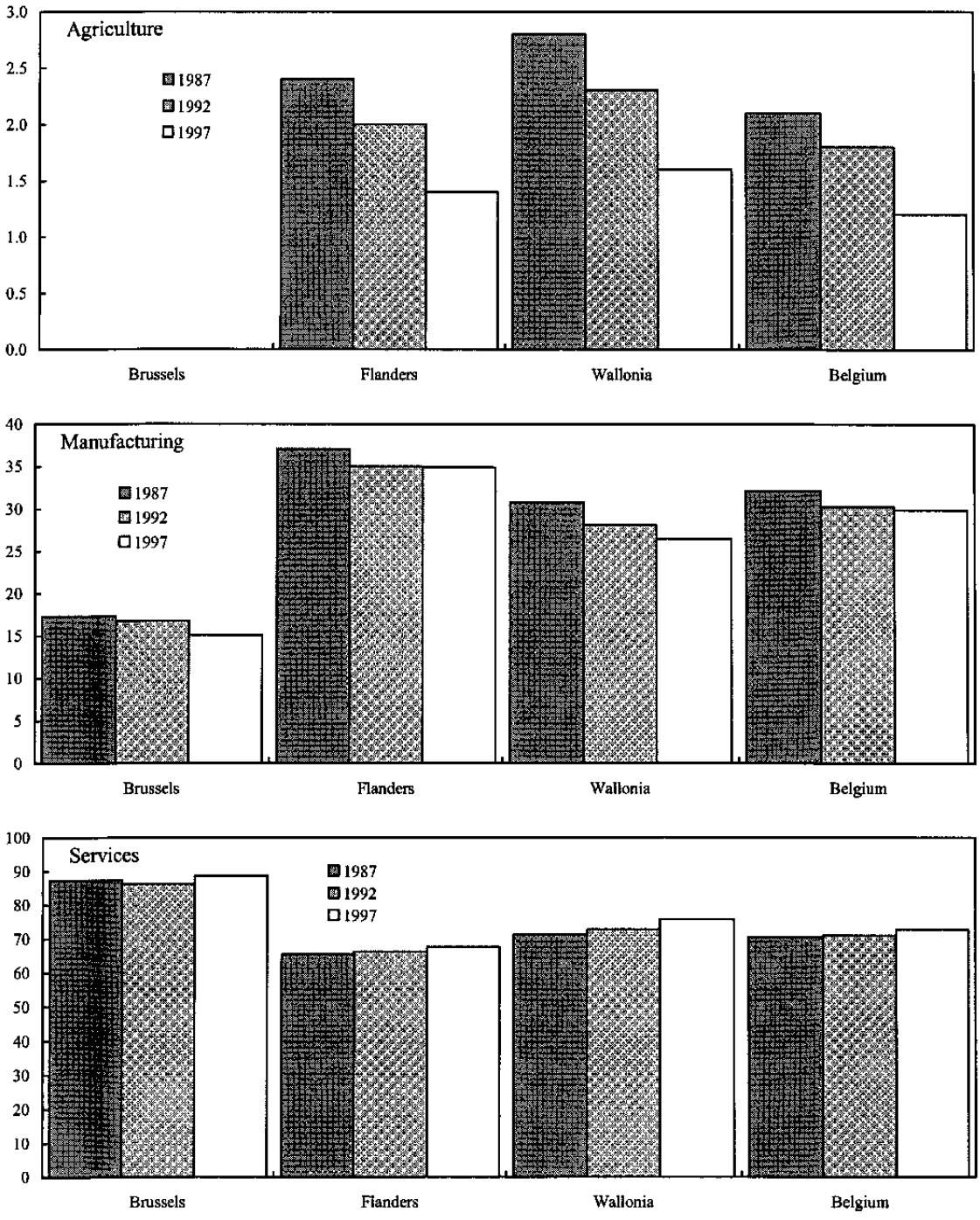
Table III.3. Growth Regressions (dependent variable: average real growth of GRP)
(t statistics in parentheses, absolute values)

	(1a)	(1b)	(1c)	(2a)	(2b)	(2c)
	1985-99	1985-95	1995-99	1985-99	1985-95	1995-99
Constant	0.351	0.368	1.227	0.121	0.132	0.093
	(3.391)	(2.475)	(3.391)	(1.789)	(1.732)	(0.381)
Initial income	-0.025	-0.026	-0.087	-0.007	-0.008	-0.013
	(3.156)	(2.308)	(3.156)	(1.435)	(1.411)	(0.719)
Wallonia Dummy	-0.012	-0.013	-0.041	-0.008	-0.008	-0.021
	(4.281)	(3.274)	(4.281)	(3.709)	(3.385)	(2.492)
adjusted R square	0.659	0.505	0.659	0.223	0.188	0.193
Number of observations	10	10	10	42	42	42
Level of aggregation	NUTS 2	NUTS 2	NUTS 2	NUTS 3	NUTS 3	NUTS3

The numbers indicate regression coefficients of a log linear specification that regresses nominal average annual GRP growth rates on a constant, initial income, and a dummy variable for Wallonia. The t-statistics are in parentheses. Annual data for 1985-99, obtained from Belgostat.

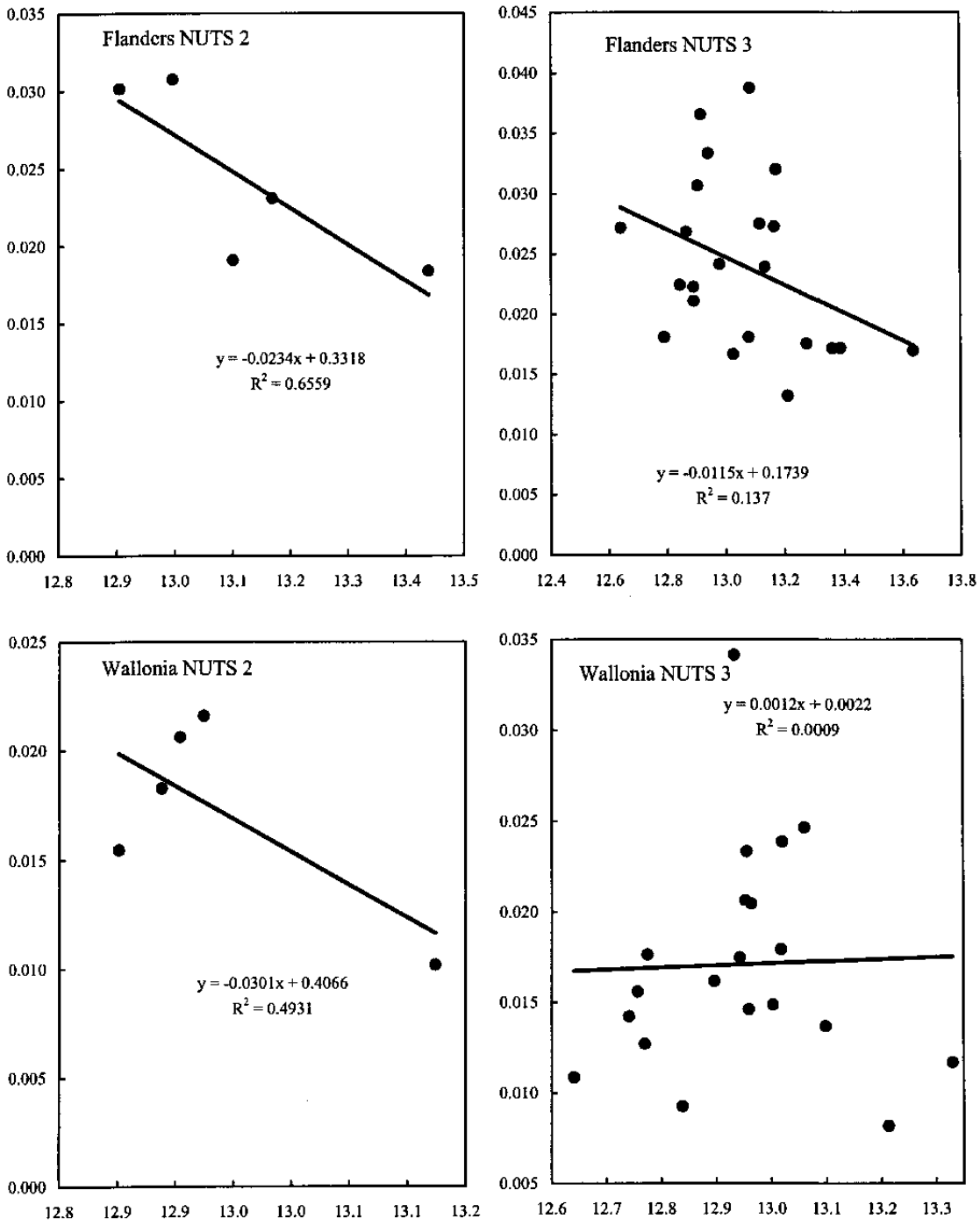
[33] The convergence rate of 2½ percent (column 1a, coefficient on initial income) conforms to international evidence that has put typical convergence speed between 2 and 3 percent over a number of country and regional samples (see Baumol,1986, and Barro and Sala-i-Martin, 1995).

Figure III.3. Belgium: Sectoral Decomposition of Value Added
(In Percent of Total Value Added)



Source: Data provided by the authorities.

Figure III.4. Belgium: Regional Growth Regressions 1/



Source: Staff estimates based on Belgostat data.
1/ Regression is (log of) growth against initial income.

65. **However, the process of convergence is far from complete.** As described above, Hainaut was identified as a region in severe distress, and accordingly benefited from special EU structural support under "objective 1 status." Nevertheless, it still has the lowest per capita GRP in Belgium, and its growth performance fell behind both the Belgian and the Walloon average, with the differential actually widening over the most recent period. While these developments do not necessarily suggest a negative effect of regional policy—the counterfactual in the absence of regional policy may have been even worse—it does indicate that regional policy is not fully achieving its goals.

66. **The distribution of per capita income within *régions* has also become somewhat more equal**. In other words, there is some evidence for a convergence in the distribution of GRPs within both Flanders and Wallonia. However, while the statement holds for Flanders irrespective of the level of aggregation, a more nuanced assessment is called for in Wallonia and Belgium as a whole (Figure 5). In both, inequality has declined at the NUTS 2 level, but at the NUTS 3 level inequality has risen in Wallonia, and for Belgium as a whole that increase has cancelled out the decrease in Flanders. Further disaggregation shows that the reduction in variation within Flanders is due to lagging provinces catching up with the better performers: at the Nuts 2 level while in 1977 three out of the top half GRP Belgian provinces (excluding Brussels) were situated in Flanders, in 1999 Flemish provinces took 4 of the 5 top spots; at the NUTS 3 level, in 1977 2/3 of the top 50 percent of arrondissements were located in Flanders, a rate that increased to ¾ in 1999. The reverse is true for Wallonia: for instance at the Nuts 2 in 1977 four of the lowest five per capita income provinces were in Wallonia, but all five were in Wallonia in 1999. The better performance of Flanders with its historically higher inequality conforms to other evidence that countries or regions with more inequality tend to grow faster (see Quah, 1996).

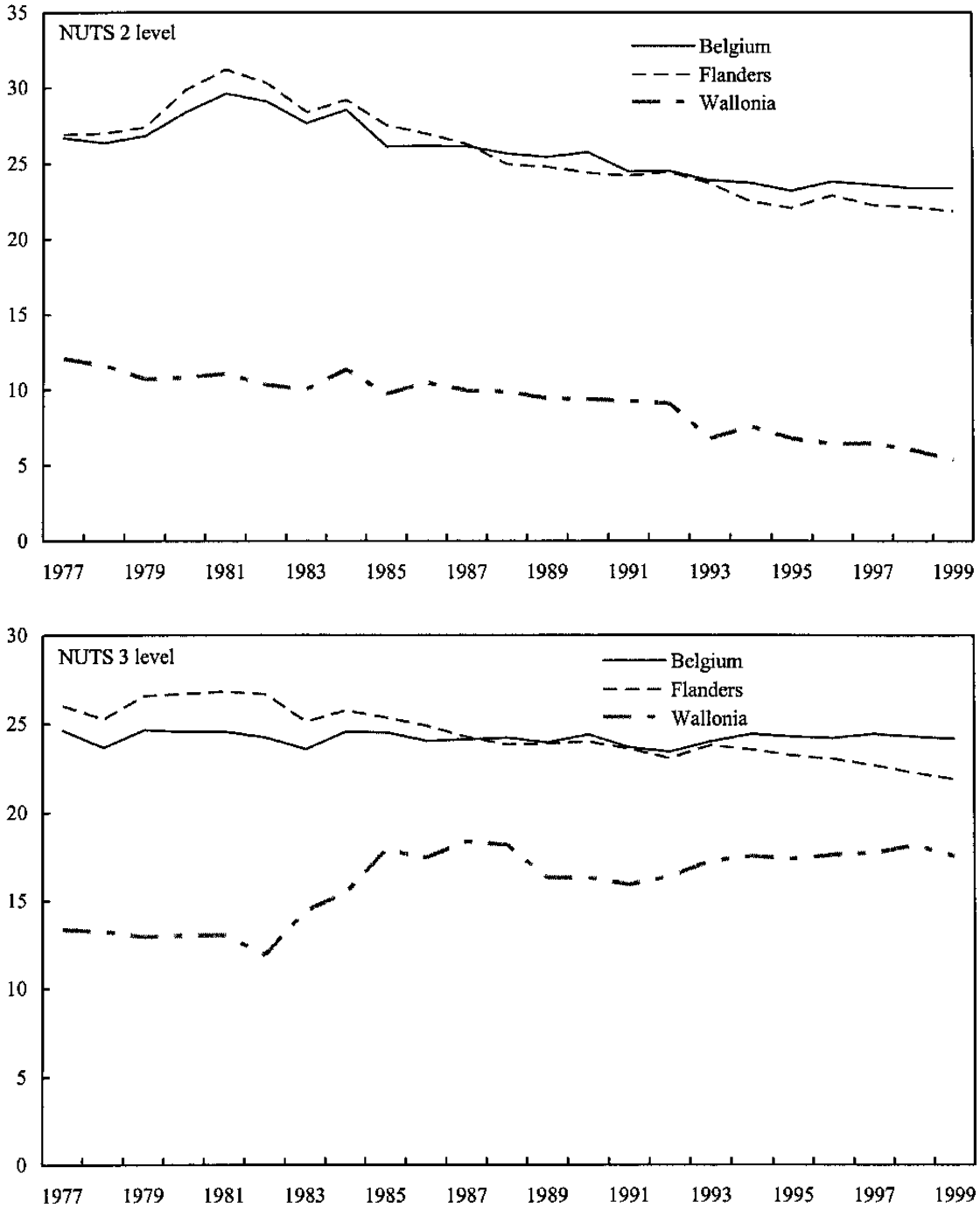
67. **The Flemish and Walloon economies have exhibited differing abilities to weather shocks**. Until the late 1970s both Wallonia and Flanders recorded similar investment rates, export growth and labor market performance. However, since then , these developments have diverged:

- **Investment** in Flanders recovered quickly, whereas investment as a share in value added never reach its pre-oil shock level in Wallonia.

- Growth in Flemish **exports** also picked up quickly, reaching new highs of close to 90 percent of regional value added (compared to some 50 percent after the first oil crisis). The level of Flemish exports is biased upwards because the major national airport and port are located there. In Wallonia, however, the recovery in exports was much delayed and faltered again in the late 80's with the result that the economy is now less outward oriented than in the early 70s.

- **Labor market** performance began to diverge (see Country Report No. 02/43 for a fuller discussion).

Figure III.5. Belgium: Indicators of Regional Variation of Real per Capita Income
(Coefficient of Variation)



Source: Eurostat Cronos database, and staff calculations.

68. **Productivity and employment rates developed in sharply different directions**. In a somewhat crude growth accounting framework, per capita GRP can be decomposed into the product of productivity, the employment rate, and the participation rate:[34]

$$\frac{GRP}{Population} = \frac{GRP}{Employment} * \frac{Employment}{Active\ population} * \frac{Active\ population}{Population}$$

As a result of the developments summarized in Table 4, productivity in Flanders is now some 14 percent higher than in Wallonia, while employment and activity rates exceed Walloon levels by 7 and 8 percent, respectively.

Table III.4. Belgium: Decomposition of Regional Growth Performance, 1979–2000

	Belgium	Flanders	Wallonia
		(In percent)	
1979-2000			
Increase in per capita GRP	45.7	50.9	38.5
productivity	31.8	31.4	29.0
empolyment rate	0.8	3.0	-1.2
participation rate	9.7	11.4	8.7
1979-1990			
Increase in per capita GRP	15.3	18.2	11.0
productivity	15.2	15.5	11.8
empolyment rate	0.1	1.7	-2.0
participation rate	0.0	0.7	1.3
1990-2000			
Increase in per capita GRP	26.4	27.6	24.8
productivity	14.4	13.8	15.4
empolyment rate	0.7	1.3	0.8
participation rate	9.7	10.7	7.3
1995-2000			
Increase in per capita GRP	7.9	8.2	6.2
productivity	0.5	1.0	-1.7
empolyment rate	3.0	2.4	4.5
participation rate	4.2	4.7	3.3

Sources: Eurostat Cronos database; and Fund staff calculations.

[34] Lack of data on regional capital stocks or investment precludes a proper growth accounting exercise. The term "productivity" in the present context thus includes the effects of total factor productivity, capital intensity, and labor productivity.

69. **Population growth patterns are, however, converging**. In contrast to the adverse relative economic performance, the rate of population decline has slowed in Hainaut—in 1990–95 the population grew—perhaps an indication of perceived improved prospects. More generally, the rates of population growth across regions have become less divergent since 1977, with Flanders again explaining most of the adjustment.[35] To the extent that regional policy tries to equalize living conditions and to the extent that internal migration behavior reflects divergent living conditions, this may reflect a positive effect of regional policy.

Searching for explanations

70. **Several factors are at play, but they cannot entirely account for the observed divergences.** Observers have suggested several explanations: initial conditions, sectoral composition, differing adjustment abilities, productivity or factor endowments, as well as geography. Unfortunately, lack of data to examine the role of these different factors prevents an econometric examination.

71. **Initial conditions, notably, different initial economic structure, are unlikely to be the full story**. The prolonged reversal of economic fortunes between regions—which has gone well beyond catch-up—suggests that more than adverse initial conditions are at work. The decline in the Walloon coal and steel sector as well as the lighter and smaller-scale industrial structure and traditionally lower wages in Flanders certainly played a role early on. The OECD (1994), has also pointed to effects related to, but not limited to, heavy industry, such as a militant unionized work force, that may have stood in the way of a more speedy adjustment in Wallonia. But these factors should have by now run their course. The shift-share analysis in Table 5 supports this assessment (see also SM/02/47). The Table shows that over the period 1987–97, Flemish value added grew 12.9 percent more than in Wallonia. Of this difference, only 5 percent is attributable to initial sectoral composition, while the majority is explained through better growth performance irrespective of the sector. Compared to Brussels, however, initial composition dominates.

Table III.5. Shift-Share Analysis of Regional Value Added, 1987–97

Flemish growth differential in regional value added	Compared to Wallonia	Compared to Brussels
Total	12.9	26.8
due to sectoral change	5.0	36.8
due to higher within-region growth	7.9	-10.1

Source: Staff calculations based on Eurostat data.

[35] Brussels continued to suffer a population decline throughout the period as residents moved to neighboring Walloon Brabant.

72. **It has been suggested that Flanders may have disproportionately benefited from its more developed ties with the Netherlands and Germany. The former boomed in the 1990s and the latter led much of European performance prior to the early 1990's.** Moreover, Flanders borders some of the better performing Dutch regions, with which it also shares a similar sectoral composition (Federal Planning Bureau, 2002). If so, the recent weaker German economy and the better performance of France should imply an improvement in the relative performance of Wallonia. This is, however, not yet clear in the data. Indeed, and notwithstanding the lack of natural boundaries, the Walloon economy is markedly different from its neighboring regions (Federal Planning Bureau, 2002).

73. **Some of the explanation lies in economic policies.** For example, in Wallonia, the larger size of the government and the correspondingly high tax burden may have hindered the private sector. Similarly, the lower share of state aid to distressed companies in Flanders may have hastened an adjustment process that, in the event, proved inevitable and leveled the playing field for the creation of new businesses. Moreover, national social policy may have contributed to insufficient regional labor mobility. While no firm data exist on mobility, available estimates indicate that, notwithstanding some increase in Wallonia, the *région* still falls short of Flemish levels (Binon et al. 1998).[36] The national unemployment and welfare system, encourages reservation wages relative to underlying productivity levels and employment opportunities in the lagging areas. This may have been compounded by the centralized aspects of the Belgian wage setting mechanism which may have hindered wage differentiation. A comprehensive recent study estimated that Walloon wages are some 7 percent lower than Flemish wages when controlling for worker and job characteristics and the business cycle, which is not sufficient to offset lower productivity levels (Laurent, 1998).

74. **Transfers across the *régions* appear to be diminishing, but, while cushioning differences in economic performance, may have reduced impetus for reforms to regional policies.** Studies in the 1970s concluded that Walloon residents benefited from a net annual transfer of close to 5 percent of GDP. More recent studies, however, indicate much smaller, though still significant, transfers (De Boeck and Van Gompel, 1998, van Rompuy and Bilsen, 1993, and KBC, 2000). These occur primarily through the social security system, reflecting differences in age distributions (pensions) and labor-market outcomes (unemployment benefits). The decline over time is due at least in part to reforms in fiscal relations between levels of government instituted by the special law on the financing of *régions* and communities of 1989 (see OECD, 1992 and Chapter I of this Selected Issues for a description). Moreover, recent decisions and fiscal devolution are likely to further limit transfers. With a more active and better-paid population, Flanders on a net basis supports the national social security system, which has resulted in pressure to decentralize it as well. One factor explaining higher central-government expenditure in Wallonia is the higher share of federal government employment stationed in Wallonia. To the extent that fiscal retrenchment

[36] A relatively small country with good travel infrastructure, like Belgium, should be well suited for mobility. More detailed longitudinal micro data would be needed to be able to assess the actual situation.

through expenditure savings has effects on the government payroll, this channel for transfers would become less prominent.

D. Concluding Remarks

75. This chapter has essentially reflected past developments. The key issue is, of course the policies to be pursued in the future. It would appear that the distinct policies applied in Wallonia and the EU objective 1 region of Hainaut have not been fully successful. However, there is so far not enough information on the types of policies pursued to perform a rigorous economic policy evaluation. Belgium managed to consolidate public finances and to keep pace with European growth, even as Flanders and Wallonia experienced quite different outcomes. As the two *régions* also pursued somewhat different economic policies, study of how these policies affected economic growth offers fertile ground. Early indications point to the benefits of policies to open the economy, focus on investment in general human capital, and create a business-friendly environment.

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