**Belgium: Selected Issues** 

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# INTERNATIONAL MONETARY FUND

# BELGIUM

## **Selected Issues**

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# Approved by European Department

# January 29, 2004

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## I. FISCAL CONSOLIDATION AND THE WELFARE STATE<sup>1</sup>

#### A. Introduction

- Over the last decade, Belgium has effected a remarkable fiscal adjustment, best 1. illustrated by the decline in its public debt from a high of 138 percent of GDP in 1993 to 100 percent at end 2003. While benefiting from an appreciable decline in interest rates, most of the underlying consolidation reflected a considerable increase in the tax burden, which has become one of the highest in the OECD. In addition, new challenges imply that the task is not yet over: potential growth has fallen behind that of other OECD countries, triggering a debate about the need to cut taxes, while population aging will soon begin to give rise to new budgetary pressures. Hence, identifying and implementing expenditure savings and measures to boost potential output become paramount.
- Against this background, this chapter analyzes the social transfer system in Belgium.<sup>2</sup> 2. Three factors warrant its closer examination: first, it is a major component of all public spending, so that meaningful expenditure savings will require a reduction in social transfers; second, in international comparison the system exhibits important idiosyncrasies, which offer insights into fruitful directions for reform; and, third, in addition to the general efficiency gains that can be expected from trimming public expenditure—and the associated lowering of tax distortions—a streamlining of the social welfare system would remove significant disincentives to work.
- This analysis suggests that there is sufficient scope to lower social transfers by some 1½ percent of GDP—above all by trimming unemployment-related spending—without putting social welfare achievements at risk. While the Belgian welfare state has produced excellent social welfare outcomes, it has done so at considerable cost. Budgetary outlays are large and in excess of most international comparators. Most of these expenditures are concentrated on work-income replacing transfers with adverse incentive effects on labor supply and, in turn, on output. Remedial measures that have relied on active labor market polices are unlikely to have helped much as indicated by their rather mixed track record in evaluations in a wide range of countries. Scaling back these policies offers scope for budgetary savings without adverse implications on labor market performance.
- In what follows, section B places the Belgian welfare state in an international context, 4. pointing out key differences with neighboring countries, the euro area, EU, and the OECD, which show that the social transfer system is both extensive and expensive. The

<sup>&</sup>lt;sup>1</sup> Prepared by Gerwin Bell.

<sup>&</sup>lt;sup>2</sup> In line with OECD convention (OECD 2002), social transfers are defined to exclude pensions (which were discussed in Zhou, 2003). Health related spending is taken up in Chapter 2.

quantitatively most important differences arise from unemployment-related expenditures. Section C examines the implications of these expenditures and their implied disincentive effects on employment. Section D critically discusses the traditional active employment policies, aimed at countering such disincentives. Section E concludes with an alternative reform proposal aimed at improving both work incentives and the fiscal position.

### B. The Belgian Welfare State in International Perspective

#### General observations

- 5. Social transfer spending in Belgium remains substantial. Following the large buildup of the Belgian welfare state between the mid-1960s and the end of the 1970s, the system was significantly cut in the late 1980s (Deleeck (2003) and Cantillon et al., 2001). Still, with social expenditure amounting to 10½ percent of GDP in 2000 (excluding age- and health related spending), Belgium records the highest level against all comparators (Figure I.1). It is worthy to note that, while Belgium's tax burden is high and social transfers are taxable, the above assessment of a generous welfare state remains valid, as social expenditures net of taxes remain at higher levels than in comparators (Adema, 2003).
- 6. The incidence of transfers is high, as they accrue to a large part of the population. At close to 60 percent, Belgium has the highest benefit dependency ratio (including old-age transfers) among all OECD countries (Figure I.2), especially for women, of whom close to 100 percent receive some kind of benefit. When controlling for low labor force participation, and conducting the analysis in full-time-equivalents, benefit dependency exceeds 100 percent, the highest level in a recent cross-country study (NEI, 1999). Moreover, transfers are fairly evenly spread over the income distribution, with the top 20 percent highest income earners still receiving one fifth of their income from transfers (as compared to 40 percent for the bottom quintile).

<sup>&</sup>lt;sup>3</sup> Unless otherwise indicated, the data are based on OECD statistics through 1998, and staff estimates for 1999 and 2000 on the basis of preliminary data obtained from the OECD and Eurostat. The comparator aggregates are calculated as unweighted averages.

<sup>&</sup>lt;sup>4</sup> In practical terms, this is the result of individuals accumulating several benefits, rather than the entire population receiving a benefit.

<sup>&</sup>lt;sup>5</sup> The elevated levels of the benefit dependency ratio have not been affected by the significant fiscal adjustment during the 1990s. Thus if there was any reduction in the breadth of social transfers, it must have been offset by the decline in employment in full-time-equivalent terms.

 $<sup>^6</sup>$  Hence, income redistribution is not substantially affected by the transfer system, but rather through taxes, with the top quintile paying  $^2$ /<sub>3</sub> of taxes, compared to only 4 percent for the bottom one (OECD 2003). See also section C.

- Replacement rates for work-income replacing transfers are uneven, but high for the low paid (OECD 2003), with net replacement rates in excess of 90 percent for lone parents and joint earners, groups which make up ¼ of all unemployed (De Lathouwer, 2003). In addition, the real value of the benefits has risen over the 1990s (Ministry of Social Affairs 2002 and Cantillon et al., 2001). As benefits are based on wages up to a certain limit at which they are capped, the faster growth of real wages over the period has resulted in a convergence of the average benefit toward the maximum level, or, in other words, a significant compression of benefits paid (Cantillon et al., 2003). This compression explains the observed retrenchment of the standardized generosity of unemployment benefits, as defined in the OECD Summary Benefit Measure (Figure I.3); still generosity remains higher than elsewhere.
- 8. Transfers are primarily geared toward income support—especially for the unemployed—with less emphasis on in-kind transfers and services (Table I.1). Unemployment-related transfers are significantly higher than elsewhere as is income support for survivors and families. In addition, family benefits through child allowances and the minimum guaranteed income have been drastically expanded between the mid-70s and mid-80s, and since then held constant in real terms. On the other hand, and perhaps reflecting the above choices to replace labor market income, spending on other contingencies and particularly in-kind services in lieu of cash is lower, and at times much lower, than in other countries.
- 9. In the aggregate, higher unemployment-related expenditure fully accounts for the difference in overall transfer spending between Belgium and its comparators (Figure I.4). Unemployment-related spending (including expenditure on active labor market policies) stands at some 4 percent of GDP, between 1 to 2 percentage points higher than in other countries. This elevated level is not the result of a particularly high unemployment rate, but rather due to high spending per unemployed (gearing ratio) (Figure I.5). This reflects the fact that the unemployment insurance system pays benefits to a large number of workers who are no longer searching for work and high active-labor-market-policy (ALMP) outlays, i.e., public expenditure on job creation.

<sup>7</sup> This pattern also implies that in due course, as more and more benefits reach the maximum statutory level and the real value of the maximum is not adjusted, the replacement rate would start to decline.

7

<sup>&</sup>lt;sup>8</sup> For consistency across countries, OECD data on unemployment rates were used.

Table I.1. Social Transfer Spending (average 1990-98)

(In percent of GDP)

	Belgium	OECD	EU-15	euro	3 neighbors 1/
				area	
Disability cash benefits	1.4	1.5	1.8	1.7	1.9
Occupational injury payments	0.4	0.3	0.3	0.3	0.3
Sickness	0.4	0.6	0.7	0.7	0.8
Disability services	0.1	0.8	0.9	0.5	0.7
Survivors benefits	2.6	1.1	1.4	1.6	1.1
Family cash benefits	2.1	1.4	1.5	1.4	1.5
Family in kind benefits	0.1	0.6	0.7	0.5	0.6
Active labor market policies (ALMP)	1.3	0.7	1.0	0.9	1.2
Unemployment	2.7	1.4	1.9	1.7	2.1
Other contingencies	0.3	0.5	0.4	0.4	0.6
Memorandum items:					
Cash benefits	9.7	6.6	7.8	7.6	8.0
in-kind benefits	0.2	1.3	1.6	1.1	1.3
income-replacing benefits 2/	7.5	3.9	4.8	4.8	4.6

Source: OECD

10. Given the elevated level of unemployment-related outlays, most of the remainder of the analysis will focus on options for reform in this area. This does not imply that there are no possibilities for savings options in other transfer spending—exactly the opposite is suggested by the very high incidence for all social transfers—but instead that savings are probably easier identified in unemployment transfers. First, however, and to provide further motivation for reform, the economic and social implications of the welfare state are reviewed.

### C. Implications of the Welfare State

11. Belgium has low poverty rates and high rates of income security, with thus favorable chances of societal participation for groups at risk from poverty. While any welfare system implies inherent and inevitable disincentives for work (Moffitt, 2000), some institutional aspects in Belgium accentuate these effects. Consequently, the employment performance of the economy has been lackluster, dampening potential output, and contributing to regional economic discrepancies.

#### **Social Indicators**

12. Welfare indicators are favorable. The general poverty level in Belgium is quite low by international comparisons. Any remaining deficiencies are likely limited to small groups, e.g., old people (65 and older) and the 18-24 year olds who appear to face a higher poverty

<sup>1/</sup> France, Germany, and Netherlands.

<sup>2/</sup> Comprising survivors, family-cash, and unemployment benefits.

risk (Forster, 2000). Notwithstanding some retrenchment in transfer spending over the 1990s (see above), the overall poverty rate was further reduced by almost 3 percentage points to some 7 percent by 2000, one of the lowest rates in the OECD, and, moreover, in contrast with mounting poverty in other countries. Finally, regional imbalances are smoothed, with the poverty rate in Wallonia—an area with considerably higher unemployment—only slightly in excess of the rest of the country (De Lathouwer, 2003).

13. Turning to the distribution of income, Belgium has a relatively low Gini coefficient, even though it has increased since the 1980s. Moreover, the share of low income in total has been drastically cut since the mid-1980s, with low-income incidence at the lowest level in the OECD. Not surprisingly, given the widely spread transfer system, income redistribution is mostly effected through the tax system rather than transfer payments (OECD 2003) with the tax level in turn being more important than the underlying progressivity of the tax rates.<sup>9</sup>

### **Employment Performance**

- 14. Social transfer payments require revenue-raising operations which in general introduce distortions and losses in economic efficiency (Auerbach and Hines, 1999) and Krueger and Meyer, 2002). The most important of these distortions affects the labor supply decision, as it is impossible to tax leisure (see also Lucas, 2003). The empirical growth literature has accordingly identified the tax wedge as the most problematic aspect. In line with its high revenue ratio, Belgium has the highest tax wedge in the OECD (Figure I.6), 10 notably higher than France, where the tax wedge has been singled out as the key factor in explaining lower per capita income as compared to the US (Prescott, 2003). For Belgium, similar results are implied by Drèze and Modigliani (1981), Daveri and Tabellini (2000) and Konings and Roodhooft (1997). 11
- 15. The transfer system—in addition to its indirect adverse effects through the need to raise revenue—also contains significant direct disincentives to work. Generous welfare transfers, particularly to specific groups result in higher reservation wages and lower

<sup>9</sup> The tax increases in the early part of the 1990s are the major reason for the further equalization of the income distribution over the period. For the currently phased-in tax cuts, this finding suggests that if there is a desire to keep income redistribution at its current scope, a greater measure of progressivity would need to be introduced into the tax-benefit system (see also the discussion below).

<sup>10</sup> This finding holds for various definitions of the tax wedge used by the OECD. Figure I.8 depicts the average tax wedge, including employer social security contributions.

<sup>&</sup>lt;sup>11</sup> A long-run labor demand elasticity of -1¾, estimated by Konings and Roodhooft (1997) corresponds to the estimate of -2 by Drèze and Modigliani (1981). Daveri and Tabellini (2000) whose cross-country sample includes Belgium also report substantial elasticities.

participation.<sup>12</sup> Thus, economic efficiency gains may be generated if such transfers are cut back and incentives for work strengthened.

16. The Belgian employment rate, at some 60 percent, is among the lowest internationally and, based on the OECD definition, Belgium records the highest non-employment rate of working-age households (Figure I.7). The overall employment rate is pulled down by low participation of the young and old, and overall low employment rates in the Walloon region (Table I-2).

Table I.2: Employment Rates by Age Group, 2002 (In percent)

	Belgium	Flanders	Wallonia	EU-15
15-64 years old male female	59.6 68.1 51.1	63.1 71.4 54.6	55.6 64.9 46.3	64.2 72.9 55.5
15-24 years old	28.6	33.3	22.4	40.5
55-64 years old	25.7	24.7	25.7	39.8

Source: Smets (2003)

- 17. These patterns are consistent with the particularly large reservation wages that transfers provide to groups with the lowest participation rates.
- After an initial 9-month waiting period, workers can qualify for unemployment benefits even without a formal work history.
- Unemployment benefits are in principle open-ended, conditional on job-search requirements. 13 With more than half of all unemployment being in excess of one year,

<sup>12</sup> It should of course be noted that there are also other factors at play, for example institutional aspects, like minimum wages, the collective labor bargaining regime, or employment-protection legislation.

<sup>13</sup> Some exceptions to the generally open-ended system were introduced during the 1990s. Most importantly, benefit duration for unemployed who are not considered to be the heads of households can be limited to 1.5 times the length of the average unemployment spell, taking account of the sex, age and residence of the unemployed. For example, the limit for women stretches from 2½ years (under 36 years, residing in Ostend) to 8 years (over 45 years, and residing in Mons) (De Lathouwer, 2003).

Belgium records one of the highest incidences of long term unemployment among OECD countries. <sup>14</sup> Attempts to mitigate the disincentives from open-endedness of benefits called for strict sanctions, e.g., with an unemployed's failure to show up for an interview at the public job search agency automatically triggering a temporary loss of benefits, and repeated failure resulting in the permanent loss of all benefits. However, in the absence of an alternative social safety net for the unemployed, these sanctions have not been enforced—helped by the fact that the regional job-search agencies need to report any offenses to the federal unemployment insurance before the latter can stop benefit payments. A modification introduced in 2001 which limits the sanctions and was thus hoped to trigger more actual enforcement, has also failed to meet expectations.

- There are generous early-retirement provisions. While the traditional "prepension" system of early retirement payments is being phased out, a new generous scheme for "older unemployed" has been instituted and the overall number of those on early retirement schemes has slightly increased with the equivalent of 6 percent of the labor force in early retirement in 2000. Belgian public spending on early retirement, ½ percent of GDP in 2000, remained by far the highest in the OECD—more than three times the average of the euro zone or its 3 neighboring countries (Figure I.8). Meanwhile, the average retirement age—53 into the old-age unemployment scheme—continued to fall.
- Differential replacement rates imply disincentives for labor supply for the low skilled. Unemployment benefits are capped at a fraction of the average wage, thus providing lower replacement rates for higher income earners, where the impact of replacement incomes on the reservation wage rapidly diminishes. Indeed, survey evidence shows that low wage unemployed are not interested in finding a job, and large employment traps have opened up (D'Addio et al., 2002). Accordingly, a considerable share of the unemployed has never worked (De Lathouwer, 2003). 15
- Benefit levels do not adequately reflect regional productivity variations, such that the transfer system promulgates the adverse effects of limited wage flexibility. There is evidence that the substantial differences in regional productivity (c.f. Bell, 2003) are only insufficiently incorporated into actual wages. Since wages form the basis for the determination of unemployment benefits, a larger difference between reservation wages and labor-market clearing equilibrium wages is implied in geographic areas with lower productivity and, thus, higher unemployment than elsewhere in the country. Moreover, open-

<sup>&</sup>lt;sup>14</sup> In 2000, long-term unemployment accounted for 56 percent of the total, compared with 32 percent in the OECD and 44 percent in the euro area.

<sup>&</sup>lt;sup>15</sup> For example, one third of all unemployed women have never worked.

<sup>&</sup>lt;sup>16</sup> Laurent (2001) estimates that wages in Wallonia are some 7 percent lower than in the rest of the country.

ended benefits prevent this discrepancy from adjusting with unemployment duration. These observations are consistent with the persistent unemployment in Belgium's southern areas—reflected, for example, by a Walloon unemployment rate of 10 percent in 2001, compared to 4 percent in Flanders. In Flanders, consistent with the less binding reservation wages, participation is higher, even among the traditional problem groups, except for the old, where generous early retirement provisions are at play.<sup>17</sup>

• Other traditional problem groups do not show adverse employment records. Notably the employment rate of the disabled is relatively higher in Belgium, as compared internationally, which again is consistent with the relatively less generous and broad benefit entitlements (especially as regards eligibility) in Belgium (OECD, 2002).

### D. Employment Policy

- 18. Resolving Belgium's poor employment performance has been on the policy agenda for some time. However, the link between the functioning of the labor market and the welfare system has so far not been systematically focused on, with, instead, greater reliance being placed on active remedial measures in the form of additional expenditure on ALMP, see Annex I.1. There are several noteworthy aspects.
- Belgium has consistently outspent most international comparators on ALMPs. In 2000, the last year for which comparable data are available, Belgium spent some 1½ percent of GDP on ALMPs, compared to spending of less than 1 percent of GDP in the EU, the euro area, and the OECD, though Belgian spending is in line with its closest neighbors (Figure I.9). Moreover, this spending level has remained fairly constant—and in excess of most comparators—since the beginning of the sample in 1985.
- ALMPs in Belgium also reach a larger segment of the labor force, but are likely spread thin. With a large volume of different schemes—220 were identified in the most recent audit of such policies (CSE, 2003)—ALMP participation exceeds unemployment (FPB, 2003). At the same time, spending per participant is significantly lower.
- The composition of Belgian ALMPs has undergone significant changes. While expenditure on public employment services has remained largely flat over the 1985-2000

<sup>17</sup> Other institutional factors aggravate the geographically differentiated employment effects. Most importantly, collective wage agreements have traditionally set sectoral minimum wages considerably in excess of the national minimum wage, thus serving to impede a low-wage job market even if reservation wages from unemployment benefits were not binding.

<sup>&</sup>lt;sup>18</sup> These observations are based on annual OECD data on participant's inflows into ALMPs. To the extent that ALMPs in other countries last longer than in Belgium, these results would need to be nuanced.

period, there have been some increases in expenditure on training—concentrated on training for already employed—and a slight decline in ALMP spending for the handicapped. The most pronounced change, however, was the 50 percent cut of public employment programs, to ½ percent of GDP, while expenditure on private sector wage subsidies grew by an equivalent amount.

• The mix of Belgian ALMPs is different from international comparators. On an international scale, the last 15 years have witnessed a decline in the relative importance of public employment search assistance and training while spending on problems groups (such as youth and the disabled) gained prominence. Belgium, on the other hand, has continued to place considerable importance on public employment programs, while emphasizing employment subsidies to a significantly larger degree than elsewhere (Figure I.10).

### Evaluating ALMP

- 19. With few evaluations of Belgian ALMPs (Cockx, 2003, Cockx and Ridder, 2001, Cockx et al., 1998 and Lopez-Novella, 2003) it is useful to survey the relevant European empirical evaluation literature to distill some findings that can be expected to generalize into the Belgian context. As economic social policy evaluation was pioneered for ALMPs policies—notably the study of different training schemes in the US (see Heckman et al., 1999)—a vast body of literature is available and methodological issues to be addressed in any evaluation are well known (Box I.1).
- 20. In general, and even with the methodological caveats, the numerous empirical evaluations permit a fairly robust assessment that the case for ALMP is not a particularly strong one. Table I.3 summarizes the key findings of evaluations of European ALMP. <sup>19</sup> No matter which evaluation method is utilized, the majority of studies fails to find any statistically significant beneficial effects of ALMP. Some exceptions to this rule relate to carefully targeted and limited interventions, schemes that combine on-the-job training with extensive monitoring—particularly youth measures—as well as subsidy schemes. On the other hand, the record for other training programs and even employment programs is poor.
- 21. In Belgium, ALMPs appear to have focused on the less useful measures. The high incidence of programs over a large group of participants in Belgium contrasts with the highly targeted and involving programs that appear to offer some benefit, especially on-the-job training (Gerfin and Lechner, 2002). In addition, the record of public employment programs, on which still ½ of one percent of GDP is spent in Belgium, is particularly poor from the

<sup>19</sup> For an extensive review of the findings in the US literature, see Heckman et al., 1999.

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#### **Box I.1: The Evaluation Problem**

Assume that an individual i's participation in an ALMP program is captured by the indicator variable D, such that if D=1 an individual participates in a program, or D=0, if not. In the language of the evaluation literature, D=1 indicates "treatment" (i.e., participation in ALMP, e.g., a training program). Assume further that the policy maker is interested in the outcome variable Y (e.g., earnings or employment status), with the treatment status formally being captured in a suffix. In order to evaluate the impact of an ALMP for an individual i, one would want to know:

$$\Delta_i \equiv Y_{1i} - Y_{0i}$$

Accounting for the fact that the treatment will not yield the same result for all workers, these individual treatment effects would need to be aggregated into a population average.

Two fundamental problems arise at this stage, and are indeed inherent in evaluating any social program. The first stems from the fact that one cannot observe the same individual contemporaneously in two states, having benefited from a program and not having benefited from a program, i.e.  $Y_{1i}$  and  $Y_{0i}$  do not exist at the same time. The literature has developed several approaches to overcome this problem by constructing a counterfactual, each with its own strengths and weaknesses (for a fuller discussion of this critical issue see Heckman et al., 1999 and Kluve and Schmidt, 2003). The second set of problems arises from the possibility that in an economy, any individual effect can easily be offset, or overturned, on a more aggregate level. For example, workers who find employment after participating in ALMP may have been hired anyway (deadweight loss), or they may be replacing other workers (substitution effect). In addition, the cost of financing ALMPs may result in adverse general equilibrium effects, such as loss of employment from higher taxes, that are not captured in the evaluation sample.

The following methodological approaches may be distinguished:

- Microeconometric studies seek to explicitly model the individual choice to participate in an ALMP. Hence, they condition the participation in an ALMP on a set of observable variables X. With this information, the bias  $B(X) = E(Y_0 | X, D = 1) E(Y_0 | X, D = 0)$  can be eliminated. The most well-known of these problems arise from sample selection effects (i.e. an individual's decision to participate in the training has an effect on the measured outcome, e.g. if more motivated and capable workers signed up for training programs). A large variety of estimators has been developed to control for this effect, attempting to explicitly allow for the unobserved heterogeneity of participants. In principle, these estimates could uncover true underlying structural parameters (i.e., determinants of labor supply) and thus generalizable information about the benefit of ALMP on different potential treatment populations. However, essentially for data reasons, these studies typically cannot identify deadweight, substitution, or general equilibrium effects.
- The experimental approach seeks to randomly assign individuals into treatment and control groups, such that the unobservable effect of nontreatment of program participants can be estimated by the nonparticipant population outcomes:  $E(Y_0 | D=1) = E(Y_0 | D=0)$ . This assumption obviates the need of cumbersome statistical corrections to uncover the treatment effect, which is now identified through the difference in means between the two groups. On the other hand, even an ideal initial assignment would, over the course of a lengthy ALMP treatment be subject to attrition out of the treatment group. To the extent that this attrition is based on unobservable variables, a bias in the estimated treatment effect—that would now be based only on those willing to continue participation—may well arise. Moreover, the experimental results would strictly obtain to only to the experiment and population in question, and would not be transferable to other treatment populations. Finally, no structural analysis could be performed, as no "deep" or fundamental behavioral parameters would be identified. As is the case for microeconometric studies, it is unlikely that these studies would uncover any deadweight or substitution effects.
- Macroeconometric studies focus directly on the population averages, interpreting different time periods and/or countries as different outcomes of one basic experiment. They do not concern themselves with the details of the individual ALMP treatment effect on individuals, thus offer little hope of revealing any insight at all into key structural questions of the individual labor supply decision. In addition, the links between ALMP (typically individual specific programs) and the aggregate variables (e.g. unemployment) are highly tenuous, subject to simultaneity bias or reverse causality (e.g., spending on training might increase when unemployment rises, with no causality running between the former and the latter), and thus require strong and untestable assumptions to identify any effect. Macro studies would, however, be able to estimate aggregate deadweight and substitution effects.

		Training Programs Overall effect	·		Youth measures Overall effect		Em	ployment programs Overall effect	
<u> </u>	Negative	No effect	Positive	Negative	No effect	Positive	Negative	No effect	Positive
Microeconometric studies	Regner (2001), earnings	Larsson (2000), annual carning	sKluve et al. (1999), employment	Dolton et al. (1994a); unemployment hazard, net of time in training 8/	Larsson (2000); earnings	Jenssen (1999), unemployment duration	Kluve et al. (1999), employment	Payne et al. (1996); hourly wages 10/	
	Lechner (2001); employment probability, earnings	Resum and Torp (2001), earnings	van Ours (2001); job finding rate		Brodaty et al. (2001); employment	Gerfin and Lechner (2002), employment	Gerfin and Lechner (2002), employment	Ridder (1986); unemployment hazard	
	Edia (1988); weekly earnings	Bell et al. (1999), productivity	Brodaty et al. (2001), employment		O'Connell and McGinnity (1997); employment rate, wage 4/	Breen (1991), employment rate 4/	Ridder (1986); employment hazard 5/	•	
	Andersson (1993); annual carnings	Gerfin and Lechner (2002), employment	Zweimüller and Winter- Ebner (1996); unemployment		de Koning (1991), unemployment rate 6/	Main (1985); employment rate 8/	Cockx and Ridder (2003); employment		•
		fensen et al. (1993); unemployment	Bonnal et al. (1997); unemployment hazard, employment hazard		Main and Raffe (1983); employment rate 7/	Whitfiled and Bourlakis (1991); employment rate 8/	bazard		
		Westergard-Nielsen (1993); hourly wages 2/	Kraus et al. (1997); employment hazard		Whitfiled and Bourlakis (1991), hourly wage 8/	Main and Shelly (1990); employment rate 8/			
		Thierry and Sollogub (1993); employment hazard	O'Connell and McGinnity (1997); empolyment rate, wage		Main (1991); employment rate 9/				
		Breen (1991), employment rate Ridder (1986); employment hazard, unemployment hazard	de Koning (1991), unemployment rate Björklund (1994); employment rate, hourly wage		Green et al. (1996); hourly wage 8/ Dolton et al. (1992); employment rate, hourly wage 8/	,			
		Cockx (2003); unemployment hazard	Axelsson (1989); annual carnings		Dolton et al. (1994b); hourly wage 8/				
		Ackum (1991); hourly wages	Payne et al. (1996); employment rate						
		Harkman et al. (1996); employment rate, hoarly wages	i						
		Torp et al. (1993); employment		•					
		Payne et al. (1996); hourly wages							
II. Experimental studies									
III. Macro studies 1/					- · · <u>· · · · · · · · · · · · · · · · ·</u>		OECD (1993); unemployment 11/		

<sup>1/</sup> Where possible, the results report the employment effect corrected for participation in ALMP programs, as calculated by Calmfors et al. (2002).

<sup>2/</sup> Positive effect for unskilled male workers.

<sup>3/</sup> Positive employment hazard for workers with diploma.

<sup>4/</sup> Measure evaluated was temporary employment program in Ireland.

<sup>5/</sup> For older workers, no effect found for younger workers.

<sup>6/</sup> Measure evaluated was on-the-job training.

<sup>7/</sup> Measure evaluated was training, positive effect found for females.

<sup>8/</sup> Measure evaluated was training.

<sup>9/</sup> Measure evaluated was training, positive effect found for "disadvantaged" youth,

<sup>10/</sup> Measure evaluated was subsidized employment in public and non-profit sectors.

<sup>11/</sup> Interaction effect between GDP and public employment expenditure.

<sup>12/</sup> Positive effect for long-term unemployment.

<sup>14/</sup> Effect found in 1990s; no effect found in 1980s.

Table I.3. Key Results of Evaluations of European Active Labor Market Policies (concluded)

	Employment subsidies Overall effect			Job search assistance Overall effect			Summary ALMP measure Overall effect			
	Negative	No effect	Positive	Negative	No effect	Positive	Negative	No effect	Positive	
1. Microeconometric studies	Kluve et al. (1999), employment	Bell et al. (1999), productivity	Gerfin and Lechner (2002), employment	Dolton and O'Neill (1996); unemployment hazard	Björklund (1993); unemployment hazard		Sianesi (2001); employment probability	<del></del>		
	,	van Ours (2001); job finding rate	Rosholm (1999); employment hazard							
		Bonnal et al. (1997); unemployment hazard, employment hazard 3/								
					•	•				
•							•			
	• •									
·		•						•		
	. <u></u>				· .					
II. Experimental studies					van den Berg and van de Klaauw (2000); unemployment hazard	r Björklund and Regner (1998); employment rate				
						White and Lakey (1992); employment rate				
III. Macro studies 1/							Belimann and Jackman (1996); employment	OECD (1993); unemployment Forslund and Krueger (1994); unemployment	Layard et al. (1991); unemployment Heylen (1993); unemployment	
·								Bellmann and Jackman (1996); unemployment	Zetterberg (1993); unemployment	
						. : 	• •	Jackman et al. (1996); unemployment 12/ Scarpetta (1996); unempolyment	Nickel and Layard (1999); unemployment Blanchard and Wolfers (2000); unemployment	
	a.							Etmeskov et al. (1996); unemployment	Estevao (2003); employment	

perspective of moving participants into private-sector jobs (Cockx and Ridder, 2001).<sup>20</sup> Experimental studies point to the benefits of job search assistance, which are also relatively underdeveloped, but, as indicated in Box I.1, experimental results may not easily generalize.

22. It also appears that the regional differences in ALMPs are not well tailored to the specific labor market problems in different geographic areas. The Belgian regions and communities are pursuing a different mix of ALMP (Table I.4). The high share of training programs in Wallonia and the German community appears at odds with the observation that reservation-wage and minimum-wage unemployment are important, which would preferably be addressed by wage subsidies. In contrast in Flanders, the less problem-group specific ALMPs and the larger share of wage subsidies are not generally in tune with the Flemish labor market. Finally, coordinating a large volume of policies is reflected in high overhead costs in the smaller areas of Brussels and the German Community.

Table I.4: Share of Specific ALMP Programs, 2002 1/

	Wallonia	Flanders	Federal Government	German Community	Brussels
	(5	Shares in pe	rcent, unless oth	nerwise indicate	ed)
Training measures	54.8	29.2	15.8	48.4	27.7
Classroom training	28.6	16.7	6.3	22.6	2.8
On-the-job training	14.3	8.3	6.3	12.9	13.9
Search training	11.9	4.2	3.2	12.9	11.0
Employment subsidies	11.9	22.9	30.2	6.5	19.4
Public employment programs	21.4	10.4	12.7	12.9	16.7
Public employment services	2.4	0.0	1.6	3.2	11.1
Coordinating measures	11.9	18.8	4.8	22.6	25.0
Total number of ALMP measures	42	48	63	31	36

Source: Staff calculations on the basis of CSE (2003).

<sup>1/</sup> Shares express the number of specific programs in relation to all programs.

<sup>&</sup>lt;sup>20</sup> A large part of such employment programs consist of workfare arrangements for welfare recipients. Cockx and Ridder (2001) show that the local welfare agencies that were running these schemes selected the most employable candidates from the welfare pool into workfare. Such workfare took care of certain local government services and was paid for by the employment agency. For the welfare participants the scheme was attractive because it resulted in higher unemployment benefits when the workfare program was left after one year. In total, the scheme was found to significantly lower the exit rate from unemployment.

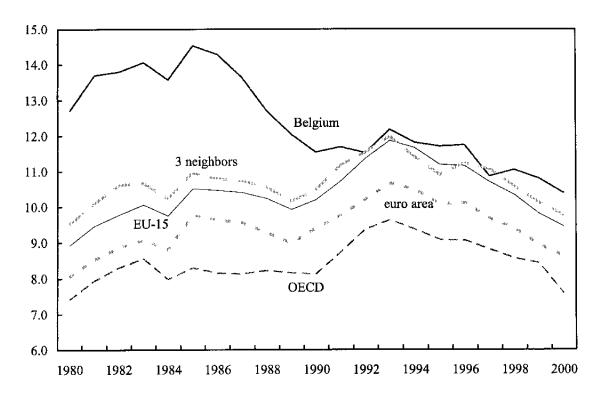
23. While there is some evidence that targeted subsidies raise employment (Estevao, 2003) they are not problem-free. Belgium has effected a shift from other ALMPs to such subsidies over the last 10 years, particularly by promoting low-wage employment through cuts in social security contributions. This may have improved the performance of ALMPs, but the subsidies to the low-wage earners also reflected concerns to limit the adverse incentive effects from the concurrent boost of social benefits (Cantillon et al., 2002 and De Lathouwer, 2003). In addition these targeted cuts have also created "wage" traps at slightly higher levels of the income distribution—where the reductions run out—and the highest marginal tax rates emerge (Figure I.11). Finally, these subsidies also entail new (tax) expenditures for the budget. Against this background, a general tax cut, financed through expenditure cuts—centered on the least effective transfer programs—holds promise.

## E. Concluding Remarks: An Alternative Approach—Scaling Back the Welfare State

- 24. Unemployment-related transfers in Belgium are appreciably higher than in a wide sample of comparator countries. Considerable budgetary savings on the order to  $1\frac{1}{2}$  2 percent of GDP could be realized by:
- a. sharply curtailing early-retirement provisions: this should yield steady state savings of ½ of one percentage point of GDP;
- b. phasing out open-ended unemployment benefits; e.g., ending unemployment benefits after one year, as is currently discussed in Germany and the Netherlands, would save up to 1 percent of GDP in unemployment insurance transfers—with these saving being partially offset by the need to increase minimum income payments, in particular if other structural distortions like elevated sectoral minimum wages are not redressed;
- c. substantially scaling back ALMPs through phasing out public employment programs and halving training expenditures: savings could amount to 3/3 of one percentage point of GDP;
- d. additional substantial savings could result from a better targeting of transfer payments to a reduced number of beneficiaries, their quantification is, however, beyond the scope of this paper.
- 25. Such savings would be key in underpinning the twin government targets of fiscal consolidation and tax cuts, while vitalizing the labor market. Savings of 1½ percentage point of GDP would lower primary spending by an equivalent amount and, if implemented over a four-year horizon, would reduce real primary spending by almost 1 percent per year. Moreover, flanked by additional reforms of labor market institutions, benefit reform would induce considerable additional employment based on the empirical work surveyed above. As this employment would primarily benefit currently marginalized labor market groups, the increased supply would contribute to economy-wide wage moderation and the preservation of competitiveness.

- 26. What about social welfare? It is difficult to unambiguously predict the actual effect of the proposed reforms. A standard neoclassical model would show that benefit recipients who after a cut in benefits would have to accept work—and thus forego leisure—would be worse off. Society as a whole, however, would of course benefit from a reduction of the deadweight loss associated with low participation, and this societal gain may be redistributed to the previous benefit recipients in ways that eschew disincentives to work (e.g., through general tax cuts). Moreover, the adverse effect on the welfare of previous benefit recipients may be less pronounced in practice, particularly if there are nonmonetary social benefits from work socialization or if burdensome administrative control requirements are reduced.
- 27. There is also a fairness dimension, given that the current targeted wage subsidies cause the highest marginal effective tax rates for some groups of low wage earners. As regards income distribution, this outcome is undesirable. Moreover, with the current tax cuts likely resulting in less redistribution—and given the need to generally lower marginal tax rates—removing the highest marginal taxes on low earners would undoubtedly be helpful in limiting a rise in inequality.

Figure I-1. Belgium: Social Expenditure, 1980-2000<sup>1/</sup>
(In percent of GDP, excluding spending on old-age and health related spending)



Source: OECD and Eurostat.

1/ The "3 neighbors" are France, Germany and the Netherlands

70 in percent Belgium 60 50 3 neighbors euro area 40 EU-15 OECD 30 20 10 0 1998 1980 1982 1988 1984 1986 1990 1992 1994 1996 1.2 1.0 in full time equivalents, 1999 0.8 0.6 0.4 0.2 0.0 USA JPN NLESP DNK GBR AUT DEU SWE FRA BEL

Figure I-2. Belgium: Benefit Dependency Ratios, 1980 - 1999

Sources: OECD and NEI (1999).

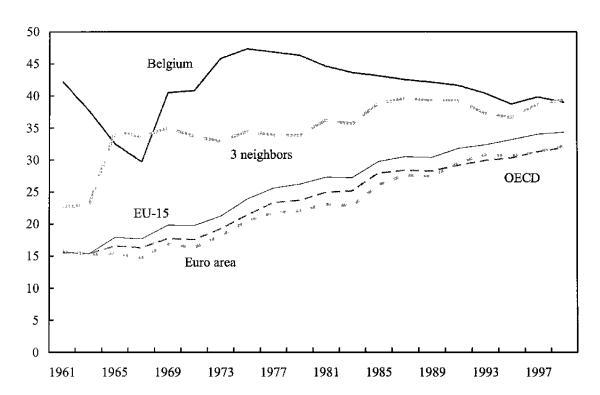
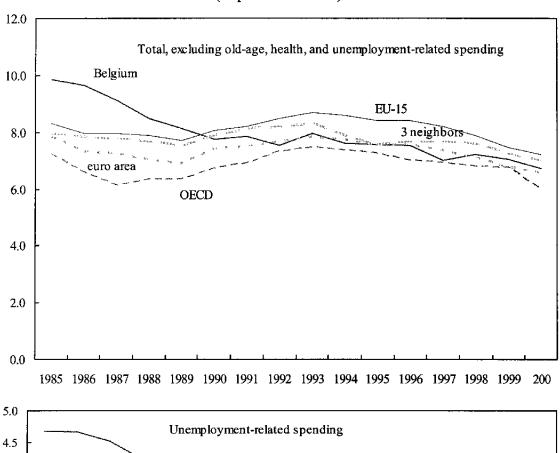


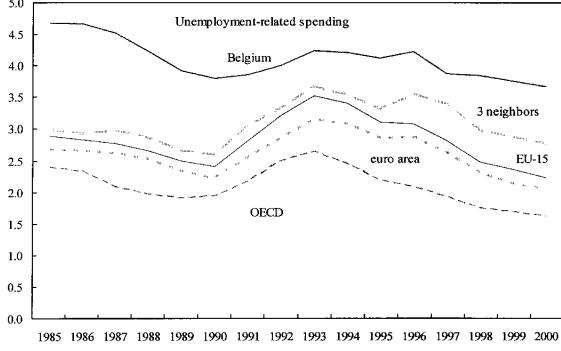
Figure I-3. Belgium: OECD Summary Benefit Measure, 1979-99 1/

Source: OECD (2002).

1/ Defined as the average of the gross unemployment benefit replacement rates for two earnings levels, three family situations, and three durations of unemployment.

Figure I-4. Belgium: Composition of Social Transfers, 1985-2000 (In percent of GDP)





Sources: OECD and Eurostat.

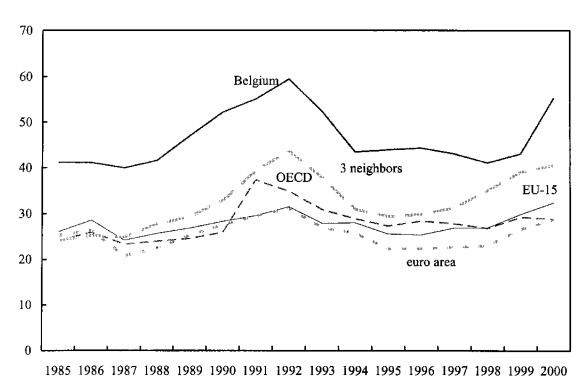
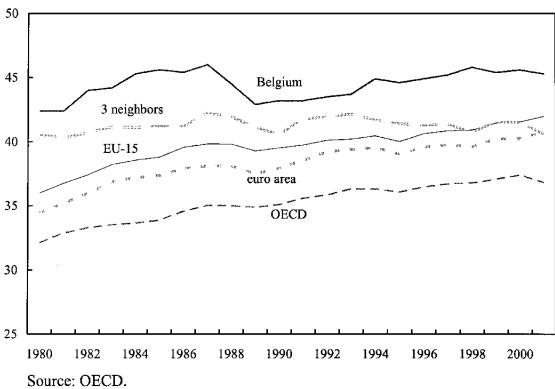


Figure I- 5. Belgium: Gearing of Unemployment-Related Spending, 1985-2000 1/

Sources: OECD and Eurostat, and staff calculations.

1/ Gearing is defined as the share of unemployment-related spending to GDP divided by the OECD defined unemployment rate.

Figure I-6. Belgium: Tax Wedge, 1980-2001 (In percent)



EU-15

3 neighbors

euro area

Figure I-7. Belgium: Non-Employment Rates for Working-Age Households (In percent)

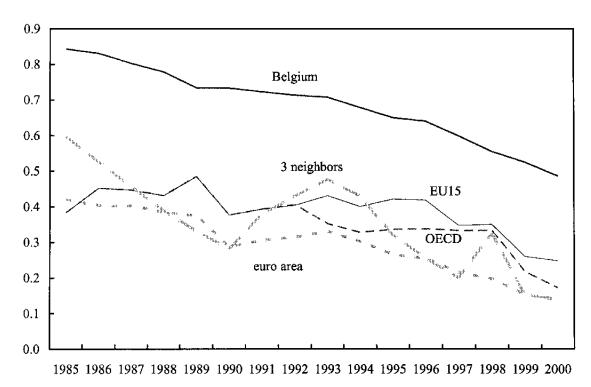
Source: OECD.

Belgium

OECD

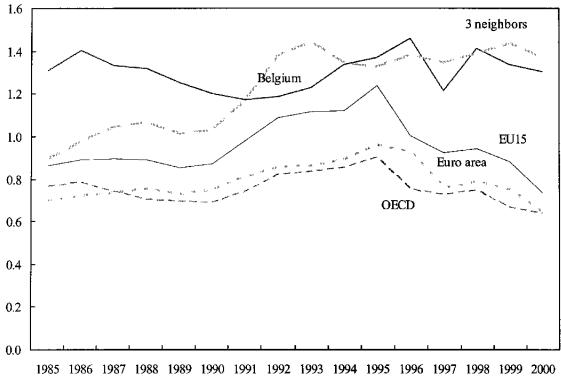
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Figure I-8. Belgium: Public Expenditure on Early Retirement, 1985-2000 (In percent of GDP)



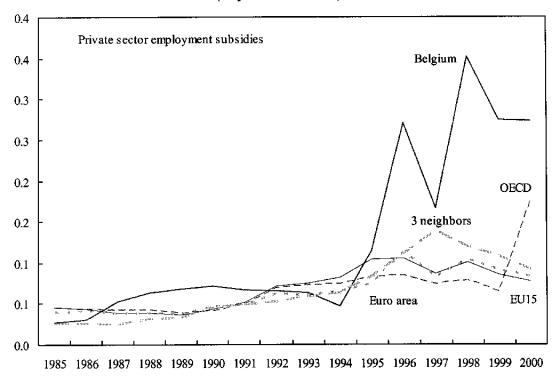
Source: OECD.

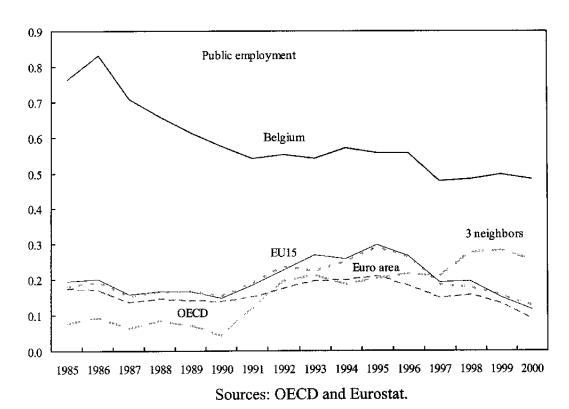
Figure I-9. Belgium: ALMP Spending, 1985-2000 (In percent of GDP)



Source: OECD.

Figure I-10. Belgium: Composition of ALMPS, 1985-2000 (In percent of GDP)





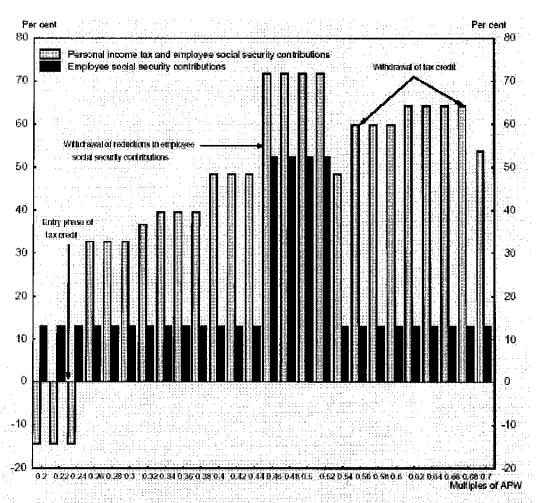


Figure I-11: Belgium: Marginal Effective Tax Rates

Source: OECD (2003)

- 29 - ANNEX I.1

#### Active Labor Market Policies

ALMP generally seek to boost the labor market chances (especially earnings and employability) of so called problem groups. Depending on the diagnosis of the unemployment problem, different strands of ALMP may be pursued (c.f. Calmfors, 1993 and OECD, 1993).

- Search (frictional) unemployment could be lowered by measures to improve workers' and employers' information about each other, such as public job search agencies, and targeted efforts to help workers search better.
- Structural unemployment may be addressed through government programs to redress the mismatch between labor supply and demand. For example, training measures could help workers develop the skills required by employers, or mobility assistance could provide incentives for workers to move to geographic areas with excess labor demand.
- Minimum-wage unemployment—unemployment that arises when, for legal or collective bargaining reasons, the wage cannot fall to a level that would clear the labor market—could be addressed through measures to lower the effective minimum wage. The same channel would work for replacement rates—and thus reservation wages—that are too high. Measures in this regard are wage subsidies, e.g. through targeted cuts in nonwage labor costs to the employer, e.g. lower social security contributions.
- Aggregate demand induced unemployment, would call for macroeconomic stabilization policies. However, direct deficit-financed employment programs in the public sector would also be helpful in this context.

These different motivations call for different policies, and it is important to realize that ALMP measures can have different effects, depending on the nature of the unemployment problem. For example, increased training will do nothing to lower frictional unemployment, and its effects on minimum-wage unemployment are also far from clear. Similarly, job search agencies will not be able to redress skill mismatches or binding minimum wages, while public employment may e.g. worsen frictional unemployment, as job seekers could hold out for a safe job in the public sector.

In the first place, one would not expect any effect. However, in a collective bargaining model, where the union sets the minimum wage taking into account the cost of job loss (Layard and Nickel, 1991), an effect might arise: the newly trained may increase labor supply, and thus the expected duration of unemployment after a job loss, which in turn increases the expected cost of a job loss, and would in the end need to be resolved through lowered wages. Nevertheless, to the extent that the newly trained are not perceived as potential replacements, as is likely, given their lack of experience, this channel is probably not very important, in which case measured employment may actually increase (i.e., by the newly trained who would not find a job).

### References

- Ackum, S., 1991: Youth Unemployment, Labor Market Programs, and Subsequent Earnings, Scandinavian Journal of Economics, Vol. 93, No. 4, pp. 531-43.
- Adema, W., 2003: Net Social Expenditure, OECD, mimeo.
- Andersson, H., 1993: Choosing among Alternative Nonexperimental Methods for Estimating the Impact of Training: New Swedish Evidence, Swedish Institute for Social Research, mimeo.
- Auerbach, A. and J. Hines, 1999: Taxation and Economic Efficiency, in: Auerbach, A. and M. Feldstein (eds.) *Handbook of Public Economics*, Volume 3, Chapter 21.
- Axelsson, R., 1989: Svensk Arbetsmarktnadsutbildning, Umea University, mimeo.
- Bell, G., 2003: Regional Economic Development in Belgium, Belgium: Selected Issues, IMF Country Report No. 03/50.
- Bell, B., Blundell, R, and J. van Reenen, 1999: Getting the Unemployed Back to Work: The Role of Targeted Wage Subsidies, *International Tax and Policy Finance*, Vol. 6, pp. 339-360.
- Bellmann, L. and R. Jackman, 1996: The Impact of Labor Market Policy on Wages, Employment and Labor Market Mismatch, in Schmid, G., O'Reilly, J. and K. Schömann (eds): *International Handbook of Labour Market Policy and Evaluation*, pp. 89-114, Edward Elgar, Aldershott.
- Björklund, A., 1993: Evaluations of Training Programs: Experiences and Suggestions for Future Research, Wissenschaftszentrum Berlin Discussion Paper 89
- \_\_\_\_\_, 1994: Evaluations of Swedish Labor Market Policy, *International Journal of Manpower*, Vol. 15, No. 5, pp. 16-31.
- \_\_\_\_\_, and H. Regner, 1998: Experimental Evaluation of European Labour Market Policy, in Schmid, G., O'Reilly, J. and K. Schömann (eds): *International Handbook of Labour Market Policy and Evaluation*, pp. 89-114, Edward Elgar, Aldershott.
- Blanchard, O. and J. Wolfers, 2000: The Role of Shocks and Institutions in the Rise of European Unemployment: The Aggregate Evidence, *Economic Journal*, Vol. 110 (March), pp. 1-33.
- Bonnal, L, Fougère, D. and A Sérandon, 1997: Evaluating the Impact of French Employment Policies on Individual Labor Market Histories, *Review of Economic Studies*, Vol. 64, pp. 683-713.

- Brodaty, T, Crépon, B and D. Fougère, 2001: Using Matching Estimators to Evaluate Alternative Youth Employment Programs: Evidence for France, 1986-88, in: Lecher, M. and F. Pfeiffer (eds): *Econometric Evaluation of Labor Market Programs*.
- Breen, R.. 1991: Assessing the Effectiveness of Training and Temporary Employment Schemes: Some Results for the Youth Labor Market, *The Economic and Social Review*, Vol. 22, No. 3, pp. 177-98.
- Calmfors, L., 1994: Active Labor Market Policy and Unemployment A Framework for the Analysis of Crucial Design Features, *OECD Economic Studies* 22.
- Cantillon, B. De Maesschalk, V. and R. Van Dam, 2001: Welvaartsvastheid en Adequaatheid van de sociale Minima, Centrum voor Sociaal Beleid Berichten, November.
- Cantillon, B. De Lathouwer, L. Marx, I., Van Dam, R. and K. Van den Bosch, 2002: Sociale Indicatooren, Centrum voor Sociaal Beleid.
- Cantillon, B. Marx, I. and De Maesschalk, V., 2003a: De Bodem van de Welvaartsstaat van 1970 tot nu, en daarma, Centrum voor Sociaal Beleid Berichten, March.
- \_\_\_\_\_, (2003b): Le Trilleme de la Securité Sociale: Passé, Futur et Present, in Revue de la Securité Sociale Belge, pp. 397-433.
- Cockx, B., 2003: Vocational Training of Unemployed Workers in Belgium, in *Applied Economics Quarterly / Konjunkturpolitik*, Vol. 49, No.1, pp 23-48.
- \_\_\_\_\_, and G. Ridder, 2001: Social Employment of Welfare Recipients in Belgium: An Evaluation, in: *Economic Journal*, Vol. 111 (April), pp. 322-352.
- Cockx, B., Van der Linden, B., and A. Karaa, 1998: Active Labor Market Polices and Job Tenure, Oxford Economic Papers, Vol. 50, pp. 685-708.
- Conseil Superieur de l'Emploi (CSE), 2003: Inventaire des Mesures en Faveur de l'Emploi, Juin.
- D'Addio, A., De Greef, I. and M. Rosholm, 2002: Assessing Unemployment Traps in Belgium Using Panel Data Sample Selection Models, IZA Discussion Paper No. 669.
- Daveri, F. and G. Tabellini, 2000: Unemployment, Growth and Taxation in Industrial Countries, *Economic Policy*, No. 30, pp. 49-104.
- De Koning, J., 1993: Measuring the Placement Effects of Two Placement Schemes for the Long-Term Unemployed, *Empirical Economics*, No. 18, pp. 447-68.

- De Lathouwer, L., 2003: Reforming the Passive Welfare State: Belgium's New Income Arrangements to Make Work Pay in International Perspective, Paper for the Conference "Social Security and Participation in Economic and Social Life", 10<sup>th</sup> International Research Seminar on Issues in Social Policy, FISS, Stiguna Sweden.
- Deleeck, H., 2003: Securité Sociale et Distribution des Revenus en Belgie 1966-1999, mimeo.
- Dolton, P., Makepeace, G. and J. Treble, 1992: Public and Private Sector Training of Young People in Britain, in Lynch, L. (ed.): *Training and the Private Sector*, pp. 261-81, University of Chicago Press, Chicago, IL.
- \_\_\_\_\_, 1994a: The Young Training Scheme and the School-to-Work Transition, Oxford Economic Papers, Vol. 46, No. 4, pp. 629-57.
- \_\_\_\_\_, 1994b: The Wage Effect of YTS: Evidence from YCS, Scottish Journal of Political Economy, Vol. 41, No. 4, pp. 444-53.
- Dolton, P. and D. O'Neill, 1996: The Long-Run Effect of Unemployment Monitoring and Work Search Programs: Some Evidence from the UK, University of Newcastle-upon-Tyne, mimeo.
- Drèze, J. and F. Modigliani, 1981: The Tradeoff between Real Wages and Employment in an Open Economy (Belgium), *European Economic Review*, Vol. 15, pp. 1-40.
- Edin, P.-A., 1988: *Individual Consequences of Plant Closure*, PhD. Dissertation, University of Uppsala.
- Elmeskov, J., Martin, J. and S. Scarpetta, 1996: Key Lessons for Labour Market Reforms: Evidence for OECD Countries' Experiences, *Swedish Economic Policy Review*, Autumn, Vol. 5, No. 2, pp. 205-58.
- Estevao, M., 2002: Regional Labor Markets in Belgium, Belgium Selected Issues, IMF Country Report 02/43.
- \_\_\_\_\_, 2003: Employment and Wage Effects of Active Labor Market Polices, France Selected Issues, SM/03/331.
- Forslund, A. and A. Krueger, 1994: An Evaluation of the Swedish Active Labor Market Policy: New and Received Wisdom, in Freeman, R., Topel, R. and B. Swedenburg (eds): *The Welfare State in Transition*, The University of Chicago Press, Chicago, IL.
- Gerfin, M. and M. Lechner, 2002: A Microeconometric Evaluation of the Active Labor Market Policy in Switzerland, *Economic Journal*, Vol. 112, October, pp. 854-93.

- Green, F., Hoskins, M. and S. Montgomery, 1996: The Effects of Company Training, Further Education, and the Youth Training Scheme on the Earnings of Young Employees, Oxford Bulletin of Economics and Statistics, Vol. 58, No. 3, pp. 469-88.
- Harkman, A., Jansson, F. and A. Tamas, 1996: Effects, Defects, and Prospects An Evaluation of Labor Market Training in Sweden, Swedish National Labor Market Board, mimeo.
- Heckman, J.J., Lalonde, R., and J. Smith, 1999: The Economics and Econometrics of Active Labor Market Programs, in: Ashenfelter, O. and D. Card (eds): *Handbook of Labor Economics*, Volume 3, pp. 1865-2097, Elsevier Science, Amsterdam.
- Heylen, F., 1993: Labour Market Structures, Labour Market Policy and Wage Formation in the OECD, *Labour*, Vol. 7, No. 2, pp. 25-51.
- Jackman, R., Layard, R. and S. Nickell, 1996: Combating Unemployment, Is Flexibility Enough? Discussion Paper No. 293, Centre for Economic Performance, LSE, London.
- Jensen, P., Pedersen, P., Smith, N. and N. Westergard-Nielson, 1993: The Effects of Labor Market Training on Wages and Unemployment: Some Danish Results, in: Bunzel, H., Jensen, P. and N. Westergard-Nielson (eds): Panel Data and Labor Market Dynamics, Contributions to Economic Analysis, No. 222, pp. 227-54, North Holland, Amsterdam.
- Jenssen, P., 1999: *The Danish Youth Unemployment Programme*, Center for Labor Market and Social Research, Aarhus, mimeo.
- Kluve, J. and C. Schmidt, 2002: Active Policy Evaluation, *Economic Policy*, October, pp. 410-48.
- Konings, J, and F. Roodhooft, 1997: How Elastic is the Demand for Labor in Belgian Enterprises? Results from Firm-Level Accounts Data, 1987-94, in *De Economist*, No. 145, pp. 229-241.
- Kraus, F., Puhani, P. and V. Steiner, 1997: Employment Effects of Publicly Finances Training Programs – The East German Experience, Zentrum für Europäische Wirtschaftsforschung Discussion Paper No. 97-33.
- Krueger, A. and B. Meyer, 2002: Labor Supply Effects of Social Insurance, in: Auerbach, A. and M. Feldstein (eds): *Handbook of Public Economics*, Vol. 4, Chapter 33, pp. 2327-92, Elsevier Science, Amsterdam.
- Larsson, L., 2000: Evaluation of Swedish Youth Labour Market Programmes, Uppsala University, Dept of Economics Working Paper 2000-6.

- Laurent, S., 2002: Panel Data Analysis of Individual Wages, mimeo.
- Layard, R., Nickell, S. and R. Jackman, 1991: *Unemployment: Macroeconomic Performance and the Labor Market*, Oxford University Press, Oxford.
- Lechner, M., 2001: Program Heterogeneity and Propensity Score Matching: Application to the Evaluation of Active Labor Market Policies, *Review of Economics and Statistics*, Vol. 84, No.2, pp. 205-20.
- Lopez-Novella, M., 2003: Effets de certain susides temporaires a l'embauche: une analyse microeconometrique des plans plus et du plan avantage a l'embauche, Federal Planning Bureau Working Paper, No. 16-03, Brussels.
- Lucas, R. E., 2003: Macroeconomic Priorities, *American Economic Review*, Vol. 93, No. 1 (March) pp. 1-14.
- Main, B., 1991: The Effects of the Youth Training Scheme on Employment Probability, *Applied Economics*, Vol. 23, No. 2, pp. 367-72.
- Main, B. and D. Raffe, 1983: Determinants of Employment and Unemployment among School Leavers: Evidence from the 1979 Survey of Scottish School Leavers, *Scottish Journal of Political Economy*, Vol. 30, No. 1, pp. 1-17.
- \_\_\_\_\_, and M. Shelly, 1990: The Effectiveness of the Youth Training Scheme as a Manpower Policy, *Economics*, Vol. 57, pp. 495-514.
- Moffitt, R., 2002: Welfare Programs and Labor Supply, in Auerbach, J. and M. Feldstein (eds.) *Handbook of Public Economics*, Vo. 4, Chapter 34, pp. 2393-431, Elsevier Science, Amsterdam.
- NEI, 1999: Benefit dependency ratios, An analysis of nine European, countries, Japan and the US, Rotterdam, Netherlands
- Nickell, S. and R. Layard, 1999: Labor Market Institutions and Economic Performance, in: Ashenfelter, O. and D. Card (eds): *Handbook of Labor Economics*, Vol. 3. Elsevier Science, Amsterdam.
- O'Connell, P. and F. McGinnity, 1997: What works, Who Works? The Employment and Earnings Effects of Active Labour Market Programmes Among Young People in Ireland, Work, *Employment and Society*, Vol. 11, No. 4, pp. 639-61.
- O'Higgins, N., 1994: YTS, Employment, and Sample Selection Bias, Oxford Economic Papers, Vol. 46, No. 4, pp. 605-28.

- OECD, 1993: Employment Outlook, Paris.
- OECD, 2002: Benefits and Wages, OECD Indicators, Paris.
- OECD, 2003: Economic Surveys: Belgium, Volume 2003/1, Paris.
- Payne, J., Lissenburg, S. and M. White, 1996: Employment Training and Employment Action: An Evaluation by the Matched Comparison Method, Policy Studies Institute, London.
- Prescott, E., 2002: Prosperity and Depression, *American Economic Review, Papers and Proceedings*, Vol. 92, No. 2, pp. 1-15.
- Raaum, O. and H. Torp, 2001: Labor Market Training in Norway Effect on Earnings, Labor Economics.
- Regnér, H. 2001: A Nonexperimental Evaluation of Training Programs for the Unemployed in Sweden, *Labor Economics*.
- Ridder, G., 1986: An Event History Approach to the Evaluation of Training, Recruitment and Employment Programs, *Journal of Applied Econometrics*, Vol. 11, pp. 109-126.
- Rosholm, M., 1999: Evaluating Subsidized Employment Programmes in the Private and Public Sector, Center for Labour Market and Social Research, Aarhus, mimeo.
- Scarpetta, S., 1996: Assessing the Role of Labour Market Policies and Institutional Settings on Unemployment: A Cross-Country Study, *OECD Economic Studies*, Vol. 26, No. 2, pp. 43-98.
- Sianesi, B., 2001: An Evaluation of the Active Labour Market Programmes in Sweden, University College London, mimeo.
- Smets, J., 2003: *Mobilisation generale pour l'emploi*, Conference pour l'emploi 2003, Brussels, Conseil Superieur de l'Emploi.
- Thierry, P. and M. Sollogub, 1993: Les politiques françaises de l'emploi en faveur des jeunes une evaluation econometrique, *Revue Economique* Vol. 46, No. 3, pp. 549-59.
- Torp, H., Raaum, O., Hereas, E. and H. Goldstein, 1993: The First Norwegian Experiment, in Jensen, K. and P.K. Madsen (eds): *Measuring Labor Market Measures*, Danish Ministry of Labor, Copenhagen, pp. 97-140, Copenhagen, Denmark.
- van den Berg, G.J. and B. van der Klaauw, 2000: Counseling and Monitoring of Unemployed Workers: Theory and Evidence from a Social Experiment, Free University of Amsterdam, mimeo.

- van Ours, J.C., 2000: Do Active Labor Market Policies Help Unemployed Workers to Find and Keep Regular Jobs?, Tilburg University, CentEr Working Paper 00-10.
- Westergard-Nielsen, N., 1993: The Effects of Training: A Fixed-Effect Model, in Jensen, K. and P.K. Madsen (eds): *Measuring Labor Market Measures*, Danish Ministry of Labor, Copenhagen, pp. 167-200, Copenhagen, Denmark.
- White, M. and J. Lakey, 1992: *The Restart Effect: Does Active Labor Market Policy Reduce Unemployment?* Policy Studies Institute, London, mimeo.
- Whitfield, K. and C. Bourlakis, 1991: An Empirical Analysis of YTS, Employment and Training, *Journal of Economic Studies*, Vol. 18, No. 1, pp. 42-56.
- Zetterberg, J., 1995: Unemployment, Labour Market Policy and the Wage Bargaining System, in Johannesson, J (ed.): *Unemployment, Labour Market Policy and the Wage Bargaining System*, EFA, Stockholm, pp. 57-115.
- Zhou, J. 2003: Fiscal Strategies for Population Ageing, Belgium: Selected Issues, IMF Country Report N. 03/50.
- Zweimueller, J. and R. Winter-Ebner, 1996: Manpower Training Programmes and Employment Stability, *Economica*, Vol. 63, pp 113-30.

# II. FISCAL CHALLENGES FOR HEALTH CARE IN BELGIUM<sup>21</sup>

#### A. Introduction

- 28. Like other advanced countries, Belgium faces considerable upward pressures on health care costs. Over the past decade, it has attempted to contain health spending growth through the application of a tight global norm complemented by various micro-measures. Faced with limited success, however, policies have recently been modified to accommodate the upward trend in health spending. In particular, the new government has raised the budget norm, allowing for an annual 4.5 percent real increase in health spending during 2004-2007 on the understanding that this norm is all-inclusive and overruns will not be tolerated.
- 29. In the years ahead, and particularly after 2010, pressures on health spending are likely to mount further due to population aging. Effective cost containment will thus become increasingly important, and the current policy stance is not likely to be sustainable. The authorities will need to meet the challenge of designing viable medium- and long-term health spending policies.
- 30. Against this background, this chapter takes stock of the Belgian health care system and its strengths and weaknesses in comparison with other advanced countries (section B); provides an overview of the various factors affecting future spending (section C); and discusses the costs and benefits of a global spending norm (section D). Section E concludes.

### B. Belgian Health Care System in International Perspective

### Health care system overview

- 31. The health care system combines a largely private medical practice with a universal public insurance scheme. With the exception of the hospital sector<sup>22</sup>, providers are mostly independent and work on a commercial basis. Medical practitioners have diagnostic and therapeutic freedom, and insurance reimbursements are generally made on a "fee-for-service" basis. Patients have full freedom in choosing their providers and can directly consult specialists without the need for a referral from their general practitioner. There are no waiting lists.
- 32. Virtually all citizens (99 percent) are covered by a mandatory comprehensive public health insurance scheme, which is an integral part of the social security system and a

<sup>22</sup> Forty percent of hospitals are public, with the remainder being mostly non-profit private institutions.

<sup>&</sup>lt;sup>21</sup> Prepared by David Hofman.

competence of the federal government.<sup>23</sup> <sup>24</sup> The insured pay a contribution, dependent on their income level (the lowest income groups pay no contribution at all). However, insurance contributions do not cover the full cost. Under the "global management" structure of the social security system, the insurance scheme receives additional financing out of the general pool of social security contributions.

- 33. Public resources foot about 70 percent of the total health bill, with the remainder paid by patients either for procedures that are not covered by the insurance or as co-payments. Co-payments are about 15 percent on average, varying from a sizable 25 percent for most ambulatory services to much smaller per diem contributions for hospital stay. Total annual co-payments are subject to caps depending on household income and a few other individual characteristics, mainly in order to protect the poor and other vulnerable groups. A small part of health costs is borne by private insurers, as some individuals take up additional insurance against risks that are not covered by the public insurance scheme.
- 34. The public health insurance is managed by a small number of independent non-profit sickness funds. The sickness funds form a solidary system in which profits and losses are pooled. As a result, the funds do not have to select members on the basis of risk profile or income level. However, the set-up also limits the scope for competition between the funds.
- 35. Fees for medical services are negotiated between the sickness funds and the medical profession at the national level, resulting in a uniform reimbursement schedule called the "nomenclature". The federal government has veto power over the nomenclature and also directly sets the prices for drugs. Consequently, prices are effectively controlled.
- 36. The Belgian public insurance based system, combined with private health care providers, is common in advanced countries, in particular those of continental Europe, although there are some differences in the precise mix of public and private domains. For instance, while most continental European countries, including, e.g., France, have a public insurance scheme with (near) universal coverage of the population, Germany and the Netherlands have systems in which private insurers play a larger role. In Germany, high income earners can voluntarily opt out of the public scheme while in the Netherlands eligibility for public insurance is formally restricted to civil servants and lower income

<sup>&</sup>lt;sup>23</sup> Under the public insurance scheme, coverage for the self-employed is less extensive than for workers. The former group is only insured against "major risks".

<sup>&</sup>lt;sup>24</sup> Lower governments' competence in health care issues is limited to health education, preventive care and implementation of certain federal decisions.

<sup>&</sup>lt;sup>25</sup> Reimbursement levels as well as maximum co-payments are set in terms of official reference prices, which still leaves patients exposed to the possible charging of premiums by physicians. The vast majority of physicians, though, adhere to the reference prices (see ¶ 35).

groups.<sup>26</sup> The mix of private and public insurance matters for the amount of public resources involved in the financing of health care (Table II-1). For example, in the Dutch system the contribution of public resources is substantially lower than elsewhere in Europe. In general, the share of public financing tends to be around 70 percent, with Belgium's 72.1 percent virtually at the OECD average.

Table II-1. Health Care Financing in selected Countries (2000)

As percent of total

	The percent of town.		
	Public	Private	Out of Pocket
United Kingdom	80.9	19.1	***
Japan	78.3	21.7	16.8
France	75.8	24.2	10.4
Germany	75.0	25.0	10.5
Italy	73.4	26.6	22.6
Belgium 1/	72.1	27.9	15.0
Canada	70.9	29.1	15.8
Netherlands	63.4	36.6	9.0
United States	44.2	55.8	15.2
OECD Average 2/	72.2	27.8	18.7

Source: OECD 2003 Health Data

37. In other types of systems, the responsibilities of public and private entities differ fundamentally from those described above. In particular, there is the integrated "public health service" approach traditionally applied in the United Kingdom (before recent reforms) and the Nordic countries, where the government provides health care services directly to the population. In this type of system the medical profession is essentially part of the public sector, which is in complete control of the quantity of services provided and the amount of resources spent. It must be noted, though, that in practice there can be an alternative private health care sector, alongside the public service, providing better and faster services to those who are able and willing to pay, as has for instance been the case in the United Kingdom (Koen, 2000).

... . ..

<sup>1/</sup>Belgian out of pocket figure is a staff estimate.

<sup>2/</sup> Unweighted average

<sup>&</sup>lt;sup>26</sup> The Netherlands is currently planning a reform that will end the dichotomy between public and private schemes, and will introduce a single uniform and mandatory insurance package for the entire population. To some extent, the reform entails a switch towards the universal public insurance systems prevalent in other European countries, although it is expected that the new system will be managed by private, commercial insurance companies.

- 38. At the other end of the spectrum is the largely private health care system, applied in the United States. Except for specific groups who benefit from the official Medicare and Medicaid programs, insurance is not provided by the state, but left to the market. Volumes of services and costs are largely determined by the free play of demand and supply, and government intervention is comparatively limited.<sup>27</sup> Health care costs are reflected in the government budget mainly as they relate to the government sponsored programs (still 44 percent of total costs). Despite the targeted official programs, the US system is associated with significantly less than full coverage of the population.
- 39. The sources of financing of health care, and the amount of public money involved, matter for the degree of control governments have on health service and spending levels. This characteristic can have implications for various dimensions of system performance, although in practice seemingly similar systems can still yield very different results in terms of health outcomes, resource use, and cost efficiency. In the following sections, Belgium's health system performance is discussed against the background of performance in other countries.

# Health status and patient satisfaction

- 40. Since ultimately the social goal of public health care provision is the improvement of the health status of the population, system output would ideally be measured in terms of health outcomes. In this regard, Belgium scores generally well above the OECD average, although its health status tends to be somewhat below immediate comparator countries (Table II-2). It must be recognized, however, that the link between health care quality and health outcomes is not straightforward as other factors, such as diet and lifestyle, typically play an important role in overall health. Therefore, the data on population health status should be interpreted with care, and are not a very satisfactory measure of health system performance.
- 41. On alternative measures of system quality Belgium performs better. The equality of access to health care services among various social groups is relatively high (OECD, 2003a). Also, consumers seem to be highly satisfied with the health care system, and more so than those in many other countries (Table II-3). The high degree of patient satisfaction (arguably of prime importance from the political perspective) is likely to result from favorable system characteristics that are directly observable for the patients, such as the easy accessibility of care. It does not necessarily measure the actual medical quality of health care, which tends to

<sup>27</sup> The United States government's tax policies and regulations still have a considerable impact on health care market outcomes.

be difficult for laymen to observe.<sup>28</sup> Also, satisfaction is influenced by the initial expectations of the public.

Table II-2. Health Status in Selected Countries (2001)

	Life Expectancy (at Birth) 1/	,	Potential Years of Life Lost per 1000 inhabitants 3/4/
Japan	81.5	3.1	31
Italy	79.8	4.3	39
Canada	79.4	5.3	40
France	79.3	4.6	43
Netherlands	78.2	5.3	38
United Kingdom	78.1	5.5	41
Germany	77.7	4.5	44
Belgium	77.7	5.0	44
United States	76.8	6.9	55
OECD Average 5/	77.2	6.9	44

Source: OECD

Table II-3. Satisfaction with Health Care (1999)

As percent of total

	Very satisfied	Fairly Satisfied	Total Satisfied
France	16.0	62.2	78.2
Belgium	15.8	61.2	77.0
Netherlands	19.0	54.2	73.2
Germany	7.4	42.5	49.9
United Kingdom	13.0	42.7	55.7
Italy	2.1	24.2	26.3
EU-15 Average 1/	14.7	42.8	57.5

Source: European Commission, as quoted by Docteur and Oxley (2003)

<sup>1/</sup> Data for Germany refer to 1999 and for Belgium, Canada, the United States and OECD average to 2000.

<sup>2/</sup> Data for Canada and the United States refer to 2000.

<sup>3/ &</sup>quot;Potential Years of Life Lost" measures the number of premature deaths caused by preventable or curable diseases.

<sup>4/</sup> Data refer to 1996. OECD average excludes Turkey and Mexico, for which no data were available.

<sup>5/</sup> Unweighted average

<sup>1/</sup> Unweighted average

<sup>&</sup>lt;sup>28</sup> Health care is a so called "credence good", for which the quality—and indeed often the very necessity of purchase—is unobservable to the consumer, even after the product has been consumed (Tirole, 1988, and Darby and Karni, 1973).

## Inputs and capacity

42. Turning to inputs, it appears that Belgium devotes relatively large resources to health care by international comparison, in particular with regards to practicing physicians and pharmacists (Table II-4). Measures for the use of advanced technology equipment (such as CT-scanners, MRI-units and radiation therapy equipment) have not been included in the table because of aggregation difficulties, but broadly confirm the picture.

Table II-4. Resource Use in Selected Countries (2001)

	Physicians per 1000 Inhabitants 1/	Pharmacists per 1000 Inhabitants 2/	Number of Hospital Beds per 1000 inhabitants 3/4/	Hospital Bed Occupancy Rate 3/4/
Belgium	3.9	1.2	4.6	79.9
Italy	4.3	1.0	4.3	75.6
France	3.3	0.9	6.7	78.5
Germany	3.3	0.6	6.3	80.1
Netherlands	3.3	0.1	3.3	66.0
United States	2.7	0.7	2.9	64.5
United Kingdom	2.0	0.6	3.9	84.0
Canada	2.1	0.6	3.2	84.4
Japan	1.9	0.7	***	•••
OECD Average	2.9	0.6	4.2	***

Source: OECD 2003 Health Data

43. The relative abundance of devoted resources is also reflected in measures of the intensity of actual use of health care services by patients, although the differences with comparator countries are somewhat less pronounced (Table II-5). It must be noted that most of these measures are rather crude and can be influenced by various specific factors: e.g., the very high number of doctor visits in Japan reportedly coincides with a very short average duration per visit. Nonetheless, combining the various measures, the Belgium health care system appears to be characterized by high use of resources and a large volume of services.

<sup>1/</sup> Data for the United Kingdom, Japan and Belgium refer to 2000, and for the United States to 1999.

<sup>2/</sup> Data refer to 1990, as for Belgium, the United States and the United Kingdom more recent data are not available.

<sup>3/</sup> Refers to 'acute care' beds only (i.e. long term hospitalized are excluded).

<sup>4/</sup> Data for Belgium refer to 1997-1999, data for Canada, France and Italy refer to 2000.

Table II-5. Health Care Use for Selected Countries

	Number of Doctors' Consultations per Capita 1/	Average Length of Stay in Hospital (days) 2/3/
Japan	14.4	•••
Germany	6.5	9.3
Belgium	7.9	8.0
France	6.9	8.5
Netherlands	5.8	8.6
United States	9.0	5.8
Canada	6.3	7.2
Italy	6.1	7.0
United Kingdom	4.9	7.0

Source: OECD 2003 Health Data

#### Cost performance

- 44. The Belgian health care system has been characterized as a "high-volume/low-price" system, and this still appears to hold. Indeed, as was shown in the previous section, resource use is very high and, in that light, the current level of total health expenditure still seems comparatively favorable. In 2001, Belgium spent 9 percent of its GDP on health care, which is roughly in line with the level one would expect on the basis of its GDP per capita (Figure II-1). Even so, costs are quite high and markedly higher than the OECD (8.4 percent) and EU-15 (8.3 percent) averages.
- 45. Over the past decade, health care costs have risen considerably. According to OECD data, from 1990-2001, total Belgian real health spending per capita increased by 3.5 percent per year on average—twice as fast as per capita GDP (Table II-6). Although health costs increased in other countries too, the rise in Belgium was relatively strong when taking into account that GDP-growth was relatively low during the period and that the health sector was already well developed. Indeed, neighboring France, Germany and the Netherlands, which are broadly comparable in terms of per capita income and health care spending, saw considerably lower spending growth rates.

<sup>1/</sup> Data for the United Kingdom, Japan, France and Canada refer to 2000, and for Germany to 1996.

<sup>2/</sup> Refers to 'acute care' beds only (i.e. long term hospitalized are excluded).

<sup>3/</sup> Data for Belgium refer to 1997-1999, data for Canada, France and Italy refer to 2000.

5500 5000 ◆ USA 4500 4000 Total Health Care Spending 3500 ıwa₀ 3000 ⋄ NOR DEU 2500 <sup>⋄</sup>DEN 2000 GBR �� JPN ⇒ FlN PRT IRL GRC 🌣 ESP 1500 ÇZE 1000 POL MEX\$ 500 0 120 140 160 180 60 80 100 0 20 40 Real GDP

Figure II-1. Belgium: Health Care Spending in 2001 (Per Capita, PPP Based)

Source: OECD, 2003 Health Data.

Table II-6. Total Health Care Spending in Selected Countries: 1990-2001 Average annual real percentage increase per capita

	Total spending increase	Increase in excess of GDP
United Kingdom	4.2	2.2
Japan	3.8	2.7
Belgium	3.5	1.8
United States	3.2	1.5
Netherlands	3.1	1.0
France	2.5	1.0
Canada	2.3	0.7
Germany	2.0	0.8
Italy	1.9	0.5
OECD Average 1/	3.4	1.3

Source: OECD 2003 Health Data

1/ Excludes Slovak Republic and Turkey.

# C. Looking Ahead: Factors Affecting Future Health Spending

# Trends in income, demography and technology

- 46. Like other countries, Belgium faces structural upward pressure on health care costs stemming from a number of sources, including demand induced by rising living standards, technological progress, competition for labor, and aging.
- 47. Rising living standards increase consumer demand for health care. The positive relationship between health spending and per capita GDP is very robust and well established in the economic literature, although the strength of its elasticity is still subject to debate. While many cross-country studies found values significantly exceeding one (e.g. Newhouse, 1977, and Culyer, 1988), suggesting that health care is a luxury good, some recent studies found estimates around unity (Gerdtham and Jöhnsson, 2000). For Belgium, taking a time series approach, the Federal Planning Bureau (FPB) estimates an average elasticity of non-aging-related health care spending to per capita GDP of 1.6 over the period 1971-2000.
- 48. To some extent the strong relationship between income and health spending (in Belgium and elsewhere) is surprising—and rather intriguing—as the mechanism through which higher income translates into higher health care demand is not straightforward. Indeed, given the key role for insurance and the resulting low (or even zero) marginal costs of additional health care consumption, personal income cannot be expected to play much of a role in consumption decisions at the individual level. Rather, the channel would need to be through the political system since it is generally at the government level that health spending budgets are determined. It appears, however, that the political system in turn broadly responds to bottom-up demand pressures. One explanation for this phenomenon could be derived from a strand of literature that draws on Becker's human capital theory: in this view, health care demand follows a more general demand for health that rises with income (Grossman, 1972, 1999).
- 49. Technological progress also pushes spending upwards. Continuously increasing possibilities for curing diseases and improving medical care lead to new demand for health services that were previously unavailable. In addition, correcting for quality improvements, technological progress has been associated with increasing, rather than reducing health care costs. The latter characteristic distinguishes the health care sector from most other sectors, where new technologies tend to lower costs. For the United States, it has been convincingly argued that the development of cost-increasing technologies is a by-product of the price distortions of the insurance system (Weisbrod, 1991, and OECD, 1992). Indeed, as new technologies tend to be quickly covered by the insurance plans, it is their absolute medical benefit that drives innovations, largely irrespective of cost. Since the lion share of medical technological progress is the result of American R&D efforts, this feature tends to be imported by the rest of the world. Consequently, in terms of efficiency, the blessing of technological progress in medicine is mixed.

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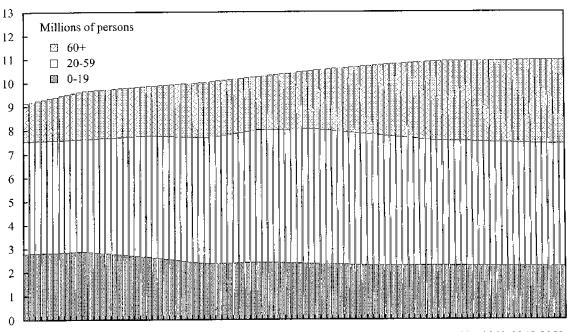
- 50. As in other labor intensive services sectors, labor productivity increases in health care are likely to be low, while remuneration broadly tracks that in other sectors in the economy. As a result, unit labor costs rise faster than the economy-wide average. Gauging the precise size of this effect is difficult, though, because productivity in the health sector is not systematically measured since output of the public sector is generally measured through inputs.
- 51. Increasing life expectancy and population aging contribute to rising costs—a factor that will gain importance in the years ahead. The historical evolution of the Belgian population per age group shows that the ratio of the elderly population to the working age population has been roughly flat on average from 1970 to present (Figure II-2). However, projections of the Federal Planning Bureau indicate that a considerable increase in this ratio lies ahead, in particular between 2010 and 2030. This development will have considerable bearing on health care demand as the elderly consume a disproportionately large share of health services (Figure II-3). Consequently, upward pressures on health costs are likely to be stronger in the upcoming decades than they have in the past.

#### Current policies and recent reforms

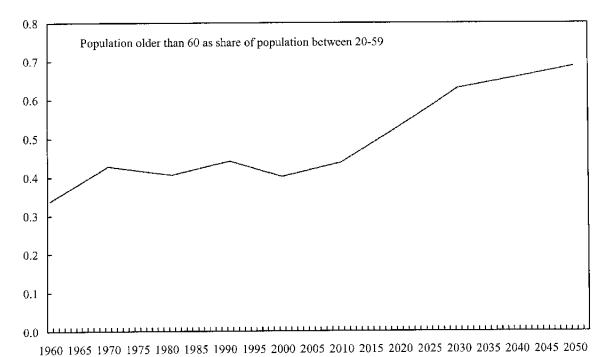
- 52. Modifications of the health care system to date have been mostly gradual, although a relatively substantial and coordinated set of reforms was introduced in 1993 in the context of efforts to comply with the Maastricht criteria. The reforms of the past decade have pursued two broad goals: on the one hand, a broadening of access to the system, in particular for socially vulnerable groups (e.g., low income households and the chronically ill) and the self-employed, and on the other hand, containment of costs, both at the macro and the micro level.
- 53. At the macro level, the government introduced a real annual health care expenditure norm, initially set at 1.5 percent in 1995 and raised to 2.5 percent in 2000, intended to cap the expenditure increases of the public health insurance body. In practice, the norm has not been very effective. In many years, the initial budget increase already substantially surpassed the norm as a result of the granting of "special envelopes" of additional financing to cover specific expenditures. In addition, there have been budget overruns in most years.

<sup>&</sup>lt;sup>29</sup> The age group subdivision here—which differs somewhat from usual definitions of working age and elderly populations—has been chosen such as to be consistent with the 2002 FPB forecasting exercise.

Figure II-2. Belgium: Population Aging, 1960-2050



1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050



Source: National Institute for Statistics, Federal Planning Bureau and Staff Calculations.

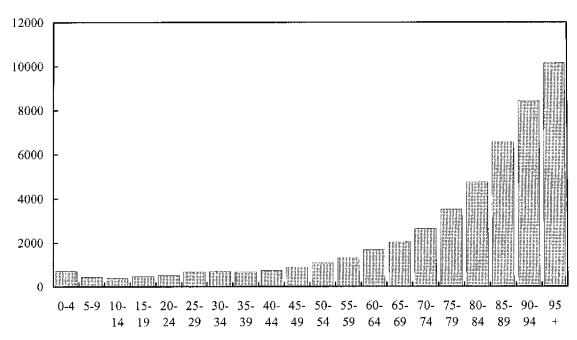


Figure II-3. Belgium: Average Annual Health Expenditure per Person per Age Group (Euros, 2000)

Source: Alliance Nationale des Mutualites Chretiennes

- 54. Other reforms aimed at controlling costs have focused predominantly on increasing micro-efficiency by preventing abuse and waste, and increasing medical efficiency by making providers and consumers more accountable and responsible for their actions, an objective referred to (in French) as "responsabilisation". These ongoing policies have been aimed at all players in the sector: providers, patients, and sickness funds.
- 55. For the medical service providers, the main measures have entailed medical profiling and the increasing use of budget techniques. For each health care provider a file is kept, the "medical profile", detailing its practices (e.g., prescription behavior). The intention is to detect obvious abuse and to establish best practices. Regarding the use of budget techniques, there has been a gradual and limited shift away from fee-for-service reimbursement, towards the use of fixed budgets ("forfaits") for certain services or pathologies. In particular, fixed budgets have been introduced for diagnostic testing, and hospitals are given fixed amounts of financing per admission, or based on daily rates, independent of actual costs. For the remainder however, the fee-for-service system still applies.
- 56. For the patients, the responsabilisation efforts have focused on co-payments and a stronger role for the general practitioner. Co-payment rates have been increased, though at the same time an increasing number of people has been exempted and total annual out-of-pocket payments per household were capped. In 1999, the so-called Universal Medical File ("dossier medical global") was introduced, aimed at increasing efficiency by combining all

information regarding individual patients in one single file. This file is to be assembled and kept by the general practitioner and, as such, the policy is meant to strengthen the role of "first line" care. The medical file started as a pilot for people over 60 years of age and is gradually being extended to the entire population. Participating patients are rewarded with reductions of their co-payments.

- 57. Finally, the sickness funds have formally been made more responsible for their shortfalls. However, this responsibility is partial and limited, and excludes any shortfalls that result from "exogenous factors", including higher-than-expected wage increases. Moreover, it is unclear what the individual (non-profit) sickness funds can really do to cover their shortfalls, as both the contribution rates and the extent of insurance coverage are determined by the state.
- 58. The current government, that took office in mid-2003, intends to broadly continue past policies at the micro level. It is committed to continuing the policy of responsabilisation, to further promote the universal medical file, and to strengthen the role of the general practitioner. The shift towards budget-based financing will also be continued. The gathering and evaluation of data with regards to medical practices will be further strengthened through the establishment of a "knowledge center". Finally, the government plans to further lower the reference reimbursement levels for drugs, in order to stimulate the use of generic medicine over more expensive brand products.
- 59. At the macro level though, the current plans build in faster growth of health spending. In particular, the real growth norm has been raised to 4.5 percent per annum for the period up to 2007, which is higher than the actual average increase in health care costs of the past decade. In addition, the coverage of the insurance package will be widened (*inter alia* in the area of dental care), and the policy of capping individual co-payments will be further extended (*inter alia* by applying the existing caps also to the self-employed). At the same time, in a shift from the previous practice of granting allocations for special purposes, the government has signaled that the overall norm is to be considered all-inclusive.

### Simulations of future health spending

- 60. To assess the sustainability of current health policies and design a viable longer term fiscal strategy, it is important to have a broad idea about where existing and foreseeable future spending trends are going. In the context of an extensive study about the long term effects of aging on social spending, the Federal Planning Bureau has projected that in the next five decades public health care spending is likely to rise by an average of 2.7 percent per year in real terms, from 6.2 percent of GDP in 2000 to 9.3 percent in 2050 (FPB, 2002). About 0.7 percentage points of this increase could be attributed to demographics, while the underlying trend growth of public health spending, at 2.1 percent, was assumed to be only slightly higher than GDP-growth.
- 61. Alternatively, the OECD—as part of a broad membership-wide exercise—has projected Belgian public health care costs to rise to only 8.5 percent of GDP in 2050 (OECD,

- 2003b). However, the OECD estimation method allows exclusively for the anticipated demographic effect (assuming fixed spending profiles per age group) and future real wage growth (approximated by expected productivity growth). In effect, the OECD approach thus assumes the non-demographic trend in health spending to equal productivity growth.
- 62. The assumptions with regards to the non-demographic future trend in health care spending are crucial. The underlying long-term trend is difficult to predict, as it depends, apart from wage developments, also on the pace of technological progress, the evolution of consumer preferences, and, in a public health insurance system, perhaps above all on the room for spending that is provided by the political system through public health policies. Omitting these variables, as in the OECD method, or implicitly assuming considerable policy tightening, as in the FPB exercise, will tend to result in too optimistic a forecast.
- 63. Past trends suggest that the underlying growth rate of health care costs is likely to be substantially higher than that of GDP. Over the period 1971-2000, adjusted for demographics, federal health care spending increased by an average of 3.8 percent per year in real terms, considerably faster than per capita real GDP, which grew by an average of only 2.3 percent over the same period. Applying the elasticity of 1.6 implied in these numbers going forward, assuming an average annual real GDP increase of 1.8 percent, the average underlying per capita health spending growth would amount to 2.8 percent per year. Adding the effects of aging, without policy changes, health care costs could well increase by an average rate of 3.6 percent per year in real terms over the forecasting horizon.
- 64. Figure II-4 shows this alternative scenario next to the 2002 FPB path. Under the historic trend assumption, public health spending will increase to almost 11 percent of GDP in 2030 and to about 15 percent of GDP in 2050, more than 1½ times as much as in the FPB scenario. For illustration purposes, the figure also shows a simple extrapolation of real spending increases following the current policy norm of 4.5 percent per year. Maintaining this spending norm in the future would result in health spending amounting to well over 20 percent of GDP by 2050.

### D. Assessment of the Real Spending Norm

65. Health insurance increases collective welfare, but carries the risk of considerable efficiency loss. Since the probability of having a major accident or illness is relatively small for individuals, while the costs that are incurred in such an event are often larger than households can afford, there is a clear rationale for health insurance. Accordingly, it can be shown that providing health insurance to a population improves social welfare (Arrow,

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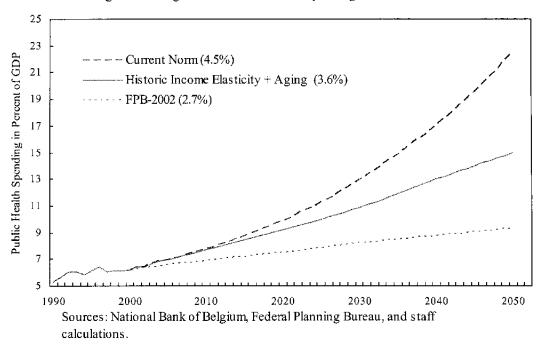


Figure II-4. Belgium: Public Health Care Spending-Three Scenarios

1963). However, insurance also introduces moral hazard. Since consumers pay—even in the presence of substantial co-payments—only a fraction of the costs of the services they receive, a sizable wedge between marginal costs and marginal benefits distorts the proper working of the price mechanism. As a result, demand will tend to exceed the socially efficient level. In the absence of constraints on health supply, this fundamental distortion on the demand side will lead to overly high service volumes.<sup>30</sup>

66. Given its central role in the health care system, the public sector in Belgium—like in most other advanced countries—faces the difficult task of ensuring that output and expenditure levels of the health care system do not diverge too much from socially efficient levels. In the absence of a properly functioning price mechanism the "optimal" output level cannot be observed and setting the desired output and cost level becomes largely a matter of political judgment. In this judgment, the benefits of more (or better) health care will need to be evaluated against the additional costs, either in terms of higher taxes and social security contributions or in terms of alternative uses of tax money. Furthermore, this evaluation needs

<sup>&</sup>lt;sup>30</sup> Although important, moral hazard is not the only phenomenon hampering the proper functioning of the health care market. Other distortions arise from various information problems, externalities, and adverse selection. See Cuttler (2002) for an overview of sources of market failure and rationales for government intervention.

to be an ongoing process, as the efficient output level is likely to change over time due to changing preferences, technological progress and demographic developments.

67. For systems where a large part of health care spending is channeled through the government budget, using global budgets to contain health spending is both obvious and common. Although the application of this technique is most straightforward in national health service arrangements, and notably more difficult in systems with multiple insurers, most countries (including the UK, France, Germany and the Netherlands) use or have used overall budget norms. To a large extent, it is the only way of ensuring consistency of public health spending with overall fiscal policy objectives, provided that the required budgetary discipline can be achieved in practice.

#### Current and past application of the norm

- 68. The Belgian macro norm has thusfar not served its purpose as its application has been particularly weak. As was detailed in the previous section, in practice the norm was normally exceeded even when the health budget was determined, i.e. ex ante, and subsequent further overruns made actual health spending growth rates exceed the norm by wide margins. Since the Belgian authorities have been highly reluctant to accept any limitations on health care accessibility, the emergence of waiting lists, or a larger role for private insurance, the government has responded to the overruns by raising the norm, rather than by imposing budget discipline.
- 69. Since its most recent increase has lifted the norm even above the actual, more or less spontaneous, growth rate of recent periods, it has become even less effective and possibly counterproductive. Indeed, since in practice expenditure ceilings often tend to function as targets, it can be anticipated that the new norm will lead to an increase in actual spending. In any event, given its highly accommodative character, the current norm cannot be regarded as serving its purpose, even if the sector managed to respect the ceiling this time around. The question remains, however, whether a norm can, and should, work in the future.

#### Macro-norms and micro-efficiency

70. Global budget norms for health care can be criticized for not bearing any relation to economic principles or concepts of efficiency.<sup>31</sup> While the concept of a fixed budget itself does not ensure a socially efficient spending level, it may well be a viable second-best solution in an environment where market signals are distorted. The effectiveness of a budget norm in achieving socially optimal outcomes critically depends on the quality of the political judgment with which the norm is set. If the norm is based on an informed view on developments in health care supply and demand, and a well-considered decision as to what

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<sup>&</sup>lt;sup>31</sup> E.g., OECD (1999).

extent these developments are to be accommodated by public funding, it is likely that the norm performs better than the market would without such guidance.

- 71. Improving efficiency at the micro level is important too, since this will reduce the costs of health services per unit, thus allowing for more and/or better care at any given spending level. Pursuing micro-efficiency enhancements, such as through the "responsabilisation" policies, is thus highly desirable. However, micro-efficiency cannot solve the fundamental problem of market failure set out at the start of this section. At any level of operational efficiency, choices with regards to the overall output and cost level will still need to be made.
- 72. Importantly, macro and micro policies tend to be intertwined. By limiting the availability of resources, in principle, macro-budget control could foster efficiency improvements on the micro level. Indeed, as long as basically open-ended financing is provided—as has seemed to be the case in Belgium—system participants have little incentive for improving their efficiency. However, the macro budget constraint needs to be translated to the micro level in such a way that the incentives are felt where actual costs are incurred.
- 73. Therefore, in order to be effective, the global health budget needs to be binding for the insurance providers, and by extension for the hospitals and physicians. This also means that the mechanisms used to reimburse health care providers for their services need to be consistent with the budget approach. In this context, in Belgium, there appears to be considerable tension between the global budget norm on the one hand, and the fee-for-service reimbursement system, essentially without volume controls, on the other hand. Recent reforms that have started to increase the use of budgets on the micro level (*inter alia* through pathology based financing), however, constitute steps in the right direction.
- 74. The precise way in which payment mechanisms and the implied incentives are designed is important, as there are various complex cross linkages and trade-offs between macro control and micro efficiency. As yet, blueprints of the ideal incentive structure do not exist, and most advanced countries are currently struggling with this issue. While delving into the detail of micro incentive structures is beyond the scope of this paper, Box II-1 gives a brief discussion of the type of issues involved in the design of payment schemes.

# Box II-1. Health Care Payment Mechanisms<sup>32</sup>

The way in which physicians and hospitals are paid for their services has implications for the enforceability of macro-budgets as well as for the incentives for efficient resource use. Various schemes are used in practice, each with its specific pros and cons.

Payment of physicians. Schemes for payment of ambulatory care differ widely among countries. On the one hand, there are activity-related payment methods such as applied in Belgium and the United States. Such systems generally allow for little cost control, although some countries have experimented with price adjustment mechanisms that reconciled fee-for-service with fixed overall budgets (e.g. Germany). A supposed benefit of activity related payment is that it gives medical practitioners clear incentives to work hard since their income is directly related to output level. Generating high output, however, does not necessarily imply efficient work methods. For instance, a long-standing concern associated with fee-for-service systems is so called supplier-induced demand; facilitated by the information asymmetry between doctor and patient, physicians can artificially increase output (e.g., by running superfluous diagnostic tests) in order to increase their income.

On the other hand, there are countries that work with fixed salaries for physicians (such as most Nordic countries, Portugal and Spain), or with capitation payment systems (i.e. salary depending on the size of the individual practice, *inter alia* applied in the United Kingdom). A prime benefit of such payment schemes is that they allow for excellent budget control. However, these solutions provide little incentive to physicians to maintain or improve medical quality and service standards. In search of an optimal balance of the benefits and flaws of the various payments systems, several countries apply mixed payment systems that combine salary, capitation and/or fee-for-service elements (e.g. Norway and Denmark).

Payment of hospitals. For hospitals the use of global budgets per institution has been an established practice in several countries (e.g., in the Nordic countries, and until recently the United Kingdom, but also in the public hospitals in France). Roughly the same costs and benefits apply as with the salary payment of physicians above (i.e. tight financial control, but lack of efficiency incentives).

Other countries have used bed-day payments (e.g., Switzerland). Although flat rate bed-day payments also allow for considerable spending control, this type of payment could provide incentives for long average hospital stays, as the first days of hospitalization tend to be much more expensive than subsequent days. Until recently, in Belgium a bed-day payment for pure hospital services was combined with fee-for-service for the physician services consumed during hospital stay. More innovative payment systems pay fixed amounts per patient, according to their specific diagnosis. This so called Diagnostic Related Group (DRG) system was first introduced in the US, and is currently being introduced in Germany and Belgium. DRG payment systems seem to allow for better cost control, while preserving efficiency incentives.

<sup>&</sup>lt;sup>32</sup> This box draws on Docteur and Oxley (2003), who provide a broad overview of issues pertaining to incentive structures in health care and a review of payment mechanisms.

## Macro norms and rationing

75. In any event, a meaningful application of a health spending norm will necessarily imply a certain degree of rationing of health care. Indeed, that would be the very purpose of the norm. Depending on specific policies, this rationing can broadly take two forms: either demand for public financing is curbed through higher cost sharing on the part of the consumer (higher co-payments, less public insurance coverage), or through longer waiting times for non-emergency service. The first option, rationing through price, tends to discriminate against the poor and may thus negatively affect the equity and solidarity elements of the system. The second option, rationing through time, could be seen as discriminating against higher earners, who face a higher opportunity cost of time. Either way, placing restrictions on supply will be unpopular and politically difficult, as has been illustrated by the experiences of the UK and the Netherlands, where cost control mechanisms have effectively broken down under pressure of public dissatisfaction with waiting lines.

#### E. Summary and Conclusions

- 76. Belgium has a very accessible and equitable health care system, and consumer satisfaction is high. The system is characterized by high input levels and service volumes, coinciding with a considerable degree of price control on the part of the government. Overall health expenditure is still roughly in line with the expected level on the basis of per capita GDP, but over the past decade it has been rising faster than in many comparator countries.
- 77. In the years ahead, upward pressure on health care spending is expected to increase. Existing pressures, stemming from rising living standards, technological progress and real unit labor cost increases, can be expected to continue unabated, while population aging will become an increasingly important factor, particularly in the period between 2010 and 2030. Accommodating existing and foreseeable future trends will result in a very strong increase in public health care cost relative to GDP, thus posing a considerable challenge to fiscal and health policies.
- 78. The annual real health expenditure growth norm that is used by the Belgian government to curb spending has not been very successful, as it has been structurally exceeded. In addition, at its current level of 4.5 percent—which is appreciably higher than the actual growth over the past decade—the norm itself is unsustainable. Despite the disappointing past experience, a continued use of an overall spending norm seems to be warranted. In particular, when used judiciously, a spending norm can be a useful tool for addressing the fundamental problem of excess demand in the health care sector. Also, by posing limits to the availability of resources, it provides a basic incentive for efficiency enhancement that can support the existing policies that aim at improving micro-efficiency. However, in order to be effective, the norm will have to be applied with greater discipline and payment mechanisms at the micro-level need to be made incentive-compatible with the macro-budget approach. Public acceptance that a meaningful application of a budget norm will imply a certain degree of rationing of health care services will need to be fostered.

#### References

- Arrow, Kenneth J., 1963, Uncertainty and the Welfare Economics of Medical Care, *American Economic Review*, Vol. 53, No. 5, pp. 941-973.
- Culyer, Anthony J., 1988, *Health Expenditures in Canada: Myth and Reality; Past and Future*, Canadian Tax Foundation: Paper No. 82
- Cuttler, David M., 2002, Health Care and the Public Sector, in A. Auerbach and M. Feldstein (eds) *Handbook of Public Economics, Amsterdam: Elsevier*.
- Darby, M.R. and E. Karni, 1973, Free Competition and the Optimal Amount of Fraud, *Journal of Law and Economics*, Vol. 16, pp. 67-88
- Docteur, Elizabeth and Howard Oxley, 2003, *Health-Care Systems: Lessons from the Reform Experience*, OECD Health Working Paper No. 9.
- Federaal Planbureau, 2002, Verkenning van de Financiële Evolutie van de Sociale Zekerheid 2000-2050, Occasional Paper, Brussels
- Gerdtham, Ulf-G. and Bengt Jönsson, 2000, International Comparisons of Health Expenditure, in A.J. Culyer and J.P. Newhouse (eds) *Handbook of Health Economics, Amsterdam*: Elsevier.
- Grossman, Michael, 1972, The Demand for Health: A Theoretical and Empirical Investigation, New York: NBER.
- Grossman, Michael, 1999, *The Human Capital Model of the Demand for Health*, NBER Working Paper No. 7078.
- Koen, Vincent, 2000, Public Expenditure Reform: the Health Care Sector in the United Kingdom, OECD Economics Department Working Paper No. 256.
- Newhouse, J.P., 1977, Medical Care Expenditure: A Cross National Survey, *Journal of Human Resources*, Vol. 6, No. 3 (summer).
- OECD, 1992, Economic Survey of the United States, Paris
- OECD, 1999, Economic Survey of Belgium, Paris
- OECD, 2003a, Assessing the Performance of Health Care Systems: A Framework for OECD Surveys, Mimeo, Paris.
- OECD, 2003b, Spending on Health and Long Term Care: Projections to 2050 Revisited, Mimeo, Paris.

Tirole, Jean, 1988, The Theory of Industrial Organization, Cambridge (MA): MIT Press.

Weisbrod, Burton A., 1991, The Health Care Quadrilemma: An Essay on Technological Change, Insurance, Quality of Care, and Cost Containment, *Journal of Economic Literature*, Vol. 29, No. 2, pp. 523-552.